

1979 1980



Coachmen
RECREATIONAL VEHICLES

Travel Trailer

owner's manual

Welcome to Coachmen's ever-growing family of happy RV owners. Hours of relaxation, adventure and enjoyment are possible for 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. Read it carefully and follow the instructions. Also read and follow the instructions contained in the appliance and accessory instruction booklets provided by various manufacturers which also are a part of the "Coachmen Information Packet".

Operating and maintenance instructions pertaining to appliances in this Owner's Manual were obtained from and are used with the permission of the various manufacturers. We reserve the right to present edited portions of their material.

Coachmen Industries, Inc., works year 'round to improve its products. Accordingly, all specifications, equipment, and prices set forth in Coachmen literature are subject to change without notice or obligation.

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 Coachmen dealer, or see the current brochure, for information concerning available standard or optional equipment.

JOIN the INTERNATIONAL COACHMEN CARAVAN!

The International Coachmen Caravan is your owner's club. It's designed solely to help you get the most pleasure from owning a Coachmen Recreational Vehicle. For complete information on how to join the Caravan, just write to The International Caravan, P.O. Box 30, Middlebury, IN 46540.

HERE'S WHAT YOUR CARAVAN MEMBERSHIP WILL BRING YOU:

1. CARAVAN IDENTIFICATION PACKAGE

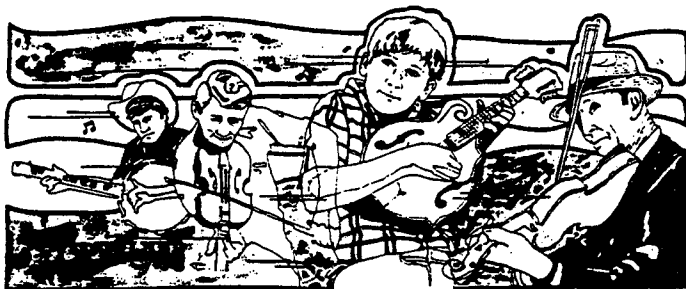
The first benefit a member receives is a complete Caravan Identification Package. The package includes a membership card and Coachmen Caravan decals and unit numbers.

These are all-important items to identify you as a full-fledged Caravanner eligible for all other Caravan benefits.



2. MEMBERSHIP ROSTER

Wherever your RV adventures lead you, you'll find friends with the Coachmen Caravan Roster. The list is organized by Caravan Identification numbers. When you spot another Caravan member — and there are more than 13,000 of them! — refer to your roster. You'll find the members' names, city, state and CB call letters. It's a great way to break the ice and open conversation.



3. MAP SERVICE

Caravan means travel and lots of it! To smooth the road for you and help you plan your trips, Caravan offers a special discount on the Rand McNally Road Atlas.

4. MAGAZINE DISCOUNTS

To help you enjoy all the aspects of RV'ing, Caravan offers its members special discounts on the best enthusiast magazines:

Trailer Life, Motor Home Life, Van Life and Woodall's.

Subscription cards will be furnished at no charge, to be mailed from the Caravan office.

5. CARAVAN TRIPS AND RALLIES

Nova Scotia! The Indy 500! Florida! Hawaii! Interesting places and events are a big benefit of Caravan membership. Each year, the International Coachmen Caravan has several special trips as well as an International Rally.

The professional Caravan staff is constantly striving to develop outstanding tours and events. Traveling to special places with a Caravan of friends is always a memorable experience. It's a great way to get the family together.

6. CAPERS — YOUR MAGAZINE

Capers is a bi-monthly magazine written for — and largely by — Caravan members. Capers will bring you news of Caravan chapters across the continent as well as news of upcoming trips and rallies, feature articles on the many aspects of owning an RV, recipes for outdoor cooking, etc.



7. PETE'S MARKET

Pete's Market is the Caravanner's mail-order store, chock-full of special items to make your RV adventures more fun. Special decals, patches, clothing, accessories and jewelry featuring our symbol, Pete the Dalmation, are available at very reasonable prices exclusive to Caravan members.



