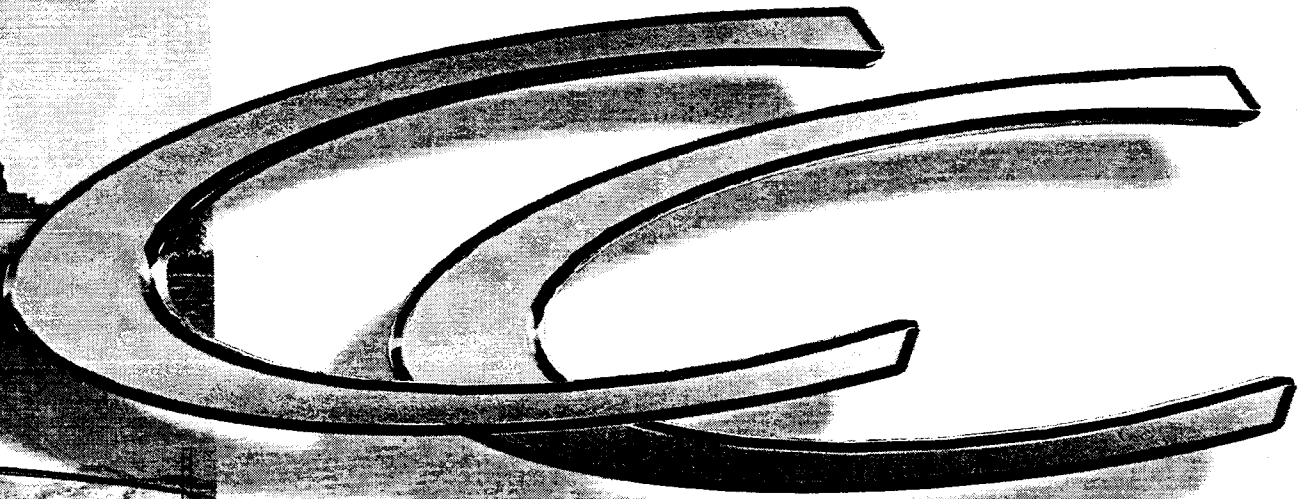


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CrossCountry



Owner's Manual

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

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

If you have any questions regarding operation, maintenance or service, please contact your Coachmen dealer so he can assist you. Your 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 Industries reserves the right to present edited portions of these materials.

Coachmen Industries, Inc. works year round to improve its product. As a result, all specifications, equipment and prices quoted are subject to change without notice or obligation to the consumer.

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 unit. Ask your authorized dealer, or see the current brochure for information on the availability of standard or optional equipment.

Thank you for selecting our product. The entire Coachmen Industries family strives to merit your confidence.

Table of Contents

INTRODUCTION	6	Fire Extinguisher	18
Warranty	4	Carbon Monoxide Detector	18
Safety Regulations	5	ELECTRICAL SYSTEM	19
Taking Delivery	6	120-volt System	19
Obtaining Service	6	Ground Fault Interrupter	19
Travel Preparations	7	Shoreline Connection	19
Important Documents	7	12-Volt System	20
Tourist Information	7	Power Converter	20
Visiting Canada or Mexico	8	In-Line Fuses	20
LOADING/WEIGHING	10	Auxiliary Generator	20
Weight Determinations	10	FRESH WATER SYSTEM	20
Definitions	11	Sanitizing the Water Tank	21
Vehicle Weighing	11	Water Pump	22
OPERATING YOUR VEHICLE	12	DRAINAGE/SEWER SYSTEM	22
Seat Belts	12	Emptying the Holding Tanks	22
Clearance	12	LP GAS SYSTEM	22
Mirrors	12	Climate Differences	23
Instrument Panel	12	Regulator Pressure	24
Pulling into Traffic	12	LP Leak Detector	24
Passing	12	LP Gas Regulator Freeze-Ups	24
Braking	12	Filling LP Gas Tanks	24
Stopping Distance	13	LP Gas Line Check	24
Emergency Stopping	13	APPLIANCES/ACCESSORIES	25
Parking on a Grade	13	Rear Vision Camera	25
Downgrades	13	Electric Step	25
Upgrades	13	TV Antenna/Cable System	25
Overheating	13	Television	25
Swaying or Fishtailing	13	Video Cassette Recorder	26
Turning Corners	13	AM/FM Stereo Cassette Player	26
Backing	13	Coffeemaker	26
Freeing a Stuck Vehicle	13	Furnace	26
Tire Change	14	Refrigerator	27
Recovery Towing	14	Battery Disconnect	28
LEVELING JACKS	14	Gas Water Heater	28
AIR CYLINDER SUSPENSION	15	Range, Range Hood, Oven	29
AIR BRAKE SYSTEM	15	Microwave Oven	30
Air Tank Drains	16	Monitor Panel	30
CAMPING/LIVING AREA	16	VEHICLE MAINTENANCE	30
Campsite Selection	16	Storage	30
Set-Up	16	Winterization	31
Leveling	16	Interior/Exterior Care	31
Slide-Out Room	16	Appliance ID Form	34
Air Quality	17	Travel Record	35
Condensation	17	Maintenance Record	36
Sofa Bed	18	Maintenance Schedule	37
Driver and Passenger Chairs	18	Pre-Travel Check	38
Windshield Drapes	18	Travel Preparation Checklist	39
Emergency Exit Window	18	Troubleshooting	40
Smoke Detector	18		

NEW RECREATIONAL VEHICLE LIMITED WARRANTY



Scope

The Coachmen "Buckstopper" Limited Warranty applies to new vehicles sold by an authorized Coachmen RV dealer for one year from either the original retail purchase date or the date the vehicle was first put in to use, or the first 15,000 miles of total use, whichever occurs first. A signed warranty registration form must be received by Coachmen to activate your warranty. This warranty applies only to the original owner.

Coverage

During the warranty period, Coachmen Recreational Vehicle Company will make any repairs to both the "recreational vehicle" and "automotive" portions of the product as described below, which might become necessary due to defects in original material or workmanship. We will repair or replace any defective part at no cost to you. Because of design changes, we may substitute parts or components of substantially equal quality.

"Recreational vehicle" within this limited warranty means all portions of the product which are used or primarily maintained as a mobile dwelling, and excludes any components that are typically found in an automobile. These "RV" portions, also referred to as "living facilities", include but are not limited to: the plumbing system and fixtures, LP system, appliances, roof air conditioner(s) and RV furnace (and related ducting), electrical systems unrelated to the propulsion of the vehicle, RV entrance door, exterior compartments, and windows other than the windshield and driver and passenger window.

"Automotive" within this limited warranty means those portions of a motorized product (if applicable) which were installed by Coachmen, and which may include: the cockpit driver and passenger door, windshield and driver and passenger window, windshield wipers, dash air conditioner and heater, dash gauges and controls, exterior automotive lights and mirrors.

Defects or damage to interior and exterior surfaces, trim, upholstery and other appearance items that may occur prior to delivery usually are corrected during the inspection process at the manufacturing facility and the dealership. If you have any concern over any such item when you take delivery of your vehicle, please notify your dealer without delay.

Exclusions

The "Buckstopper" Limited Warranty applies only to materials and components originally built or installed by Coachmen. It does not cover the automotive chassis' components or tires; batteries, generators or televisions which are warranted separately by their manufacturers. It also does not cover damage caused by lack of proper use, improper operation or maintenance in accordance with the Owner's Manual, overloading, abuse, collision, environmental damage, alterations or improper repairs, service call charges, corrosion, cosmetic flaws, or normal deterioration/wear of fabrics and carpeting. Also excluded: any product not used for its customary purpose; any product not registered and normally used in the United States or Canada; use of the vehicle for rental, and any promises made by any person beyond those stated in this Warranty.

To Obtain Service

For warranty service, simply contact an authorized Coachmen Dealer or Service Center for an appointment or consultation, then take the vehicle (at your expense) to the servicing facility.

Limitation of Implied Warranties:

IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE TERM OF THIS LIMITED WARRANTY. There is no warranty of any nature made by Warrantor beyond that contained in this Warranty. No person has authority to enlarge, amend or modify this Warranty. The dealer is not the Warrantor's agent but an independent entity. Warrantor is not responsible for any undertaking, representation or warranty made by any dealer or other person beyond those expressly set forth in this Warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Disclaimer of Consequential and Incidental Damages:

THE ORIGINAL PURCHASER OF THE VEHICLE AND ANY PERSON WHOM THE VEHICLE IS TRANSFERRED, AND ANY PERSON WHO IS AN INTENDED OR UNINTENDED USER OR BENEFICIARY OF THE VEHICLE SHALL NOT BE ENTITLED TO RECOVER FROM WARRANTOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE VEHICLE, including, but not limited to, transporting the vehicle for service, lodging, meals, loss of use of the product, legal expenses, loss or damage to personal property, inconvenience or loss of income. Some states do not allow exclusion or limitation of consequential or incidental damages, so the above exclusions may not apply to you.

Legal Remedies

ANY ACTION TO ENFORCE THIS WARRANTY SHALL NOT BE COMMENCED MORE THAN ONE (1) YEAR AFTER THE EXPIRATION OF THIS WARRANTY. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

It is the intent of Coachmen RV Company to satisfy our valued customers. If you have a problem obtaining satisfactory and timely warranty service that may substantially impair the use, value or safety of your Coachmen product, please call us on our toll free line (1-800-453-6064) so that we may attempt to resolve your concerns.



OUR WARRANTY

GENERAL—Your new Coachmen is backed by our position as an industry leader, achieved through decades of experience in producing RV's noted for their quality and dependability. Our warranty demonstrates our confidence in our products and is a commitment to customers' continued satisfaction.

Every effort has been made to provide you with a safe, dependable recreational vehicle. Your Coachmen complies with applicable federal and state regulations and the requirements of ANSI A119.2, the nationally recognized "Standard for Recreational Vehicles—Installation of Plumbing, Heating and Electrical Systems." The Recreation Vehicle Industry Association (RVIA) periodically inspects our production and assists in maintaining strict compliance with installation and safety standards for those systems. Similar periodic inspections of the systems are made by representatives of various states. You, the owner, must also perform periodic inspections of the systems and provide a program of preventive maintenance as described in the Owner's Manual and instruction booklets.

WARRANTY SERVICE—We recommend that warranty service be performed by the authorized dealer from whom you purchased your Coachmen because of the dealer's continued and personal interest in your satisfaction. But if you are traveling or in the event that you move, service under the warranty will be performed by any authorized Coachmen dealer. Whenever possible, make an appointment to avoid unnecessary delays. Non-emergency repairs can be done at a later date.

Always Carry Your Owner Registration Card, which must be presented to obtain warranty service. The card is proof of purchase and provides the date of retail sale, which are necessary to determine warrantability. If you cannot locate an authorized Coachmen dealer, contact Coachmen Owner Relations, (219) 825-7000 or (800) 453-6064.

WARRANTY PERIOD—The warranty period is for 12 months or the first 15,000 miles, whichever comes first. It begins on the date you purchase your new recreational vehicle, or the first in service date, whichever is first.

WHAT IS COVERED—The Manufacturer warrants to owners that an authorized Coachmen dealer will make repairs made necessary by defects in material or workmanship during the warranty period. Such repairs will be made without charge for parts and labor to the owner.

WHAT IS NOT COVERED—Our warranty does not cover the motor home chassis, tires, batteries or optional TVs and generators, repairs or adjustments required because of neglect, accident, misuse, failure to follow service and use instructions, normal wear and/or exposure, unauthorized repairs or unauthorized modifications to any part of the systems or body that might cause defective performance or dealer installed options.

Your new Coachmen is designed as a temporary living quarters for recreational camping, travel or seasonal use and not as a permanent dwelling place. Usage as a permanent accommodation is a breach of warranty and we are not liable for any damage that results because of such misuse.

Coachmen does not assume responsibility for loss of use of the recreational vehicle, loss of time, inconvenience or expenses due to equipment failures (refer to the warranty statement for other exclusions and limitations).

OTHER WARRANTIES—Be certain to complete and submit to the appropriate manufacturers the warranty forms for tires, batteries, chassis and optional TVs and generators, which are not covered by our warranty. If service or parts are required for these products, please refer to the furnished list of factory-authorized service centers. If the list is not available, write or call the manufacturer concerned to obtain the location of the nearest authorized service center.

CUSTOMER SERVICE—Owner satisfaction and goodwill are of primary concern to Coachmen. We recognize that our continued success as a leading manufacturer of recreational vehicles depends upon your complete confidence in our products and service. A pleasant and effective relationship through our dealers is as important as maintaining the technical excellence of our product. Your authorized dealer will assist you in providing service, maintenance, selection of options and instructions concerning the operation of your recreational vehicle.

Occasionally, a warranty or service matter may not be handled to your satisfaction. Often it is the result of a misunderstanding and can be resolved at the dealer level. Discuss the situation with the dealership management. If you cannot find satisfaction at the dealer level, we invite you to contact our Customer Service Department, where we will make every effort possible to find an agreeable solution. In most instances, we will eventually refer you back to the local dealer with our recommendations.

Write or telephone: Owner Relations Department, P.O. Box 1000, Middlebury, IN 46540, (219) 825-7000 or (800) 453-6064.

IMPORTANT SAFETY REGULATIONS

... please read carefully.

LP GAS SYSTEMS AND APPLIANCES

Coachmen Industries is required to furnish the following consumer information as provided by the National Fire Prevention Association and the American National Standards Institute. The information and warnings found here may also be found in other sections of this Owner's Manual. Please see sections titled "Liquid Petroleum Gas System" and "Appliances" for other safety and operating information.

WARNING!

LP gas containers shall not be placed or stored inside the vehicle. LP gas containers are equipped with safety devices which relieve excessive pressure by discharging gas to the atmosphere.

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.

A warning label has been located in the cooking area 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, and 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.

WARNING!

Portable fuel-burning equipment, including wood and charcoal grills and stoves, shall not be used

inside this recreational vehicle. The use of this equipment inside the recreational vehicle may cause fires or asphyxiation.

WARNING!

Do not bring or store LP gas containers, gasoline, or other flammable liquids inside the vehicle because a fire or explosion may result.

A warning label has been located near the LP gas container. This label reads: DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY.

Overfilling the LP gas container can result in uncontrolled gas flow which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume as liquid LP gas.

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

IF 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 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.

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. Make sure that 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. To help you enjoy it, you'll find in this owner's manual many useful tips for camping trips as well as basic operation and maintenance information for your Coachmen unit's systems and appliances.

TRY A SHORT TRIP FIRST. The experience you will gain from this will help make your future RVing more enjoyable. To complement the standard and optional equipment you've chosen for your unit, there are many other accessories available. You may wish to use your unit several times before you invest in these accessories. What may be a necessity for one RVer could prove to be of no value to you. Remember, your dealer is always ready to help and advise you. We go into great detail in this manual and for good reason. If you are a first-timer, we want you to learn to operate your recreational vehicle correctly, to be able to use its components, appliances and any optional equipment in the most efficient manner. At first glance, you may be overwhelmed by all the detail. But after you've used your new recreational vehicle a couple of times, you'll be able to perform all the checks, start-ups and systems in much less time than it takes to read our instructions. If you're a veteran RVer, you know that things change and a quick review of this manual will bring you up to date on what's new. So read on. Happy camping!

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

TAKING DELIVERY

Your recreational vehicle 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 Packet 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, stressing the coverage, 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 get 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 (SEE LIMITED WARRANTY). 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 him.

OBTAINING SERVICE

Give Thought to the Appointment Time . . .

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

Prepare for the Appointment . . .

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

Prepare a List . . .

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

Be Reasonable with Your Requests . . .

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

You Can't Look Over the Technician's Shoulder . . .

Don't be offended when you are told you can't watch the work being done. Insurance requirements forbid the admission of customers to a service repair area.

Inspect the Work Properly . . .

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

TRAVEL PREPARATIONS

It's always a good idea to plan your trips. Make arrangements for someone to check your house periodically while you're on your trip. Stop mail and newspaper delivery. If you intend to be away for more than two weeks, request police surveillance for your house. Carry an extra set of vehicle and house keys with you on a separate key ring. Fill your fresh-water tank before leaving. When traveling in winter, however, don't fill the water tank until the interior of your unit is thoroughly warmed or until you reach your destination. Decide on the various items of equipment, clothing, food and other supplies you'll need for the length and destination of your trip. Each moment you spend loading your RV is time you lose from the length of your stay. To reduce loading time, stock your RV with a supply of plastic or paper dinnerware, stainless steel or plastic flatware, pots, pans, towels and bedding. Try to use paper, plastic and aluminum whenever possible.

They are lighter and less likely to break when the vehicle is moving. If you are planning an extended trip, pack only enough food for two or three days; you can replenish your supply along the way. Plan meals so that fresh or refrigerated items are used before they spoil. Keep a basic supply of seasonings (sugar, salt, pepper, spices) in your RV. See the TRAVEL PREPARATION CHECKLIST at the back of this manual for more tips on what to pack for your trip.

IMPORTANT DOCUMENTS

Always carry your vehicle registration, insurance policy card(s) and owner warranty registration. If you lend your RV, it is best to give the borrower a notarized letter of approval 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

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

TOURIST INFORMATION

Obtain current road maps and tourist information for each state you'll visit or drive through. You also may want to purchase a tourist guide book. If you will be visiting federally-operated national parks, monuments and recreation facilities, you might find the Golden Age Passport and/or the Golden Eagle Passport useful. These passports can help families cut expenses at areas where fees are involved.

GOLDEN AGE PASSPORT is a free lifetime pass for persons age 62 and over. It covers all admission fees and includes a 50 percent discount on usage fees (except fees charged by privately operated concessions). This passport is available only at park service offices and at parks where entrance fees are charged. It cannot be obtained through the mail or at post offices. To obtain the Golden Age Passport, you will need proof of age, such as a driver's

license. (Medicare cards are not accepted as proof of age.) If you do not have adequate proof of your age, be prepared to sign an affidavit swearing that you are at least 62 years of age. The GOLDEN EAGLE PASSPORT is designed for persons who plan to visit in a single year several parks or federally-operated facilities. It covers all admission charges, but does not cover usage fees. It is good only during the calendar year in which it is issued. It may be purchased in person or through the mail from the National Park Service Headquarters, department of the Interior, Washington, D.C. 20240; at regional National Park Service offices, or at similar facilities where entrance fees are charged. Both Golden Age and Golden Eagle Passports cover admission fees for passengers accompanying the permit holder. Where entry to the recreation facility is not by private vehicle, such passport covers only the permit holder and the permit holder's immediate family.

VISITING CANADA OR MEXICO

The information in this section is general and is subject to change by the Canadian or Mexican government. For specific information, including rules for re-entering the U.S., as well as points of interest and campsites, contact the consulate nearest the point at which you plan to enter the country. Passports or visas are not required for entry into Canada or Mexico. You must, however, carry your birth certificate, voter registration card, baptismal certificate or similar proof of identity when entering one of these countries. Naturalized U.S. citizens should carry their naturalization papers or other proof of citizenship. Persons under 18 years of age should carry a notarized letter from their parents or guardians giving them permission to travel in Canada or Mexico.

Note: *Your driver's license is not considered valid proof of identification.*

No special driver's license or permit is necessary in either country; but, renew your license if it has expired, or will expire during the trip. Proof of vehicle ownership is required at the border. If you are using someone else's unit, you should have a notarized letter authorizing its use.

MEXICO

A tourist card is necessary for visiting in Mexico if you will be staying more than 72 hours or travel more than 40 miles from the border. Cards can be obtained at the port of entry or from a Mexican consulate.

Vehicles

Mexico requires a vehicle permit for every self-propelled vehicle. The permit can be obtained only from Mexican Auduana (customs) offices upon presentation of tourist card, vehicle registration and title or notarized statement from owner. Your insurance policy is not valid in Mexico. Temporary insurance must be purchased from Mexican companies (usually offices are located near the border).

CB Radio

Mexico currently prohibits the use of CB radios.

Hunting and Fishing

Hunting and fishing laws in Mexico are extremely complicated. To request information, contact:

Secretaria de Comunicaciones
Estados Unidos Mexicanos
Mexico DF

Dogs and Cats

Mexico requires a certificate signed by a licensed veterinarian. The certificate should describe the pet and show that the pet has been vaccinated for rabies within the past six months. A fee is charged for the required verification of the certificate by a Mexican consulate.

CANADA

Vehicles

Canada requires a Canadian Non-Residential Interprovincial Motor Vehicle Liability Insurance card, which is available only from U.S. agents. All provinces in Canada require evidence of financial responsibility if visitors are involved in an accident. Limits vary from province to province. Contact your insurance agent for details.

CB Radio

CB radio operation in Canada requires a temporary license. To obtain such a license, write to:

Regional Director
Telecommunications Regulation Branch
Department of Communications
20th Floor
2085 Union Avenue
Montreal, Quebec H3A 2C3
Canada

Hunting and Fishing

Revolvers, pistols and fully-automatic firearms are prohibited in Canada. Each province has its own laws and licensing requirements. You must provide a written description and the serial number of each gun at the border. A license must be obtained from the province in which you intend to hunt or fish. Further information can be obtained by writing to the Department of Lands and Forests, Wildlife Branch, in the province you intend to visit.

Dogs and Cats

Canada requires a certificate signed by a licensed veterinarian in the U.S. or Canada stating that your dog has been vaccinated for rabies within the past twelve months. The certificate must contain a description of the dog and date of vaccination. Puppies under three months need no certificate. There is no restriction on the entry of healthy cats.

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 that they cannot slide during a sudden stop and cause damage. (loose cargo can alter the balance you had when you started.). Lighter items can be stored in overhead cabinets or other areas. Remember to leave space and weight allowance for souvenirs and other items you may purchase during your travels. A properly loaded unit can help conserve fuel and can prevent excessive wear on your vehicle's automotive system.

WEIGHT DETERMINATIONS

It is extremely important that you weigh your unit before you leave on a trip. Check the Gross Axle Weight Rating (GAWR) and the Gross Vehicle Weight Rating (GVWR)

found on the Federal Sticker and the unit weight information sheet affixed to each vehicle. The Federal Sticker or certificate lists the unit Serial Number and the front and rear GAWR and GVWR. It is located on the inside of the driver's door or to the left of the driver's seat. We suggest that you record this sticker information in the space provided here to ensure that you always have the information close at hand.

GVWR GAWR Front

GAWR Rear _____ with _____ tires

RIMS _____ at _____ PSI cold _____

You can weigh your vehicle at a grain elevator, sand and gravel dealer or government weighing station. Make an appointment to weigh your unit fully loaded. There may be a small fee for weighing your vehicle; however, it is an investment in safe traveling and peace of mind. Check your Yellow Pages for the address and telephone number of the weighing facility nearest you.

(SAMPLE)

MOTORIZED - UNIT WEIGHT INFORMATION SHEET

MM/DD/YY

Coachmen motorhomes are designed to allow for a wide variety of uses from extended trips with two people to short trips with multiple people. Accordingly, each unit allows ample room for sleeping, seating, fluids and cargo. While the customer is the beneficiary of this design, the customer also bears the responsibility to select the proper combination of passengers, cargo load and towed vehicle without exceeding the chassis weight capabilities.

Seat belts are required to be worn in most states, and should always be used for passenger safety. Seat belts have been provided at most seating locations to allow convenience in selecting which seat to occupy. However, it is not intended that all seating positions equipped with seat belts may be occupied while the vehicle is in motion, without regard to other weight factors.

DO NOT EXCEED THE CARGO CARRYING CAPACITY OF THIS VEHICLE

PRODUCT: CATALINA-MH

YEAR: 2000

MODEL: 804

SER # 12345678901234567

VIN # 12345678901234567

FRONT GAWR: 7000

LBS

REAR GAWR: 11000

LBS

TAG GAWR:

LBS

ACTUAL WEIGHTS AS MANUFACTURED

LEFT FRONT: 2550

LBS

LEFT REAR: 4390

LBS

LEFT TAG:

LBS

RIGHT FRONT: 2860

LBS

RIGHT REAR: 4860

LBS

RIGHT TAG:

LBS

18,000 LBS. GVWR (GROSS VEHICLE WEIGHT RATING) is the maximum permissible weight of this fully loaded motorhome

5,059 LBS. UVW (UNLOADED VEHICLE WEIGHT) is the weight of this motorhome as manufactured at the factory with full fuel, engine oil, and coolants. The UVW does not include cargo, fresh water, LP gas, occupants, or dealer installed accessories.

616 LBS. SCWR (SLEEPING CAPACITY WEIGHT RATING) is the manufacturer's designated number of sleeping positions multiplied by 154 pounds (70 kilograms).

1455 LBS. CCC (CARGO CARRYING CAPACITY) is equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water heater), full LP-Gas weight and SCWR

26,000 LBS. GCWR (GROSS COMBINATION WEIGHT RATING) means the value specified by the motorhome manufacturer as the maximum allowable loaded weight of this motorhome with its towed trailer or towed vehicle. Actual GCWR of this vehicle may be limited by the sum of the GVWR and the installed hitch rated capacity. See hitch rating label for detail.

CARGO CARRYING CAPACITY (CCC) COMPUTATION:

LBS

(KG)

GVWR.....

18,000

(8,172.0)

Minus UVW.....

15,059

(6,838.8)

Minus fresh water weight of 100 gallons @ 8.3 lb/gal (3.8kg/gal).....

830

(376.8)

Minus LP-Gas weight of 8.9 gallons @ 4.5 lb/gal (2kg/gal).....

40

(18.6)

Minus SCWR of 4 persons @ 154 lb/person (70 kg/person).....

616

(279.7)

CCC for this motorhome*.....

1,455

(660.6)

*Dealer installed equipment and towed vehicle tongue weight will reduce CCC

OPTION WEIGHTS IN LBS. (Net Weight Added For Manufacturer Installed Options)

ALL WEIGHTS ARE APPROXIMATE and provided to assist the operator in the proper loading of this vehicle.
CONSULT OWNER'S MANUAL FOR SPECIFIC WEIGHING INSTRUCTIONS AND TOWING GUIDELINES!

WARNING!

Exceeding the GVW and GAW ratings for your unit could result in serious damage to the suspension, frame or other components of your vehicle. Use of heavier suspension components (springs, shocks, axles) or heavier tires does not increase the weight ratings printed on the vehicle's certification plate. The GAWR of each axle is determined by the axle system components with the lowest weight-carrying capacity. To avoid overloading your vehicle, check the GVWR and GAWR.