8. DISCOUNT FILM PROCESSING PROGRAM

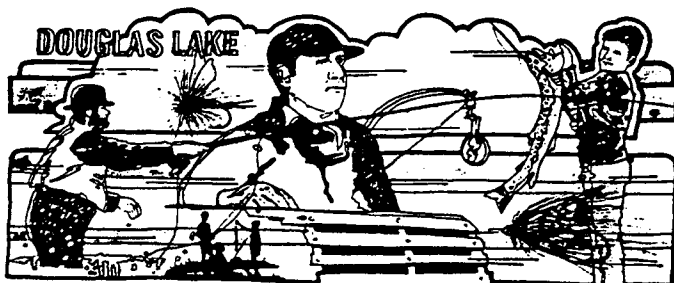
Photographs are the best way to preserve all those memories you'll be making on your Caravan trips and other RV travels. To help you have all the pictures you'll want, Caravan offers members a special discount film processing program. You'll receive an envelope to mail in your film for 24-hour processing at low, low rates.

9. CAR RENTAL PROGRAM

Wherever you travel, you'll benefit from the Caravan-Hertz Car Rental Program. All Caravan members are eligible for a 25% discount on Hertz Car Rentals. As a Caravan member, you'll receive a special card identifying you as eligible for this discount. Your family can travel more — for less!

10. DISCOUNTS ON TRAVEL ACCESSORIES

To help you enjoy your travels even more, Caravan members will receive discounts on travel accessories. You'll be able to purchase helpful items, such as highway emergency kits, at low, low rates exclusive to Caravan members.



11. CAMPGROUND MANUAL DISCOUNTS

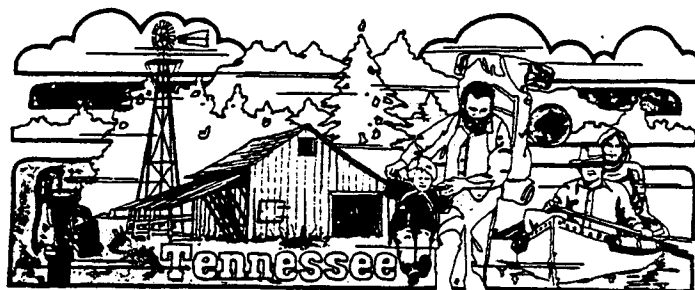
The well-known Wheelers RV Resort Campground Guide can really help you on your RV travels, and you can receive it at discount rates.

12. LOCAL, STATE & DISTRICT ACTIVITIES

In addition to International Caravan trips and rallies, you can enjoy your local, state and district Caravan Chapter activities all through the year. Whenever you feel like getting together with other Caravanners, chances are one of these groups will have an activity planned!

13. PERSONALIZED TRIP ROUTING

Caravan's Personalized Trip Routing Guide will help make your trip planning easier and your travels more enjoyable. Prepared especially for you by the Rand McNally Company, this trouble-free guide provides easy-to-read details on routes you request. Your customized route includes a National Inter-state map, individual state-by-state map routings, as well as maps of major cities on your way.



14. KOA PREFERRED CUSTOMER CARD

This card entitles you to special service at participating KOA campgrounds. Benefits include:

- Faster check-in and preferred treatment; meaning you can get the best sites available at the time of your arrival.
- Guaranteed money-back within one hour if you decide to leave.
- Extra benefits available at certain participating campgrounds.

The cost of a one-year membership is \$8.00; two-year membership, \$15.00, and three-year membership, \$20.00.



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INTRODUCTION

GENERAL

Now that you've purchased your new Coachmen travel trailer, you're anxious to start on your first trip. Coachmen and your authorized dealer have cooperated in providing the means for a quick getaway: Coachmen by designing and building your unit to rigid standards and thoroughly testing it at the factory, and your dealer by a careful retesting of systems and an inspection prior to delivery to you. Yet, after all that, we're going to ask you not to make a hasty departure. Because we want you to enjoy every trip, whether it's overnight, a weekend or season-long excursion, we first want you to get to know your unit and make careful preparations. That's why you'll find more than operating and maintenance instructions in this manual. You'll also find tips and suggestions to help you get started. There also are dozens of illustrations for easy identification of the various components.

NOTE: Illustrations identified by a Figure Number will be found in the convenient fold-out at the back of the manual.

Our first suggestion is that after you've read this manual and the appliance and accessories instruction booklets, store them in your unit for handy reference.

An overnight or weekend "shakedown" trip can help RV'ing novices become familiar with their unit and its systems and appliances. The experience gained and the hints other RV'ers are usually eager to share will help make future RV'ing more enjoyable. Although you purchased your unit with certain standard and/or optional equipment, you may wish to add other accessories later. Experience is invaluable in determining which additional items, if any, to choose. Remember, your Coachmen dealer will assist you in every way possible.