WEIGHT DEFINITIONS

GVWR (GROSS VEHICLE WEIGHT RATING) is the maximum permissible weight of this fully loaded motorhome.

UVW (UNLOADED VEHICLE WEIGHT) is the weight of this motorhome as manufactured at the factory with full fuel, engine oil and coolants. The UVW does not include cargo, fresh water, LP gas, occupants or dealer installed accessories.

SCWR (SLEEPING CAPACITY WEIGHT RATING) is the manufacturer's designated number of sleeping positions multiplied by 154 pounds (70 kilograms).

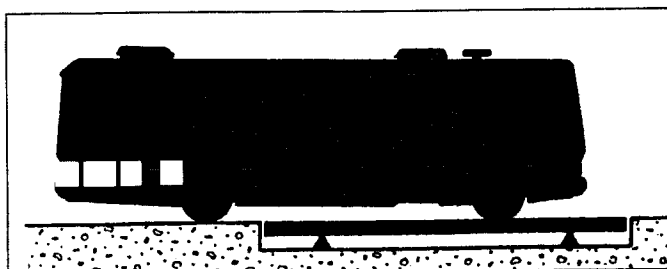
CCC (CARGO CARRYING CAPACITY) is equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water heater), full LP gas weight and SCWR. A sample Computation of the Cargo Carrying Capacity is included on the Weight Information Sheet.

GCWR (GROSS COMBINATION WEIGHT RATING) means the value specified by the motorhome manufacturer as the maximum allowable loaded weight of this motorhome with its towed trailer or tow vehicle. **Actual GCWR of this vehicle may be limited by the sum of the GVWR and the installed hitch rated capacity. See hitch rating label for detail.**

GAWR (GROSS AXLE WEIGHT RATING) is the allowable weight, including cargo, which can safely be supported by each axle.

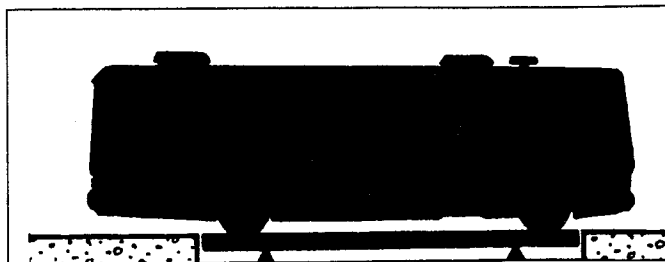
VEHICLE WEIGHING

STEP 1—Drive only the front wheels of the unit onto the scale. Compare the weight to the front GAWR listed on the Federal Sticker.



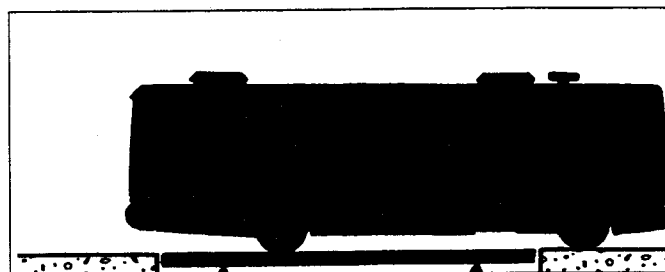
FRONT GROSS AXLE WEIGHT

STEP 2—Pull forward so that the front and rear axles are on the scale. Compare the weight to the GVWR listed on the Federal Sticker.



GROSS VEHICLE WEIGHT

STEP 3—Pull forward so that only the rear axle is on the scale. Compare the weight to the rear GAWR listed on the Federal Sticker.



REAR GROSS AXLE WEIGHT

Note: If any of the weights exceed the listed rating, relocate the passengers and redistribute or remove a portion of the cargo until the weight is within the proper tolerance.

TOWING

If your motorhome 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).

HITCH TYPES

STANDARD

Class	Type	Max. G.T.W	Max T.W.
I	Weight Carrying	2000 lbs	200lbs
II	Weight Carrying	3500 lbs	300 lbs
III	Weight Carrying	5000 lbs	500 lbs
IV	Weight Distributing	10000 lbs	1000 lbs
V	Weight Distributing	14000 lbs	1700 lbs

(G.T.W.=Gross Trailer Wt. T.W.=Tongue Wt.)

Note: Carrying capacities may vary by hitch manufacturer. The above chart is to be used as a guide only. Please consult the hitch manufacturer for more information concerning your specific needs.

DRIVING

Get to know how your vehicle handles. Power steering and air brakes help make driving your motorhome as effortless as possible, but you must remember it is longer, higher, wider and heavier than a 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 RV 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 motorhome 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.

Note: 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.

INFANT AND CHILD RESTRAINTS

WARNING!

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.

CLEARANCE

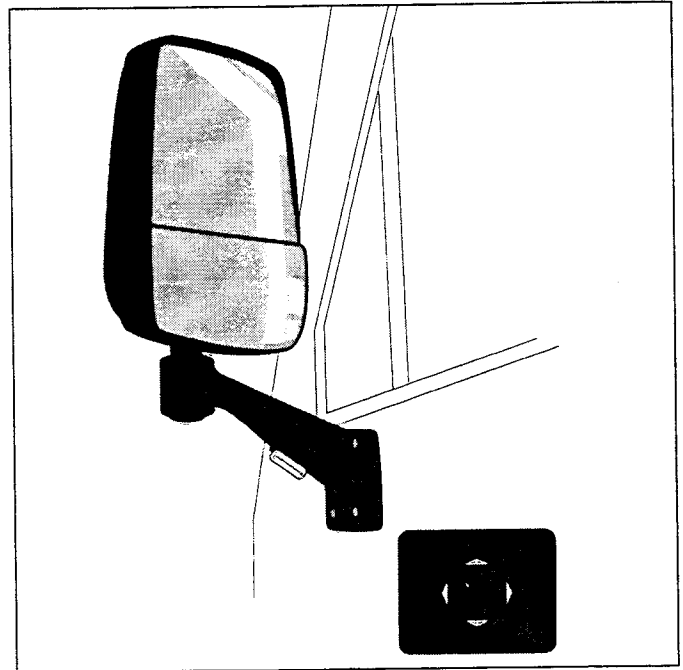
Be sure to read "Clearance Height" signs on overpasses, drive-through windows, etc. Watch out for overhanging tree branches, awnings or similar obstructions that can damage your vehicle's roof or roof-mounted equipment and accessories. Check with your dealer for clearance measurements of the unit.

MIRRORS

Make sure mirrors are positioned properly for best vision. Mirrors obviously are important for more than just backing. RV drivers should learn to check traffic conditions to the rear frequently, even when cruising wide-open highways, to avoid surprises.

REMOTE MIRRORS

This option allows you 4-way directional setting without leaving your captain's chair. This switch is located on your dash.



REMOTE MIRRORS

OPERATING YOUR VEHICLE

PULLING INTO TRAFFIC

Check for oncoming traffic in all directions. Signal before entering the flow of traffic. Always accelerate slowly and smoothly; the weight of your RV makes quick acceleration not only difficult but potentially unsafe.

PASSING

Avoid sudden maneuvers when passing a slower moving vehicle. Remember that additional time and distance are required to pass safely. Wait until the road is clear of oncoming traffic for at least 1/2 mile. Check the outside rearview mirrors and signal lane change. Have safe clearance, signal lane change and return to your original lane.

BRAKING

Your Coachman Rear Diesel is equipped with dual air brakes. Read thoroughly your Chassis Owners Manual for a complete description of the system and driving and maintenance tips.

Normal Stops—Push the brake pedal down. Control the pressure so the vehicle comes to a smooth, safe stop.

Emergency Stops—You should brake so you can steer and so your vehicle stays in a straight line. Use one of the following braking methods.

Controlled Braking—This method is also called "squeeze" braking. Put on the brakes as hard as you can

without locking the wheels. Do not turn the steering wheel while doing this. If you need to make large steering adjustments or if you feel the wheels sliding, release the brakes. Brake again as soon as the tires get traction.

Stab Braking—a) Press on the brake pedal as hard as you can. b) Release the brakes when the wheels lock up. c) As soon as the wheels start rolling, put on the brakes fully gain. It can take up to one second for the wheels to start rolling after you release the brakes. Make sure you stay off the brakes long enough to get the wheels rolling again. Otherwise the vehicle may not stay in a straight line.

STOPPING DISTANCES

With air brakes there is an added delay after the brake pedal is pushed. Whereas the brakes on your car work instantly, with air brakes it takes a little time (one-half second or more) for the air to flow through the lines to the brakes. At 55 mph on dry pavement the brake lag distance adds about 32 feet to the total stopping distance. So at 55 mph for an average driver under good traction and brake condition, the total stopping distance is over 300 feet. This is longer than a football field.

EMERGENCY STOPPING

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

PARKING ON A GRADE

Parking your motorhome 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 shifting the transmission to neutral. When preparing to move the vehicle, shift out of neutral before releasing the parking brake. On severe grades it may be necessary to have a passenger place wheel chocks behind the tires of your RV.

Note: Using the transmission to hold the vehicle on an upgrade may cause the engine or transmission to overheat.

DOWNGRADES

When going down long grades, use low gear and go slow enough that a fairly light, steady use of the brakes will keep you from speeding up. If you go slow enough, the brakes will be able to get rid of the heat so they will work as they should. Tests show that using the brakes hard and then letting up on them from time to time does not allow them time to cool as some people mistakenly believe.

UPGRADES

To avoid engine overheating when climbing a steep grade, reduce speed and shift the transmission to a lower gear.

OVERHEATING

If your motorhome's engine overheats, pull well off the road. Shift to neutral, engage parking brake 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 by following the instructions for Downgrades and Upgrades and turning off the dash air conditioner during those times.

SWAYING OR FISHTAILING

If this happens while you are towing a vehicle, accelerate slightly and then gradually slow down. If your unit still sways, pull off the road and check the following:

1. Towing Equipment
2. Distribution of cargo
3. Tire pressure
4. Motorhome front-end alignment and suspension

TURNING CORNERS

The distance from the rear axle to the back of the rear bumper is called rear overhang or angle of departure; and it is greater on a motorhome than it is on an automobile. On the highway this overhang poses no serious problem, but on narrow streets or in any situation requiring a tight turn, the arc of the swing of the rear end is dangerous to itself and to anything close by. The longer the overhang, the greater the swing of the arc. The swing of the arc is always opposite to that of the turn; so, for example, when you turn to the left, your right rear swings out. When making a right turn, pull into the intersection past the curb a little further than you would with an automobile to avoid hitting or driving over the curb with your tires. The sideview mirrors will aid you in this maneuver.

BACKING

Remember that your motorhome is higher, wider and longer than other vehicles you may own, so it is extremely important that you back the RV slowly. If your unit does not have the optional Rear Back-up Camera, visibility will be somewhat restricted and may require stationing someone beside the unit to guide the driver.

FREEING A STUCK VEHICLE

To pull your motorhome out of the snow, sand or mud, apply slight pressure to the accelerator pedal and shift the transmission rhythmically between forward and reverse gears.

*** CAUTION ***

Prolonged rocking, even at low speeds, may cause engine overheating, transmission and axle damage or failure, or tire damage.

TIRE CHANGE

Your Rear Diesel is equipped with heavy-duty truck tires weighing upwards of 150 lbs. Due to this fact, both Coachmen and the chassis manufacturer recommend that tire changes be done only by a professional tire service.

RECOVERY TOWING ON THE ROAD

If your motorhome 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 motorhome for towing:

1. Secure any loose 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 any person to ride in the towed vehicle.

EMERGENCY TOWING

* CAUTION *

Do not allow your motorhome to be towed without having the tow truck operator read this section and related sections of the Chassis Operators manual.

Coachmen Industries does not assume responsibility for damage incurred while towing this vehicle.

LEVELING JACKS

Your motorhome automotive instruments and controls are designed for convenience and safety. Since dashboards will vary depending on model and options chosen, read the chassis manufacturer's owner's manual for complete details on operation and maintenance of the systems. The illustrations shown on page 16 are for reference only. Your Coachmen dealer will be happy to acquaint you with the controls in your unit.

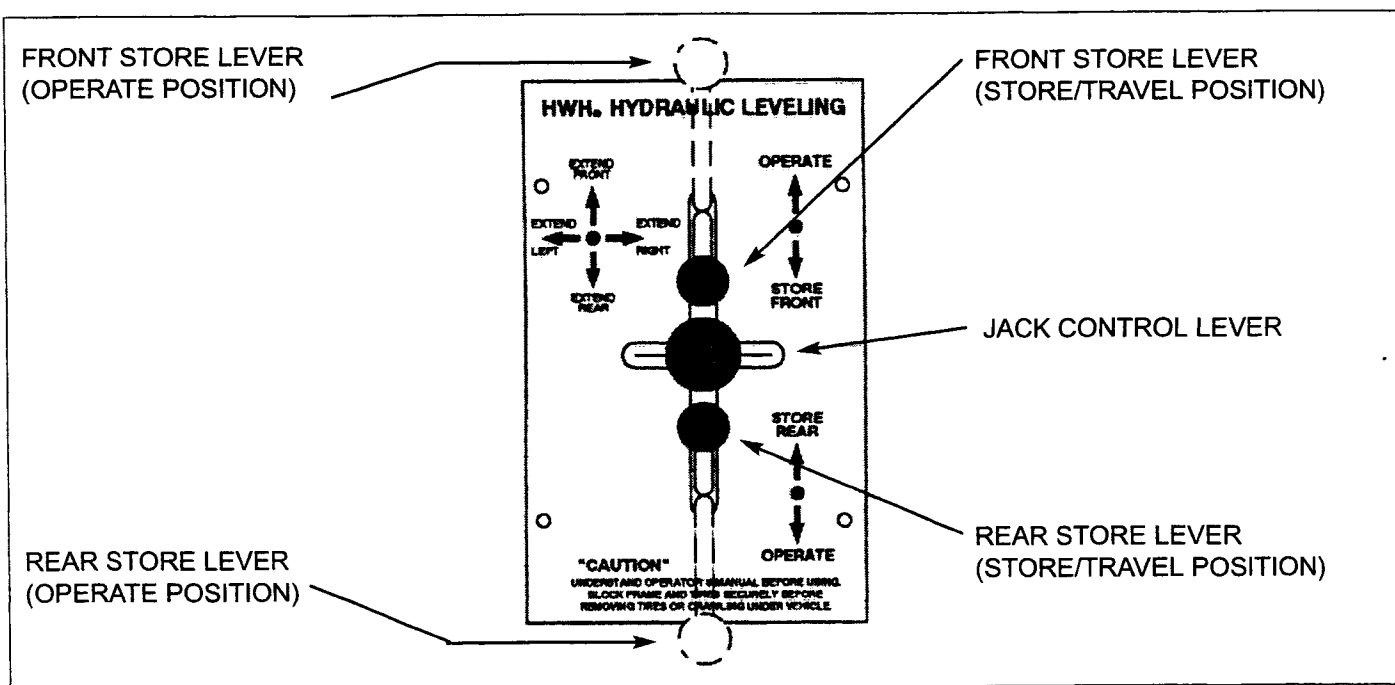
CONTROLS

"ON" BUTTON: This button provides control power to operate the electrical relay on the pump, the **LEVELING LIGHTS**, the **WARNING LIGHTS**, and the **POWER ON LIGHT**. It does not control power to the **"JACKS DOWN" LIGHT** or the **WARNING BUZZER**. The ignition switch controls power to these.

"OFF" BUTTON: This button turns off control power to the leveling system.

"STORE" LEVERS: These two levers are used to retract the jacks into the **STORE/TRAVEL POSITION** for travel. They must be in **"OPERATE"** POSITION for leveling.

JACK CONTROL LEVER: Jacks are extended in pairs by pushing the jack control lever to one of the **"RAISE"** positions. This movement of the lever activates the pump and directs hydraulic fluid to the jacks. When the lever is released it will return to the neutral (center) position, turning off the pump and stopping jacks in position.



RETRACT PROCEDURES

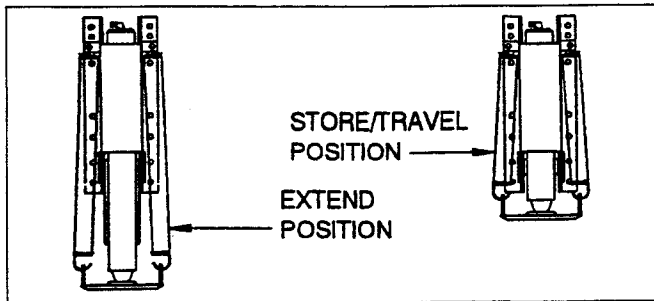


FIGURE 3

* CAUTION *

THE OPERATOR MUST BE SURE THAT THERE ARE NO OBJECTS UNDER THE VEHICLE AND THAT ALL PEOPLE ARE CLEAR OF THE VEHICLE.

1. Move the "STORE" levers one at a time into the STORE/TRAVEL position. Each lever retracts a pair of jacks. The vehicle can be moved as soon as the jacks are in the STORE/TRAVEL position. (See Figure 1)

* CAUTION *

DO NOT MOVE THE VEHICLE WHILE THE LEVELING JACKS ARE STILL IN CONTACT WITH THE GROUND OR IN THE EXTEND POSITION. THIS VEHICLE IS EQUIPPED WITH STRAIGHT ACTING JACKS. 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 THE POSITION OF THE LEVERS. IT IS THE OPERATOR'S RESPONSIBILITY TO CHECK THAT ALL JACKS ARE FULLY RETRACTED INTO THE STORE/TRAVEL POSITION.

NOTE: If jacks cannot be retracted by the above procedure see **MANUAL JACK RETRACTION** section.

MANUAL JACK RETRACTION

Note: Use the valve release "T" for retracting only if the "STORE" levers on the control panel will not retract the jacks for travel.

* CAUTION *

KEEP AWAY FROM THE WHEELS, DO NOT CRAWL UNDER THE VEHICLE, KEEP A SAFE DISTANCE IN FRONT AND REAR OF VEHICLE. THE VEHICLE MAY DROP AND/OR MOVE FORWARD OR BACKWARD WITHOUT WARNING AS THE VALVE RELEASE IS OPERATED.

1. Locate the 4 valve release "T" handles on the solenoid valves. The solenoid valves are located on the pump/valve assembly.
2. Allow clearance for vehicle to lower.
3. Retract the rear jacks by opening the two outer valves. Slowly turn the "T" handles counter clockwise. The handles may turn easily at first but as an internal spring is compressed, turning may become more difficult. The valves need only to be opened enough to retract the jack.
4. Retract the front jacks by opening the two center valves as described in step 3.
5. Check that all four jacks are now retracted.
6. Close the valves by turning the release handles clockwise.

Once the internal spring tension has been released, the handles will turn free for several turns. Once the "T" handles are snug, DO NOT tighten the handles past this point as internal damage may occur to the solenoid.

7. The system should now be repaired before using again.

AIR CYLINDER SUSPENSION

Your Rear Diesel may be equipped with front and rear air cylinder suspension. Air pressure in these cylinders is set at the factory for optimum ride and coach height. If necessary, the cylinder pressure can be adjusted by means of one valve on the rear suspension and two valves on the front. If you suspect a problem with your coach's suspension consult with your chassis manufacturer/dealer.

AIR BRAKE SYSTEM

Air brakes use compressed air to make the brakes work. Air brakes are a safe way of stopping large vehicles if the brakes are well maintained and used right. Normal system air pressure for your motorhome is 120 psi. Air brake systems are three braking systems combined: the service brake system; the parking brake system; and the emergency brake system. The **service brake** system applies and releases the brakes when you use the brake pedal during normal driving. The **parking brake** system applies and releases the parking brakes when you use the parking brake control. The **emergency brake** system uses parts of the service and parking brake systems to stop the vehicle in the event of a brake system failure.

PARKING BRAKE

All large vehicles such as your motorhome must be equipped with parking brakes and emergency brakes. They must be held on by mechanical force (because air pressure can eventually leak away). Spring brakes are used to meet these needs. When driving, powerful springs are held back by air pressure. If the air pressure

is removed, the springs put on the brakes. A parking brake control allows the driver to let air out of the spring brakes. This lets the spring put the brakes on. When the parking brake is released, air pressure again forces the springs back.

EMERGENCY BRAKE

A leak in the air brake system which causes all the air to be lost will allow the springs to put on the brakes without any action by the driver. When air pressure drops to 40 to 60 psi, the low air pressure warning buzzer alerts the driver that the emergency brakes are about to be applied. Do not wait for the brakes to come on automatically. When the buzzer sounds bring the vehicle to a safe stop right away while you can still control the brakes.

* CAUTION *

Never push the brake pedal down when the spring brakes are on. If you do, the brakes could be damaged by the combined forces of the springs and the air pressure. Many brake systems are designed so this will not happen. But not all systems are set up that way, and those that are may not always work. It is much better to develop the habit of not pushing the brake pedal down when the spring brakes are on.

AIR TANK DRAINS

Compressed air usually has some water and some compressor oil in it which is bad for the air brake system. For example, the water can freeze in cold weather and cause brake failure. The water and oil tend to collect in the bottom of the air tank. Therefore each air tank is equipped with a drain valve in the bottom. You must drain the tanks at the end of each day of driving.

Note: Read thoroughly your chassis owner's manual for information on maintaining your coach's air brake system. Your Coachmen dealer will be happy to assist you in answering your question.

CAMPING/LIVING AREA

CAMPSITE SELECTION

There are many campground guides that will assist you in making your selection. Many campgrounds accept reservations, and during peak seasons, it is wise to make a reservation. If possible, arrive early so you can inspect and choose your campsite during the daylight hours. During the winter months it is desirable to take advantage of natural windbreaks like trees, bushes or any similar type of windbreak. This will cut down the possibility of cold drafts that can affect the comfort level of your unit. Common courtesy will help make your stay more pleasant. Campsites often are close together and loud noises may disturb neighboring campers. Follow

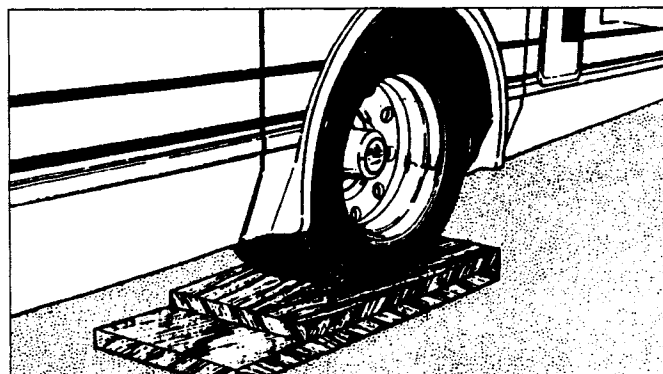
the posted rules of the campsite. Open fires might not be permitted. If you are permitted to build a campfire, clear the area of all flammable materials; never leave a campfire unattended, and always make certain the embers are completely extinguished before leaving the campfire or before going to sleep. Good RVers are proud of the fact that they always leave a campsite cleaner than they found it.

SET-UP

It is very important that your unit is level. This allows your refrigerator and drainage systems to operate properly (both function by gravity). To determine levelness, place a level on the bottom of the refrigerator's freezer compartment or on a normally level location inside the vehicle. You may wish to permanently attach levels (available at your dealer) on the front and/or back and sides of the RV. This will allow you to tell at a glance if you've stopped on a level site and will help speed the leveling process.

LEVELING

If the unit needs side-to-side leveling, make a step leveling ramp on the low side out of 1x6" or 2x6" boards of varying lengths. Pull the unit forward or back onto the leveling ramp until the tire(s) on the low side is level. Many experienced RVers carry level boards or blocks in their unit for this purpose.



STEP LEVELING RAMP

SLIDE OUT ROOM OPERATION

ROOM EXTEND PROCEDURE

Note: The parking brake must be set and the jacks must be extended before a room can be extended or retracted.

* CAUTION *

Operating the room with any room-locking devices locked or the manual retract winch attached can cause personal injury and vehicle damage. It is the operator's responsibility to ensure that all room-locking devices and the manual retract winch are disengaged before operating the room.

1. Unlock and remove all room-locking devices.

Note: If the manual retract winch is attached to the room it must be removed before extending the room. Make sure there is adequate clearance to fully extend the room.

2. Battery disconnects must be on.

3. Set emergency brake. The system will not operate without the brake set.

4. Turn vehicle ignition switch to the accessory position.

5. Turn hydraulic leveling jacks on, level unit.

6. Insert key and turn switch to the on position. The hydraulic leveling jack control panel must be in the on position.

7. Press and hold the room control switch in the "extend" position. When the room is fully extended, release the room control switch.

Important: Do not hold the room control switch in the "extend" position for more than ten seconds after the room is fully extended, or stops moving. If either side of the room stops moving, release the room control switch immediately.

Note: Releasing the room control switch will halt the operation of the room.

8. Turn room key switch to the off position.

9. Remove the room key from switch to prevent undesired operation of the room.

10. Turn hydraulic leveling jacks off.

11. Turn the ignition key off.

ROOM RETRACT PROCEDURE

Note: The parking brake must be set and the jacks must be extended before a room can be extended or retracted.

* CAUTION *

Keep people and obstructives clear of room when operating the slide out room.

1. Turn the vehicle ignition key to the accessory position.

2. Turn on the hydraulic leveling jacks

3. Insert room key and turn key switch to the "on" position.

4. Press and hold the room control switch in the retract position. When the room is fully retracted, release the room control switch.

Important: Do not hold the room control switch in the "retract" position for more than ten seconds after the room is fully extended, or stops moving.

Note: Releasing the room control switch will halt the operation of the room.

5. Turn the room key switch to the off position.

6. Remove the room control key to prevent undesired operation of the room.

Note: Remember, the hydraulic jacks must be retracted before moving the vehicle.

7. Turn hydraulic jacks off.

8. Turn ignition key off.

9. Engage all (if equipped) room locking devices

10. If the room will not retract, see the manual room retract procedure

MANUAL ROOM RETRACT PROCEDURE

(Use only when the room will not retract with the room control switch).

The room can be retracted manually if an electrical failure prevents the room from being retracted using the ROOM CONTROL SWITCH.

1. Locate the manual override access port cable hatch. It will be located directly across from the room and will be just aft of the entry door on the outside of the coach or in the first storage compartment.

2. Have someone press down and hold the override switch located next to the slideout operation switch inside the coach.

3. With the switch depressed, begin cranking the room in using the tool provided with the coach.

4. When the room is fully retracted, return the override switch to the normal operating position.

AIR QUALITY

State-of-the-art construction and energy conservation methods have been used in manufacturing your recreational vehicle. These improvements have substantially reduced air infiltration and air exchange, making them almost airtight. Therefore, regular airing of your unit is recommended, especially during periods of high temperature and high humidity, and after prolonged storage.