LICENSES

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

INSURANCE

Personal liability, property damage, collision and theft of contents may be features of your automobile policy which apply to your Coachmen unit. Contact your insurance agent about details of your coverage. Always carry your policy card.

TOW VEHICLE SELECTION

GENERAL

Selection of an adequate tow vehicle is essential. If you plan to use an automobile or truck you already own, contact the vehicle manufacturer or representative for information. If you will be purchasing a new

tow vehicle, be certain to tell your dealer the type and size of the RV you will be towing.

ENGINE SIZE

The engine must have enough horsepower to handle the tow vehicle, passengers, Coachmen unit and all its cargo. Most automotive manufacturers offer a trailer towing package which may include: Larger alternator and battery, heavier ply tires, sideview mirrors, heavier electrical wires, larger engine and transmission cooling systems. Consult the tow vehicle manufacturer's owner's manual for recommendations.

NOTE: The use of heavier suspension components (springs, shocks, axles) or heavier ply tires DOES NOT increase the weight ratings printed on the tow vehicle's identification or certification plate. The Gross Axle Weight Rating (GAWR) of each axle is determined by the components within the axle system with the lowest load-carrying capacity.

BRAKE CONTROL

A brake control system must be installed in your tow vehicle to operate the electric brakes of your unit.

ADDITIONAL VEHICLE OPTIONS

Automotive air conditioning, automatic transmission, power brakes and power steering are features which could make your trip more enjoyable.

CONNECTIONS

The travel trailer uses a ball hitch. Consult your Coachmen dealer for the proper hitch ball size and installation for your unit. Be certain the tow vehicle will accommodate the weight of the hitch. Hitch weights are listed in the brochure.

Installation of a weight distribution (load equalization) hitch is recommended on all travel trailers. It helps keep vehicles level and distributes some of the hitch weight to the tow vehicle's front axle and some to the Coachmen unit's axle(s). Also available is a sway-control device, which minimizes swaying caused by crosswinds, tires dropping off the pavement, or other vehicles passing yours.

TRAVEL PREPARATIONS

GENERAL

Determine the various items of equipment, clothing, food and other supplies required for the length and destination of your journey. In a subsequent section, the importance of proper loading is explained, but at this stage you're more concerned with a quick getaway. One way to reduce loading time is to purchase dinnerware, stainless steel flatware, pots, pans, towels and bedding, which can

remain in your unit at all times. After a trip, clean and launder the articles and replace them in your RV, ready for your next trip. The following is a guide to help in your travel preparation.

CLOTHING

Compile a clothing list for each person. Consider the season and areas through which you intend to travel. Basic articles: Underwear, socks, footwear, shirts, blouses, trousers, slacks, dresses, shorts, sweaters, jackets or coats, rainwear and swim suits.

CAMP HYGIENE

Dishsoap, dishcloths and dishtowels; garbage and trash bags; mop, broom and dustpan.

PERSONAL HYGIENE

Soap, washcloths, towels, toothpaste, toothbrush, deodorant, shaving kit, toilet paper, laundry soap and laundry bag.

SAFETY

Flares and reflectors; flashlight; first aid kit; tow rope and/or chain.

FOOD AND-WATER

Don't try to take a food supply for an extended trip. Take enough for two or three days and replenish supplies along the way. Take a basic supply of seasonings; sugar, salt, pepper and spices. Plan meals so that fresh or refrigerated items are used before they spoil. Fill your fresh water holding tank before leaving.

MEAL PREPARATION

Bottle cap and can opener; matches, lighter or igniter device; pots, pans, plates, glasses, and cups (paper or plastic are lighter and less likely to break while the vehicle is in motion); silverware and carving knife.

TOOL CHEST

Include an assortment of wrenches and screwdrivers, pliers, hammer, tire pressure gauge, small level, electrical and masking tape.

ADDITIONAL TOOLS

Hatchet, saw, shovel, and 12-volt portable tire pump.

EQUIPMENT

Fresh water hose (garden) and bucket; "Y" type water hose fitting; 20-foot 3-wire prong power cord; 3-prong adapter with grounding wire; fuses; wheel chocks, leveling ramp or blocks.

SLEEPING GEAR

Sleeping bags are ideal for cold climates but

sheets and blankets are better suited for warm weather. Take along an extra blanket or two for sudden drops in temperatures, such as can be expected in mountain areas even during summer. Be sure to take pillows, pajamas and mattress pads, if normally used.