CONDENSATION

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, when there is excessive condensation—the troublesome kind that blocks all windows with fog or frost—damage to walls, woodwork and ceilings can occur. Remember that sweating windows are a signal indicating that moisture is trying to get out to mix with drier air.

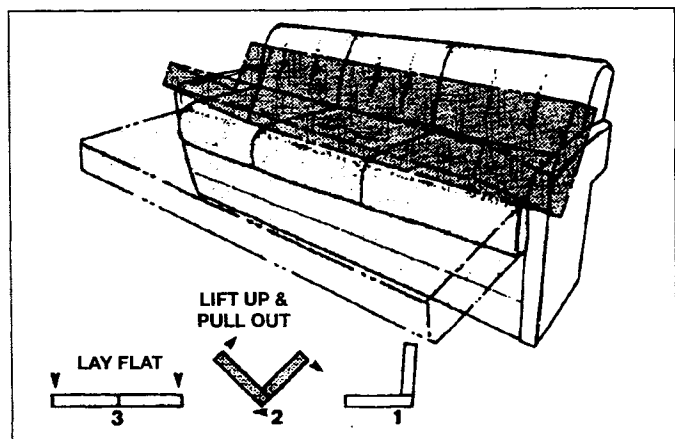
CONTROLLING CONDENSATION

When the unit is closed tightly, especially in cold weather, the small air volume in your RV can absorb only a certain amount of moisture. Bathing, dish washing, laundry appliances and unvented gas burners are among the causes of added moisture in the air—all pouring more water vapor into your RV. You can control the amount of moisture in the air by allowing the

moisture to escape to the outside. Use your vent hood and fan when you cook; keep bathroom door closed and the vent or window open while you bathe or shower (and for a short time after you have finished bathing or showering, to allow all the moisture to dissipate); and don't hang wet clothes in your unit.

SOFA

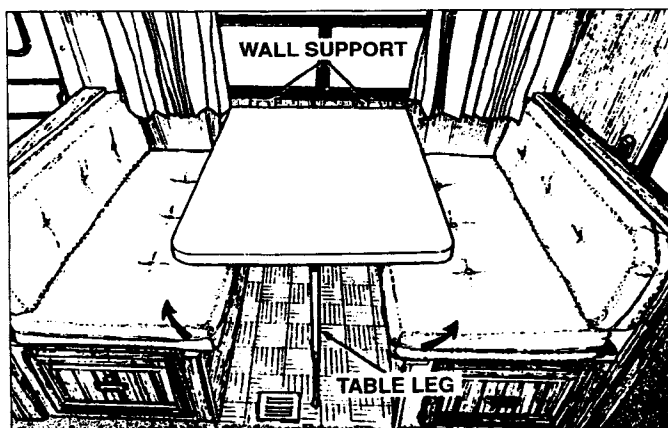
Your Rear Diesel is equipped with a jackknife sofa in the front living area to provide convenient and comfortable sitting and sleeping accommodations. Refer to the illustration or ask your dealer to demonstrate its operation.



JACKKNIFE SOFA

DINETTE BED

The dinette bed is equipped with a swing up table. To operate, move the leg to the "UP" position and pivot the table down to the dinette seat supports. Place the table on the seat supports and arrange the cushions on the top. To raise the table, pull the table toward you and up; then push it toward the wall. Insert tabs at back of table into the wall brackets. Pull the leg down and adjust to the proper height.



SWING UP TABLE

DRIVER AND PASSENGER CHAIRS

Some driver and passenger chairs slide, swivel and recline; others may slide and swivel or slide only. All the chairs operate manually except for the optional electric drivers chair. Have your dealer demonstrate the

operation of the chairs in your unit.

WINDSHIELD DRAPES

The windshield drapes are designed to provide privacy when parked and slide along a track over the sun visors. The drapes completely cover the windshield when closed. Secure with tiebacks on either side of the unit when open.

EMERGENCY EXIT WINDOW

The Emergency Exit Window is located in the bedroom at the rear of the coach. To operate the Emergency Exit Window, lift red handle on each side of the bottom of the window and push window out.

Important: Before traveling ensure that all occupants of the coach are familiar with the operation of the Emergency Exit.

SMOKE DETECTOR

The smoke detector in your coach is powered by one 9 volt carbon-zinc battery (alkaline batteries may also be used). Use only the following replacement batteries. Use of other batteries may cause a malfunction of the detector.

Eveready 216, 1222 or 522
Gold Peak 1604P or 1604S
Duracell 1604

The battery should last at least one year under normal operating conditions. When the battery reaches the end of its normal life, a low battery warning (intermittent beeping) will indicate the need for replacement.

Important: Test smoke detector operation after RV has been in storage, before each trip and at least once per week during use.

FIRE EXTINGUISHER

The fire extinguisher in your unit is located just inside the main entrance door. Please read the operating instructions that are printed on the fire extinguisher. If there is any doubt on the operation, you and your family should practice, then replace or recharge the extinguisher.

CARBON MONOXIDE DETECTOR

Your coach is equipped with a carbon monoxide detector designed for years of trouble free service. It is powered by the RV battery/converter. If the carbon monoxide level in the coach rises above a preset level for a specified number of minutes, the alarm will sound until the reset button is pushed. The detector is located on the wall near the entrance to the bedroom.

Important: Refer to the accompanying owners manual for complete operation, maintenance and testing procedures.

ELECTRICAL SYSTEM

Your motorhome contains two separate electrical systems: one 12-volt direct current (DC) and one 120-volt alternating current (AC), similar to the one in homes. 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 receptacle or the use of the auxiliary generator. The 12-volt electrical system is supplied by batteries, the power converter or the 12-volt source from the automotive chassis. To reduce the 12-volt load on your RV batteries, the 120-volt system should be used whenever a 120-volt hook-up is available. Although most components in your unit (water pump, range hood light and fan, interior lights) 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 for the following through the power center: 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 main electrical service panel of the power center and is distributed through circuit breakers.

GROUND FAULT INTERRUPTER/RECEPTACLE

The bath and exterior receptacles are protected by a ground fault interrupter (GFI). The GFI is a highly sensitive circuit breaker, built into the bath and kitchen receptacles, and connected to the outside receptacle. It protects against severe electrical shock, if a ground fault occurs in that circuit. The GFI senses the fault and breaks the bath and exterior receptacle circuits. If this should happen, unplug all appliances on that circuit and reset the breaker in the bath or kitchen 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 your Coachmen dealer.

SHORELINE CONNECTION

The Shoreline is a heavy-duty, 50 amp cable with a 4-prong plug which supplies 120-volt A/C to the power center. It can be pulled from its storage compartment through its access port and connected to a matching receptacle.

* CAUTION *

If there is no 50 amp receptacle available, and you must use an adapter, the usable amperage will equal the rating of the adapter and the receptacle being used.

On some models, the 50 amp service is optional. If this option was not ordered on your RV, then it will be equipped with a 30 amp service and a 3-prong plug.

* CAUTION *

If there is no 30 amp receptacle available, and you must use an adapter, the usable amperage will equal the rating of the adapter and the receptacle being used.

The 120-volt system is protected by the circuit breakers. If a circuit breaker opens, unplug the appliance(s) on that circuit, allow a short period for the breaker to cool, and 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.

POWER DISTRIBUTION CHART

CHASSIS BATTERY	POWER CENTER AND/OR 12-VOLT BATTERY	120-VOLT ELECTRICAL
Battery disconnect	Battery disconnect	Power center
Starter (engine)	Generator starter motor	All receptacles
Head lights	All interior lights	Refrigerator
Taillights	Porch light	Air conditioner(s)
Stop lights	Trunk lights	Microwave
Turn signals	Power steps	Central vacuum cleaner
Parking lights	Leveling system	Food processor
Backup lights	Water pump	Washer/dryer
Clearance lights	Monitor panel	VCR
License plate lamp	Range vent	VCP
Spot light	Power roof vent	Television (front)
Dash lights	Television (rear)	
Map lights	Television antenna	
Horn	Water heater (electronic ignition)	
Windshield wipers	Furnace (electronic ignition)	
Backup monitor	Grab handle (lighted)	
Security system	Refrigerator controls	
Heater fans (front & back)		
Defrost fans		
Heated mirrors		
Radio		
Power seats		
Spot light		

12 VOLT SYSTEM

The 12 volt system, which includes the automotive battery and RV batteries, plus the 12 volt converter, supplies power to the exterior lights, the range hood fan and light, the furnace blower, water pump, interior 12 volt receptacles, porch light and monitoring panel. The 12 volt receptacles can only be used for appliances specifically designed for that type of energy. The 12 volt energy is supplied by the automotive battery, the RV battery or the power converter. The automotive alternator supplies 12 volt power to the vehicle's lights and components and the RV's 12 volt system, including running lights, brakes and appliances, when the engine is running. The automotive alternator also will charge the RV batteries. The RV batteries supply power to the furnace blower, monitoring panel, water pump, interior 12 volt receptacles, optional power vents(s), range hood fan and light and interior lights. The RV batteries are charged by the power converter whenever you are using a Shoreline connection, generator, external 120 volt power source. To check the battery using the monitor panel, disconnect the Shoreline and turn on at least three interior lights. (A discharged battery will show full charge unless some electricity is being drawn.) With extremely heavy usage, battery water level should be checked daily.

The power converter section of the power center transforms 120-volt AC into 12-volt DC to supply power to all of the 12-volt systems. Each 12-volt circuit is protected by a fuse in the power center. Turn the twist lock to open the door and check the fuses. A listing of the circuits is on the inside of the door. Some fuses protect circuits with more than one function; others may be for specific appliances. If a fuse is blown, turn off or unplug all appliances on that circuit. Replace the blown fuse with one of the same ampere rating. If the fuse continues to blow, notify your dealer. See the power center manufacturer's manual for specifications, operation and testing procedures.

IN-LINE FUSES

In-Line fuses or over-current protective devices are installed in your RV storage battery hookup whenever the battery supplies 12-volt current to the 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.

AUXILIARY GENERATOR

The auxiliary generator is a gasoline-, diesel- or LP gas-operated unit that provides 120-volt electricity. Its fuel supply is from the coach fuel tank or LP gas supply tank. The generator can be operated when your vehicle is

stopped or traveling. A remote switch is located inside the coach on the monitor panel. There is also a start/stop switch mounted on the generator. An automatic transfer switch incorporated in the power center prevents the simultaneous use of the generator and the shoreline connection. When the generator is started, the transfer automatically switches from shoreline to generator power. When the generator is shut down, the transfer automatically switches to shoreline power. Every time you start the engine there is a 30 to 45 second delay before the coach electrical load is connected. This allows the generator to reach normal operating speed with no load. A remote combination generator preheat, start and stop switch is located on the monitor panel inside the coach (diesel only). When the generator is off, the first actuation of the switch starts a 30 second generator pre-heat cycle. The small LED indicator below the switch will blink on and off at a 2 second rate for 16 cycles to indicate that the pre-heat is on. Once this pre-heat cycle is started, the switch acts as a starter switch. At the end of the 30 second period, the LED will blink at a rapid rate for an additional 30 seconds to indicate that the pre-heat cycle is complete. Pressing the switch at any time during this time will activate the starter. At the end of the second 30 second cycle, the system resets and is prepared to restart. Once the generator is running, the LED will stay on. Approximately 10 seconds later, the switch becomes a "Touch and Let Go" to stop button.

WARNING!

Exhaust gas presents the hazard of severe personal injury or death. Do not open roof vents, windows or doors when generator is running as these could draw fumes into your coach. Do not operate the generator where an object such as a tree, bush or building can deflect exhaust to the inside of your unit.

FRESH WATER SYSTEM

Fresh water is supplied either by the vehicle's fresh water tank, using the 12-volt demand pump, or by an exterior pressurized source (city water). The water heater is an LP gas appliance that heats water to a preset temperature. To fill the water heater, simply turn on a hot water faucet. When water flows steadily, turn the faucet off.

*** CAUTION ***

Do not ignite the water heater until water heater tank is full. If it is not full, it will cause permanent damage to the water heater tank.

Although a common garden hose can be used to fill the water tank and connect to city water, longtime RV'ers recommend a hose specifically manufactured for this, available at your RV dealer. Keep a close watch while filling, so as to not overfill and cause damage to tank and surrounding structure. To fill the fresh water tank, connect a hose to the city water fill. Place the operation valves in the tank fill position, then turn water on. When tank shows full on the monitor panel, or water flows out of overflow/vent hoses, turn water off. Place operation valves in normal position and remove hose. Turn water pump on, open hot water faucet until water flows. Turn hot water faucet off and repeat with cold water faucet. The water pump should shut off and not come on until a faucet is opened. To use city water, connect a hose to the city water fill. Place the operation valves in the normal position. Turn water on, then open a hot water faucet until water flows. Turn faucet off and repeat with cold water. Water pump should be shut off for city water use.

Note: in areas where city water pressure exceeds 60 PSI, you should use a pressure regulator. Excessive water pressure may damage lines, connections, or other system components.

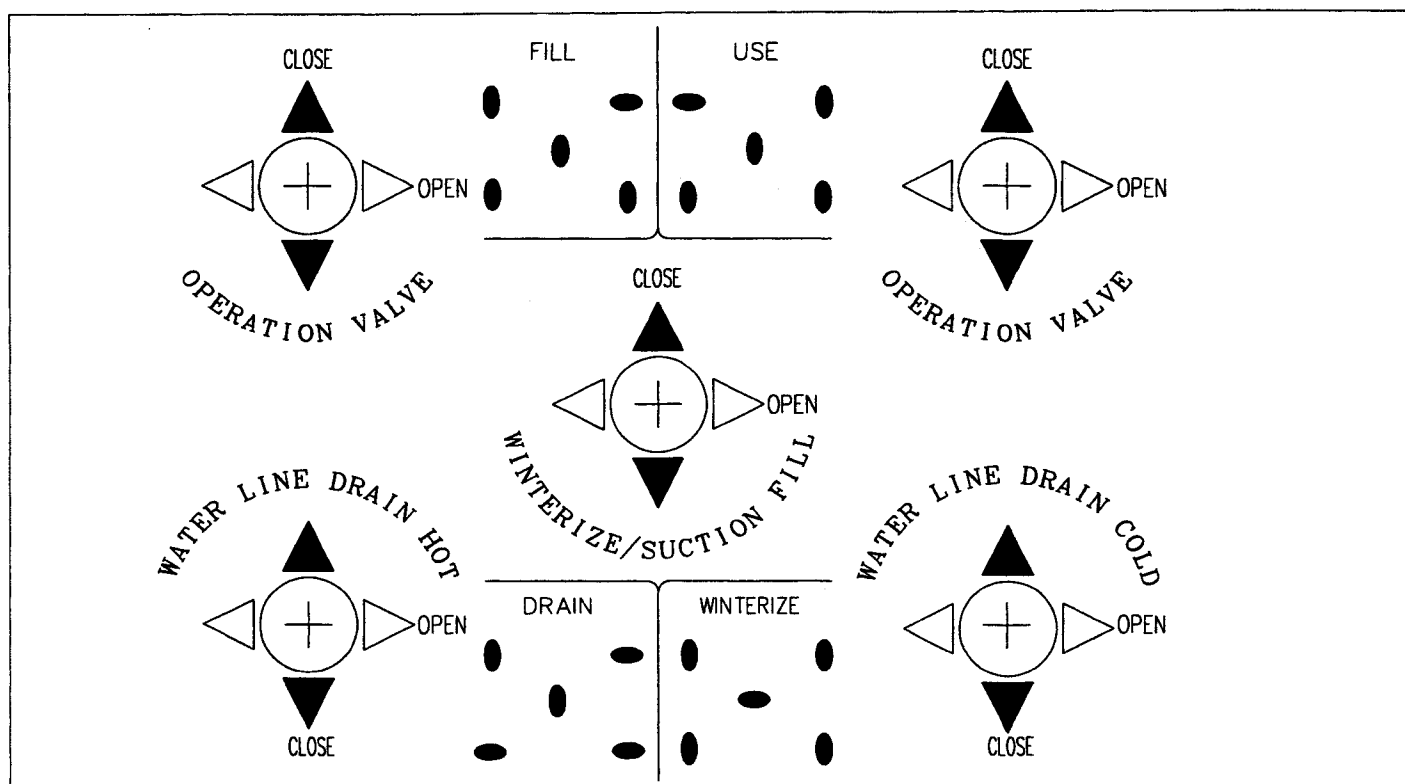
To add water to the tank where a city water hook up is not available, use the following procedure; After filling a water container, place the short piece of hose provided into the water (on some units, a plug may have to be removed and the hose installed in place of the plug). Place the operation valves in the tank fill position, and open valve in line to hose, or open suction fill valve. Turn water pump on. The pump will draw water from the

container into the water tank. You may have to refill the container several times to completely fill the tank. After tank is full, turn operation valves back to normal position and close suction fill valve (or valve in line to short hose). To drain water system/tank, place the operation valves in the tank drain position, open the water line drain valves and open all hot and cold faucets.

SANITIZING THE WATER TANK

The water tank on your Rear Diesel is located beneath the floor of the unit just forward of the rear axle. The water tank should be sanitized before you use it for the first time; after a period of nonuse; and whenever 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. Follow procedure for adding water to water tank where no city water hook up is available.
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



WATER CONTROL SYSTEM

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.

WATER PUMP

The water pump is a 12-volt DC appliance that is activated by a switch on the monitor panel. A second switch may be located at the terminations. The switch can be left on while camping. When you want water, simply open a faucet. The pump which supplies water from the fresh water tank will run only as long as is needed. If the pump fails to start when the switch is on, check the fuse located in the converter. If the pump continues to operate whether the faucets are opened or closed, check the water tank. It might be empty, or there might be a leak in the system. If the city water hose is connected, the pump is not required. Refer to the water pump manufacturer's material for additional troubleshooting and winterizing information.

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.

DRAINAGE/SEWER

Your Rear Diesel is equipped with a drainage sewer system that functions much the same as the one in your home. This system includes drain lines from the kitchen sinks, lavatory, tub/shower and marine type toilet to a gray-water holding tank and/or a sewage holding tank. The drainage system also includes vents that carry odors (caused by drain water and waste) out through the roof. The drainage system vents also equalize the air pressure, which is necessary to maintain a water barrier against odors in the P-traps and to ensure smooth flow and escape for your drainage system.

TOILET

Your drainage/sewer system has two holding tanks: gray water and waste (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. 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 Coachmen 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, make sure your vehicle is level; emptying the holding tanks depends on gravity.

EMPTYING THE HOLDING TANKS

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

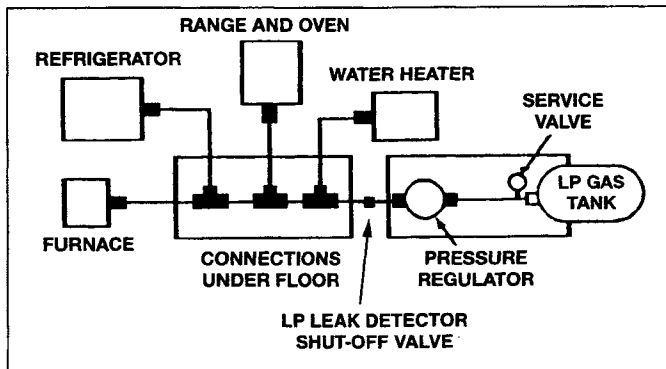
To drain a holding tank, pull out the dump valve slide handle. On some units it is necessary to unfasten a locking device before the slide valve handle can be pulled out. After the tank is drained, close the valve (if applicable, lock in place). After emptying the waste holding tank, flush or pour about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



LP GAS SYSTEM (TYPICAL)

* CAUTION *

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!

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.

* CAUTION *

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.

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

CLIMATE DIFFERENCES

An appliance will not function if the LP gas does not vaporize. Propane continues to vaporize down to -44 degrees F. Liquid gas does not vaporize as rapidly in cold weather, so you may place too great a demand on your tanks' capacities 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

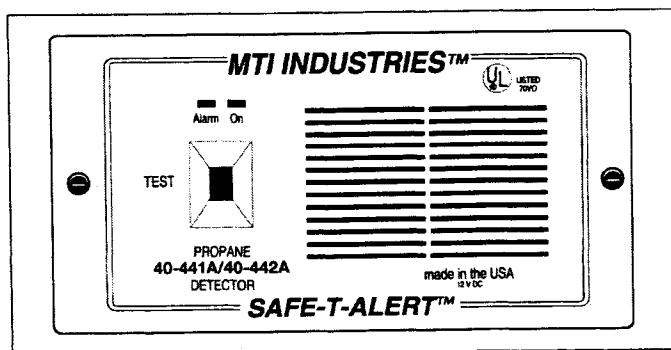
LP gas valve. The air may extinguish your match or igniter the first time or two before you get ignition. Remember too, that when you close the tank's service valve some of the gas will remain in the lines. To completely bleed the lines of gas, close the tank's service valve and light a range burner 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. Make sure that the regulator vent faces down and that the cover is kept in place. This will minimize vent blockage that could result in excessive gas pressure and could cause a fire or explosion.

LP LEAK DETECTOR

Your LP Gas Leak Detector is located at the base of the kitchen cabinets just inside the entrance door. It is designed to provide years of trouble free service. It is recommended that your LP Leak Detector be in the ON position whenever you are using your RV. The system should be turned off when the vehicle is in storage or will be unused for several days. One of the most important features of this leak detector is an EARLY WARNING gas alarm ability and a malfunction indicator. See your manufacturer's instructions for further information.



LP GAS LEAK DETECTOR (TYPICAL)

LP GAS REGULATOR FREEZE-UPS

LP gas regulator freeze-up is a problem RV owners can prevent if they are aware of its causes. Although every precaution is taken by fuel producers, tank manufacturers, and LP gas dealers to keep moisture out of the fuel, this problem at times does exist and causes regular freeze-ups. Suggestions that you may want to follow to help prevent this moisture are:

1. Always keep the main tank valve closed during periods that gas is not in use, especially if the tank is empty.

2. Contact your LP gas dealer about the addition of anhydrous methanol to your tank. Your dealer may do this for a minimal charge, and it will help to prevent freeze-up.

FILLING LP GAS TANKS

Before having an LP gas tank filled, be certain all burners and pilot lights are off. Drive your motorhome to an authorized LP supplier for filling (never remove the tank). He will connect the fill nozzle to the LP gas tank fill valve. When the tank is being filled, the Service valve must be CLOSED and the 20% liquid level gauge must be OPEN. The 80% stop fill valve may close the valve before liquid appears at the 20% liquid level gauge, but if liquid does appear, stop filling immediately. The tank is filled to its liquid capacity. When liquid LP gas is no longer visible, close the liquid level gauge. Do not use a wrench to tighten the Service valve or the 20% gauge; they are designed to be closed leak-tight by hand. If you cannot hand tighten properly, the valve probably needs repair or replacement.



A warning label has been located near the LP gas container. This label reads:

DO NOT FILL CONTAINER(S) TO MORE THAN 80% OF CAPACITY. Over-filling the LP gas container can result in an uncontrolled gas flow which can cause fire or explosion. A properly filled container will contain approximately 80% of its volume as liquid LP gas. If the tank is over-filled, have the LP gas dealer bleed out the excess. **DO NOT** smoke, strike a match, or ignite a lighter when the LP gas container is being filled. A spark or flame could ignite fumes. Be certain all burner and pilot flames are out and Service Valve is closed when filling your vehicle's LP gas or fuel tanks.

Because there may be some leakage of LP gas when the tank is being filled, we recommend that you drive at least a mile away from the LP gas dealer before you light any pilots or appliances if the scent of LP gas is present. Open the windows and doors and wait 30 minutes. If the odor is still present, follow the instructions in the LP LINE CHECK section.

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

REAR VISION CAMERA

The rear vision camera is mounted on the upper rear of the coach and connected to a monitor on the right side of the drivers instrument panel. Normal operation of the monitor is in the standby position which automatically turns the camera on when the transmission is shifted into reverse. The camera position should be selected to camera #1 and the day/night button selected as appropriate.

Important: Read thoroughly your Rear Vision Camera owners manual for complete instructions regarding proper operation.

ELECTRIC STEP

The electric step system includes a power switch located to the left just inside the entrance door. With the power switch on, opening and closing the entrance door will extend and retract the electric step respectively. In the extend position the under-step light will be on. With the steps extended and the power switch in the "OFF" position, one can open and close the door to the coach repeatedly without the steps cycling up and down each time. In the event that one forgets to turn the power switch back on before moving the coach with steps extended, the ignition safety system will automatically retract the steps when the vehicle ignition is turned on. A last out feature will extend the steps the first time the entrance door is opened after the vehicle ignition is turned off.

MAINTENANCE AND LUBRICATION

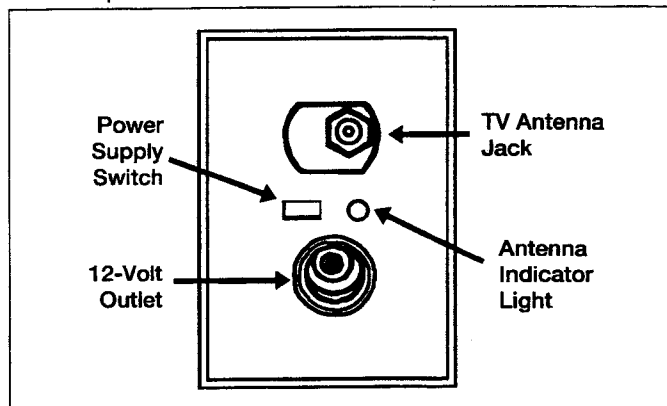
Clean all mud, salt, and road grime from the step before lubricating. Lubricate all moving parts (bearings, pivot points, slides, clevis pin, and drive linkage ball) every 30

days with a good quality moisture and heat resistant penetrating grease.

Important: Read thoroughly your electric step owners manual for complete operation, maintenance and lubrication instructions.