ENTERTAINMENT

Take along games, toys, books, magazines, or other items of entertainment to occupy passengers while traveling or in case you encounter inclement weather.

IMPORTANT DOCUMENTS

Carry your vehicle registration and insurance policy card(s). If you are borrowing a vehicle, you should have a notarized letter of authorization from the owner with you.

TOURIST INFORMATION

Current road maps and tourist information for states through which you intend to travel are available through state tourist agencies. You also may want to purchase a tourist guide book.

If you will be visiting federally-operated national parks, monuments and recreation facilities, you may wish to look into the Golden Age Passport and the Golden Eagle Passport. They can help families cut spending at those areas where fees are involved.

GOLDEN AGE PASSPORT — The Golden Age Passport is a free lifetime pass for persons 62 and over and covers all admission fees and a 50 percent discount on use fees (except fees charged by private concessionaires). It may be obtained only at park service offices and at parks where entrance fees are charged. It cannot be obtained by mail or at post offices. To obtain the Golden Age Passport you will need proof of age, such as a driver's license, or be prepared to sign an affidavit swearing that you are 62 or over. NOTE: Medicare cards are not accepted since in some cases they are issued to younger persons.

GOLDEN EAGLE PASSPORT — The Golden Eagle Passport costs \$10 and is designed for persons who plan to visit several parks or federally-operated facilities in a single year. It covers all admission charges but does not cover use fees and is good only during the calendar year in which it is issued. It may be purchased in person or by mail at the National Park Service headquarters, Department of the Interior, Washington, D.C. 20240; at regional offices and at facilities where entrance fees are charged.

Both the Golden Age and Golden Eagle Passports cover admission fees for the permit holder and any persons accompanying him or her in a private vehicle. Where entry is not by vehicle, the passport covers the permit holder and members of his or her immediate family.

HOME SECURITY

Make arrangements for someone to check your house periodically. Stop mail and newspaper delivery. If you intend to be away for more than 2 weeks, request police surveillance. Carry an extra set of vehicle and house keys on a separate key ring.

TOWING HOOKUP

COUPLER

Turn the front jack crank (Figure 1) clockwise to raise the coupler above the hitch ball. Maneuver the tow vehicle to position the ball directly under the coupler. Raise the coupler lever to its fullest extent (Figure 1). Turn the front jack crank counterclockwise to lower coupler onto the ball. Secure the connection by pushing coupler lever down. For theft protection, you may purchase a locking device to insert through the coupler lever and the bracket holes.

FRONT JACK

Turn the crank counterclockwise (Figure 1) until the dolly wheel is off the ground. Loosen, but do not remove, the thumb screw which holds the dolly wheel to the jack stand. Remove the wheel and store; tighten the thumb screw. Continue turning the crank until the front jack is as high as possible to prevent it from hitting the ground while you are traveling.

SAFETY CHAINS, ELECTRICAL CONNECTION

Cross the safety chains under the "A" frame and attach them to the tow vehicle's hitch platform. Plug the pigtail (Figure 1) into the tow vehicle's electrical harness. Leave enough slack in the chains and pigtail to permit the unit to turn freely. Safety chains should not be touching the ground.

BREAKAWAY SWITCH

This safety device (Figure 2) will automatically activate the electrical brakes of your unit if your trailer accidentally separates from the hitch.

Attach the switch activating cable either to the tow vehicle bumper or the towbar portion of the hitch platform. DO NOT loop the cable around the hitch ball; this is the weakest part of the hitch platform. Adjust the cable length so it pulls the pin out of the switch before the coupler drops onto the safety chains. Allow enough slack so that both vehicles turn freely without pulling the pin from the breakaway switch.

NOTE: The tow vehicle battery will supply power for your unit's brakes if a separation occurs. However, if the pigtail also disconnects, the unit's brakes WILL NOT work unless an RV battery has been installed. DO NOT use the breakaway switch as a parking brake.

HITCH BALL HEIGHT

When the loaded trailer is hitched to the tow vehicle, check the hitch ball height, which can be determined by measuring from the top of the curved portion of the coupler to the ground (Figure 1). Adjust the equalizing bars of the hitch assembly to achieve proper height. A high hitch will transfer weight behind the axle(s), causing the unit to fishtail. A low hitch will transfer additional weight to the hitch. See the brochure for proper hitch ball height.