TV ANTENNA/CABLE SYSTEM

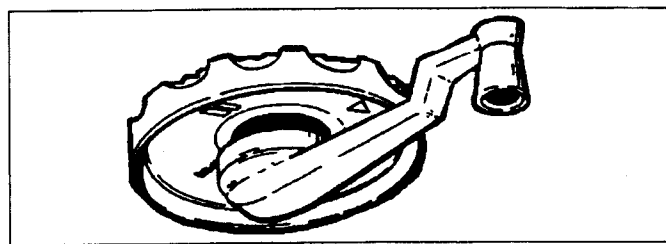
This system allows you the flexibility to use the amplified TV antenna hook up, or cable, if your location has cable hook ups. To use the TV antenna, simply turn on the power supply switch at the wall plate. To use the cable, turn the power switch off at the wall plate.



TV WALL PLATE

TV ANTENNA CONTROL

Turn the antenna control handle in the "UP" direction until some resistance is felt. Pull down the rotating plate to disengage it from the ceiling plate and turn it until you find the best sound and signal. Always turn on amplifier power switch. Be sure to lower the antenna before moving your motorhome. Turn the rotating portion so that its pointer lines up with the ceiling plate pointer. Turn control handle in "DOWN" direction until some resistance is felt. Turn off the amplifier power switch.



TV ANTENNA CONTROL

Note: Even though your 12-volt radio and/or TV antenna will operate on the 12-volt current that is supplied through the power converter, spikes and surges in the current are possible and will result in poor reception. It is recommended, therefore, that these items be used only in conjunction with a properly installed RV battery.

TELEVISION

Your color TV features remote control tuning, sleep timer with alarm and auto-programming of channels.

The remote control unit is stored in the glove box on the passenger side of the coach. For specific operating instructions and descriptions of features, please refer to the enclosed owners manual.

VIDEO CASSETTE PLAYER

If your unit is equipped with a VCP, please refer to the manufacturer's owner's manual for care and operating instructions.

AM/FM STEREO CASSETTE PLAYER

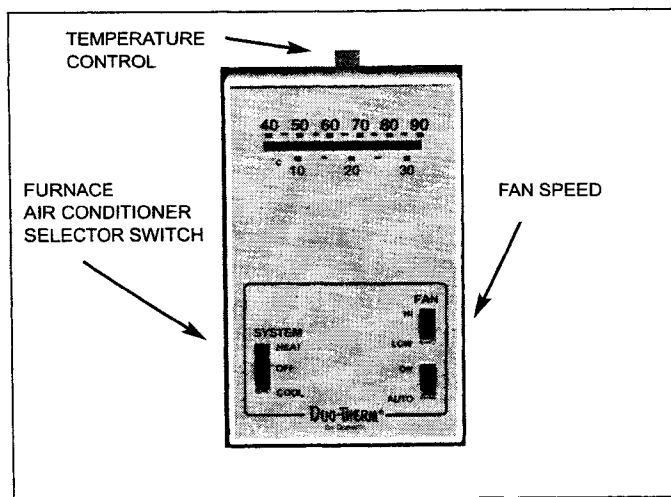
Your AM/FM stereo cassette player is located on the right side of the drivers instrument panel. It features a stereo cassette player with AM/FM radio with programmable station memory function. For specific operating and cleaning instructions, please refer to your owners manual. Your unit may also be equipped with an optional compact disc player. Operating instructions are included in the owners packet.

COFFEEMAKER

Your Black and Decker Coffeemaker features under-the-cabinet mounting and one-step brew control for your convenience. Please refer to the enclosed owners manual for detailed use and care instructions.

FURNACE

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



THERMOSTAT

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 from one to several hours 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 and the furnace gas control valve OFF and contact your authorized Coachmen dealer or service center. DO NOT attempt to repair or adjust the furnace yourself. For complete shutdown, turn gas valve to OFF and 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.

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.

REFRIGERATOR

Your refrigerator is two-way (LP gas and 120-volt electricity). It 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.

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.

The refrigerator controls will work down to 9.6-volt DC.

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

It comes with operational instructions and most have instructions posted near the controls. Ask your Coachmen dealer to demonstrate the operation of the refrigerator in your RV. 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.

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 operation. Use door lock during travel.

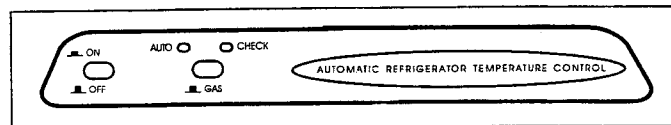
* CAUTION *

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

START UP INSTRUCTIONS

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



REFRIGERATOR CONTROL PANEL

AUTO MODE

- Press the AUTO/MANUAL mode selector button to the DOWN position. The AUTO mode indicator lamp 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.
- If the CHECK indicator lamp illuminates, the control has failed to ignite the burner on GAS. To reset when the CHECK indicator lamp is illuminated, press the main power ON/OFF button to the OFF then ON position.
- 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 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.

- 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 to the UP position. The AUTO mode indicator lamp 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 SHUT OFF THE REFRIGERATOR

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.

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 close the light switch or remove the lamp bulb.

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.

OPTIONAL REFRIGERATOR w/ICE MAKER

Your RV may have an optional refrigerator with a built-in automatic ice maker. Please refer to manufacturer's owner's manual for care and operating instructions.

BATTERY DISCONNECT

The battery disconnect provides a simple and safe means of disconnecting the coach and chassis batteries of your unit. With a touch of a switch on the panel located near the entrance door, the batteries will be completely disconnected. Advantages of using the battery disconnect switch include:

Preventing unwanted discharging of batteries during extended periods of storage.
Preventing shorts or fire hazard while working on the 12-volt electrical system.

To operate the Battery Disconnect, press the USE/STORE switch to the "USE" position for either the coach or chassis. The indicator light for that battery will glow. To prevent the discharge of your batteries, press the USE/STORE switch to the "STORE" position. Do this for both batteries.

Note: Coach battery must be in the "USE" position in order for your coach battery to charge when plugged into the shoreline.

WATER HEATER

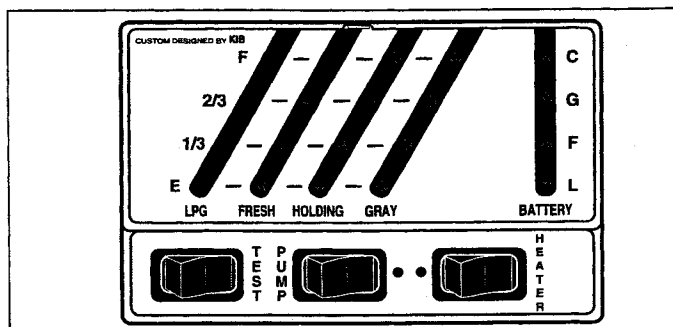
Your water heater is an LP gas appliance capable of heating gallons of water to a preset temperature. When the system is connected to city water, fill the water heater by opening a hot water faucet. When filling the fresh water tank, turn the water pump ON and open a hot water faucet. In either case,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

WATER HEATER BY-PASS

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, 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.



REMOTE WATER HEATER SWITCH

BURNER ADJUSTMENT

Refer to Water Heater 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 (listed following CAUTION).

* 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.

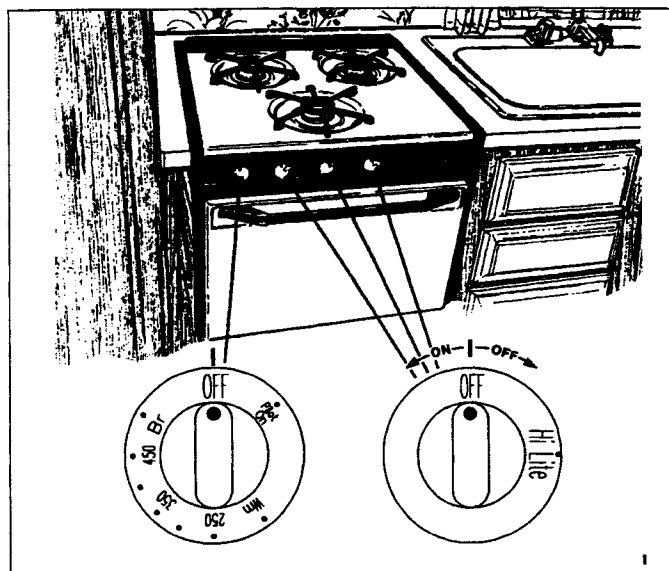
CARE OF WATER HEATER

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.

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.



RANGE AND OVEN CONTROLS

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 pilot(s) to be lit. Once lighted, the Pilot(s) will continue to burn.

LIGHTING THE RANGE

Be certain that the LP gas Service valve is OPEN. Light a match and hold it close to the range burner making sure you are lighting the valve you turned on. 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.

REMOTE FAN SWITCH

Certain models will come with a range hood equipped with a "remote fan switch." This switch will automatically activate the fan while simultaneously opening the vent on the exterior of the unit.

Note: To operate this switch, locate the lever on the front of the range hood, pinch fan switch lock and pull lever. Push in firmly to lock vent door before moving vehicle.

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

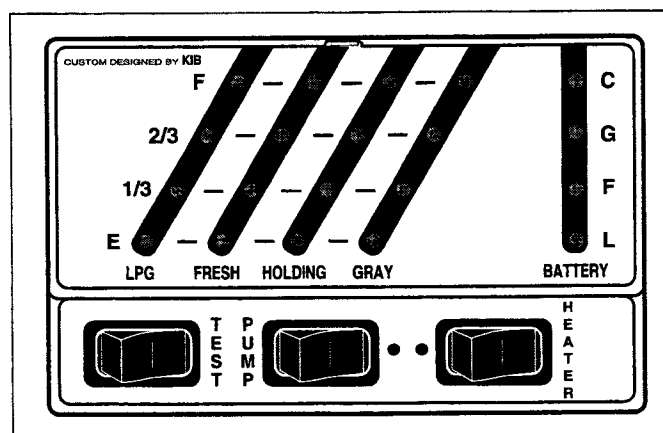
For metal surfaces, use the same procedure as for the range top. For the power hood, clean the plastic light cover by removing and washing it. If the light burns out, replace with a bulb of the same size. To clean the power hood filter, plush slot located in center front of screen and pull down. If not 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. Read carefully the oven manufacturer's owner's manual for specific instructions for the model which may be installed in your unit.

MONITOR PANEL

Your motorhome is equipped with a monitor panel that 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 in tank and includes switches for the water pump, water heater and generator. Your dealer will be happy to explain its operation.



MONITOR PANEL

BATTERY CONDITION LEVELS

The battery condition will fall into one of the following levels:

- C** Convertor, more than 14.5 volts (unfiltered circuit or dead cells in battery).
- G** Good, 12.6–14.49 volts.
- F** Fair, 12.0–12.5 volts.
- L** Low, 5–11.9 volts.

VEHICLE MAINTENANCE

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.

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.

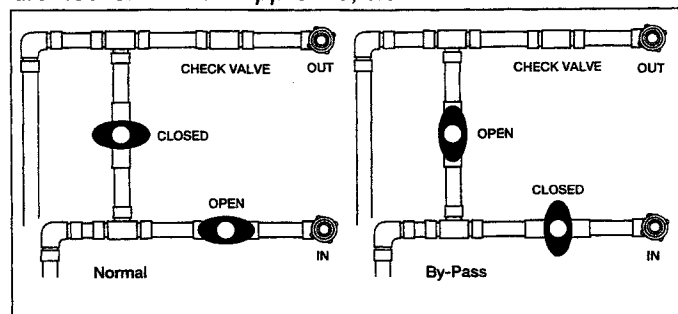
FUEL SYSTEM

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 then be operated at idle speed to circulate the additive throughout the fuel system.

WINTERIZATION

Make special preparations for storing your unit in cold winter climates. All systems and components should be inspected and, if necessary, repaired prior to storage. Winterize the motorhome before removing the RV battery.

Note: If you will be using your motorhome during cold weather, be certain to keep the fresh water system drained or use an approved, non-toxic RV antifreeze to



WATER HEATER BY-PASS (TYPICAL)

prevent freeze-ups. Have an LP gas supplier add methanol to your LP gas containers. Consult your authorized Coachmen dealer for more information.

REFRIGERATOR

Remove all food from the refrigerator, defrost and wash and dry the inside. Prop the door open so air can circulate.

CABINETS

Check the staple foods in your cupboards and remove any that could freeze and be damaged. Leave cabinet and closet doors open a little to prevent a musty odor or mildew.

HOLDING TANKS

The dump valve shafts should be inspected and lubricated. Be certain the dump valves are closed.

WATER SYSTEM

To winterize the fresh water system, place the operation valves in the winterize position. Place the short section of hose in a container of RV anti-freeze. Open winterizer/suction fill valve (or in-line valve to short hose). Turn on pump. The water pump will drain anti-freeze from container into system. This will not put any anti-freeze into the water tank. Turn faucets until anti-freeze appears.

* CAUTION *

Do not use automotive antifreeze in the water or sewage system. It is poisonous and also corrosive to sewage system components.

RV BATTERY

Recharge and add water, if necessary. Disconnect the battery cables and store battery in a cool, dry place. Check regularly and recharge as needed. Do not store battery in an area where possible exposure to extreme heat or sparks can occur. Be sure room is properly ventilated to dispel hydrogen fumes given off by battery.

WINDOWS

Cover with newspaper or cardboard to protect fabrics from fading.

EXTERIOR VENTS

Cover range hood, refrigerator and furnace vents with plastic. Inspect all roof vents and replace, if necessary.

* CAUTION *

Never use appliances with vent covers in place.

EXTERIOR

Clean and wax, lubricate locks and hinges. Check under the motorhome for any openings which would allow varmints to enter; seal if necessary. Lock all doors securely. Inspect throughout the winter months and remove any snow accumulation from the roof with a long-handled broom or similar tool.

INTERIOR/EXTERIOR CARE

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 appliances and accessories. Failure to

maintain the vehicle or its components may also constitute a breach of your warranty obligations. Just as an open window or an unrepaired leak in your home may lead to costly damage, the failure to repair leaks in your vehicle or to reseal your seams may result in serious damage to your motorhome. Read the various appliance and component manufacturer's manuals for specific maintenance information. Unless otherwise noted, maintenance functions should be performed at least annually. All maintenance schedules listed are the minimum requirement; heavy use, unusual temperatures or humidity, or other environmental conditions may require more frequent maintenance. At the start of each season, or after a period of storage, thoroughly inspect and test all systems and components to be certain they are functioning properly before you use your motorhome.

Airing of the unit is essential before you occupy it. See details under the **AIR QUALITY** and **CONDENSATION** sections of this manual.

Automotive and Chassis System of your vehicle should be serviced and maintained as outlined in the chassis owner's manual.

Awning supports and bright metal parts should be cleaned and coated with silicone annually.

Axle and Suspension should be inspected frequently.

Batteries should be inspected frequently and refilled or recharged as necessary; battery cables and terminals should be checked and cleaned every 90 days.

Body should be washed to remove dirt, dust, road tar, bird and tree droppings, insects, and other foreign material from exterior surfaces. Use a mild soap in lukewarm water. Apply an automotive-type wax at least once a year.

Body, Underbelly should be inspected for damage, rust or corrosion every 90 days and repaired as necessary. You may wish to apply undercoating.

Bumper and Frames that are painted, or any exposed painted surface, should be inspected for damage and rust. Rust should be removed and bumper and frame painted with rust preventive paint annually.

Counter and Table Tops should be cleaned periodically with a mild detergent.

Electrical System should be inspected and tested prior to each trip. Check the shoreline for damage. Test the 120-volt system for proper polarity and voltage. You may want to purchase a ground monitor and a line voltage tester to perform these checks.

Fabrics need regular and continuing care. To keep them at their best, vacuum and brush away loose dirt before it becomes embedded and more difficult to remove. Clean spills and stains while fresh. **VELVET** fabrics should be cleaned with extreme care. Spills on velvet generally will bead-up. Blot them up quickly and gently so as not to force the stain deep into the fabric. If a stain remains, spot-clean using one of the methods described below. Wipe the stain in the direction of the pile to prevent distortion. When the fabric is dry, gently brush with a soft

brush. Many velvet fabrics cannot be cleaned with water-based cleaning agents.

Draperies, Curtains, Bedspreads should be dry-cleaned only.

Cushions, Chairs, Sofas may be labeled with the voluntary industry cleanability code. Because dyes or backings on some upholstery fabrics will be affected by water or solvents, the cleanability code will indicate the cleaning method that is safe for your fabric. If the furniture is not coded, test the fabric for discoloration on an inconspicuous part of the furniture before spot-cleaning. The code is symbolized by the following letters: **W** - Use only water-based cleaning agents or foam. Mix two tablespoons ammonia or detergent, such as Ajax liquid, with a quart of water. Wipe the stain gently with a clean 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 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.

Parquet Wood Flooring—This optional flooring is located in the Kitchen area. Never damp mop with water. It will permanently damage the floor. A slightly damp cloth is acceptable to use for spills in small areas. Please refer to owners' packet for maintenance and troubleshooting.

Hinges should be inspected and lubricated with light household oil periodically.

Locks and Latches should be inspected and lightly lubricated with graphite periodically.

LP Gas system should be inspected and adjusted as outlined in LP Gas section of this manual. Be certain mounting supports for tanks are secure. Before using, be sure all LP gas orifices and vents are clean.

LP Gas Line Check should be performed frequently. Always check the gas line connection after each refill and inspect the connections regularly, at least every 30 days or 5000 miles of travel. To check, turn off all burners and pilot lights. Open all doors and windows. Open the LP gas tank Service valve and use an approved LP leak detector solution to test all line connections. Bubbles indicate a leak. Do not use products that contain ammonia or chlorine. Tighten the connection with two open end wrenches until bubbles stop. If leak persists, contact your Coachmen dealer.

Lug Nuts should be checked every 50 miles for the first 200 miles or whenever a wheel has been reinstalled. If lug nuts continue to loosen, they should be replaced. Be certain to use the proper torque (450 to 500 ft./lbs.). For more information check Chassis owner's manual.

Rubber Roof

1. For normal cleaning, standard household products may be used such as 409, Fantastic, or a good detergent soap. Be sure to use lots of water and keep sidewalls wet to eliminate possible streaking.
2. For stubborn stains, the use of an abrasive cleaner or scouring powder with a 3M pad (medium) should do the job. Again, be sure to use an ample supply of water.
3. For stubborn stains that resist normal cleaning, use unleaded gasoline (**Caution: Flammable**), followed by washing with soap and lots of water.

If an accident happens and you damage the roof, here is a temporary fix: Clean the affected area with unleaded gasoline (**Caution: flammable**) and let dry. Cover the area by overlapping layers of duct tape over the troubled area, until a permanent repair can be made by your Coachmen dealer.

Seams or Joints should be sealed around the roof, entrance doors, windows, roof and wall vents, access doors, storage compartments, roof edges, luggage racks, ladders, air conditioners, TV antenna, rails and moldings at least once each year with a similar high-quality sealant. Inspect all seams and joints at least twice a year and reseal as necessary. Some sealants cannot be applied over other types; when preparing areas to be resealed, scrape off old sealant. Clean metal areas with a vinegar and warm water solution. Clean fiberglass areas with mineral spirits before applying new sealant.

Shades, Blinds and Valances should be vacuumed or wiped with a damp cloth.

Sinks in the RV kitchen and bathroom should be cleaned with a cleaner that is non-abrasive. Stainless steel and porcelain cleaner may be purchased at most grocery stores. ABS cleaner may be purchased from your Coachmen dealer.

Steps should be inspected annually. Remove rust; paint steps and lubricate all moving parts.

Tires should be checked for damage and proper inflation prior to each trip.

TV Antenna exterior moving parts should be lubricated periodically.

Vents should be inspected and cleaned annually; lightly oil all moving parts. Inspect vents periodically for bird nests.

Vinyl-Coated ceiling and wall panels should be cleaned with a mild soap and damp sponge as needed.

Water Heater control compartment should be kept clean and free of combustible material and flammable liquids. The vent and combustible air grille should be clear of any obstructions. Manually operate the pressure temperature relief valve at least once a year. Operate only when storage water in tank is cool. Periodically compare main and pilot burner flame with illustrations in the manufacturer's operation instruction manual. Do not tamper with the pilot orifice to increase the pilot flame size; this can cause high water temperature and failure of gas control.

Windows, Doors, Compartment Doors should be inspected for damage or leaks prior to each trip. Replace any damaged or worn parts. Fix or replace any leaking parts. Lubricate moving parts and rubber seals with silicone lubricant. Clean dirt and debris from window tracks.

Wood Cabinetry should be protected and cleaned several times a year using any good non-silicone wood polish. Careful control of temperature and humidity will help reduce expansion and shrinkage of doors and door panels. If shrinkage occurs and unfinished parts of the door panels are exposed, cover the exposed areas with matching touchup stain available from your Coachmen dealer.

Appliance Identification Form

Should your unit or one of the appliances require warranty service, you will have to identify the manufacturer, model designator and serial number. Fill in this form as soon as possible. It will help you meet identification requirement. Depending on your unit, certain items listed below may be offered as either optional and/or standard. Most of this information can be found on the Recreational Vehicle Data Card attached to the inside of one of the kitchen cabinets.

EQUIPMENT	MANUFACTURER	MODEL DESIGNATOR	SERIAL NUMBER
Automotive Air Conditioner	_____	_____	_____
Converter	_____	_____	_____
Electric Water Pump	_____	_____	_____
Furnace	_____	_____	_____
Generator	_____	_____	_____
VCR/VCP	_____	_____	_____
Keys—Door	_____	_____	_____
Exterior Storage	_____	_____	_____
Other	_____	_____	_____
Microwave Oven	_____	_____	_____
Motorhome Body	_____	_____	_____
Motorhome Chassis	_____	_____	_____
Radio/Cassette	_____	_____	_____
Range/Oven	_____	_____	_____
Refrigerator	_____	_____	_____
Washer	_____	_____	_____
Dryer	_____	_____	_____
Roof Air Conditioner(s)	_____	_____	_____
Toilet	_____	_____	_____
TV	_____	_____	_____
TV Antenna	_____	_____	_____
Water Heater	_____	_____	_____

Travel Record

[illegible]

Maintenance Schedule*

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
Auxiliary Heater (Rear)	•		•				Maintenance, this 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

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

Appendix A ✓ Pre-Travel Check

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

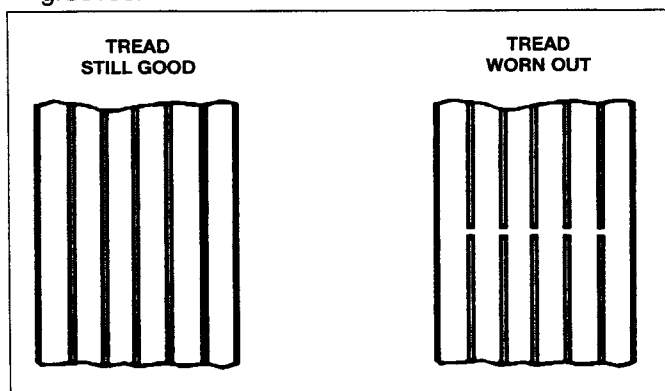
Whether you are departing from your home, rest area or campsite, you should check the following parts of your unit before you take off.

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 owners' 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).

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 owners' 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.

Appendix B ✓ Travel Preparation Checklist

CLOTHING

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

TOOL CHEST

Screwdrivers
Pliers
Hammers
Tire pressure gauge
Small level
Electrical tape
Masking tape
Wrenches
Allen wrench
Furnace duct tape

CAMPSITE COMFORT

Dishwashing soap
Dishcloths
Dishtowels
Garbage/trash bags
Mop
Broom
Vacuum cleaner
Dust pan
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 portable 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
Ash trays

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, flash
Tape player/tapes
Toys/games
Playing cards
Television
Radio

MISC. EQUIPMENT

Bucket
Fuses
Fresh water hose
Y-type water hose fitting
Flashlight
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

Appendix C ✓ Troubleshooting Guide

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

PROBLEM	CAUSE	SOLUTION
ELECTRICAL POWER		
No electrical power to unit.	Shoreline connection.	Make sure you have power to the shoreline.
	Circuit breaker (120V) may be off or tripped.	Reset breaker(s) at power center.
	Circuit breaker (12V) may be tripped.	Reset breaker at battery compartment.
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.
	Power cord ground wire removed.	<i>NOTE: Determine if shoreline has proper polarity.</i> Make sure shoreline post ground is earth ground and power cord ground is used.
LIGHTS		
Lights flickering.	Loose fuse holders.	Tighten or replace fuse holder.
	Blown fuse.	Replace fuse with one of the same ampere rating.
	Broken connection or wire.	Replace connection and/or wire.
	Bad ground.	Make sure ground connection is secure.
	Converter overheating.	Let converter cool down, reduce load.
Lights dim or half bright.	Bad battery.	Check battery condition.
	Possible converter malfunction.	Have converter checked by an authorized service center.
	Possible low voltage from shoreline.	Make sure voltage to shoreline is not too low.

PROBLEM	CAUSE	SOLUTION
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OUTSIDE RECEPTACLE

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

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 at generator.	Reset breaker.
	Circuit breaker may be off or tripped inside power center.	Reset main breaker.

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 ampere rating.
	Bad bulbs.	Replace bulbs.
	Bad ground (rear only).	Check white ground wire at rear frame.

PROBLEM	CAUSE	SOLUTION
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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.
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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.
	System hooked up to city water fill.	Disconnect hose from city water fill (do not need to use pump).
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.
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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.

PROBLEM	CAUSE	SOLUTION
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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 battery and/or replace battery.
Furnace does not light and fan does not run.	Blown fuse.	Replace fuse with one of the same ampere rating.
The furnace does not light after several attempts. 		1. Turn the thermostat and the furnace gas control valve OFF.
		2. Contact your Coachmen dealer or authorized service center. DO NOT attempt to repair or adjust the furnace yourself.

REFRIGERATOR

Refrigerator will not cool.	Unit not level.	Make 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.
	Blown fuse	Replace fuse with one of the same ampere rating.

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.

Travel Notes

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Travel Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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.

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.

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 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 tried to combine their business experience in finance, marketing and manufacturing.

Their confidence in the RV industry was well founded. From first-year production that 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 well over 449,000 units manufactured. The Company's RV product line includes travel trailers, fifth wheel trailers, motorhomes, truck campers, camping trailers and van conversions.

The Coachmen RV complex includes 120 acres with 588,000 square feet of assembly facilities under roof.



Coachmen®

RECREATIONAL VEHICLE CO.
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Middlebury, Indiana 46540

The Coachmen recreational vehicles described in this manual incorporate components produced by Coachmen Industries, its divisions, and various other suppliers. During the product year, Coachmen may decide to produce units with different components and/or specifications than initially scheduled. All such

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