PRE-TRAVEL CHECK

GENERAL

Whether departing from your home, rest area, or campsite, you should perform these pre-travel checks:

TIRES should be inspected before each trip. Replace a tire when it is worn to 1/16" depth in two or more adjacent grooves, or to the level of tread indicators molded into the bottom of the tread grooves. Check tire for uneven wear or excessive peeling or bulging.

When purchasing a new tire, be certain it is the same size and has the same ply rating and load range as the old tire. DO NOT mix radial ply with bias or bias-belted tires.

Each morning inspect tire condition and pressure on your RV and tow vehicle. Heat generated by surface friction will increase the tire's air pressure approximately 6 to 9 psi; therefore, do not bleed air out of a hot tire. Inflate to recommended pressure as indicated on tire or in tire manufacturer's instruction booklet.

NOTE: Proper tire inflation is extremely important.

WHEEL LUGS must be tightened before departure; every 50 miles for the first 200 miles during your initial trip and after each tire change. Thereafter, tighten lugs periodically and before using unit after a storage period.

LIGHTS should be tested on both Coachmen unit and the tow vehicle, including brake lights, turn signals, warning flashers, clearance lights, tail-lights and tow vehicle headlights.

REARVIEW MIRRORS should be adjusted so the driver can see both sides of the unit.

POWER CORD (120-volt Shoreline) must be unplugged from the external source, pushed into its compartment and the cord hatch secured.

WATER FILL hoses must be disconnected and the caps secured.

SEWAGE TERMINATION VALVES must be closed and locked. The sewer hose must be removed from the termination outlet and stored in the rear bumper. Termination cap(s) must be securely fastened to the termination outlet(s).

DOOR STEP must be returned to its travel position by lifting front edge of step and pushing it under the unit (Figure 3).

WINDOWS AND VENTS should be closed and secured.

TV ANTENNA must be cranked down to its travel position.

LP GAS BOTTLES and connections should be secured.

NOTE: Some states prohibit vehicles equipped with LP gas bottles from using tunnels. A few other states prohibit traveling with the Service valve open and the pilots lit. Check the regulations of the states through which you intend to travel.

AWNING should be lowered and secured (Figure 4). To raise awning, pull retaining pins out and slide awning up. Tighten wing nuts to secure at desired height. To lower awning, loosen wing nuts and slide awning down. Slide retaining pins into latch holes.

PIGTAIL should be properly connected to the tow vehicle's electrical harness.

HITCH should be inspected to be sure it has not loosened.

SAFETY CHAINS AND BREAKAWAY SWITCH ACTIVATOR CABLE must be properly attached to the tow vehicle.

FRONT JACKS must be raised as far as possible.

DOLLY WHEEL must be removed and stored.

STABILIZING JACKS should be removed and stored.

AUTOMOTIVE SYSTEM should have pre-travel check as outlined in tow vehicle manufacturer's owner's manual.

INTERIOR DOORS AND DRAWERS should be closed and secured. Loose items should be lashed down or stored away.

REFRIGERATOR DOOR should be secured with the travel latch.

EXTERIOR ACCESS DOORS AND HATCHES should be closed and locked.

LOADING

GENERAL

A properly-loaded vehicle will perform better and handle more safely. Distribute your cargo from side-to-side and front-to-back. Store heavier items on or close to the floor and as centrally as possible. Lighter items may be stored in cabinets, closets and drawers. Luggage or similar cargo transported inside your travel trailer should be secured to prevent it from causing damage in case of a sudden stop or accident. Remember to leave space and weight allowance for souvenirs or other items you may

purchase during your travel. You also will conserve gasoline and prevent excessive wear on your tow vehicle's automotive system if the unit is not overloaded.

WEIGHT DETERMINATIONS

It is extremely important that you weigh your unit prior to leaving on a trip to determine whether your cargo load is within the allowable limits for the various suspension components of your Coachmen unit and tow vehicle. Check the Gross Axle Weight Rating (GAWR) and the Gross Vehicle Weight Rating (GVWR) found on the Federal Stickers of the tow vehicle and Coachmen unit.

FEDERAL STICKER

Found on the road side of your travel trailer, the Federal Sticker lists the Coachmen Serial Number, the front and rear Gross Axle Weight Rating (GAWR) and the Gross Vehicle Weight Rating (GVWR). Your tow vehicle also will have a Federal Sticker. The ratings are for specific rim and tire sizes, which are also listed.

MADE BY
Coachmen Industries, Inc.

GVWR _____

GAWR FRONT _____

GAWR REAR _____ WITH
55-15 STEEL W/ 5.0-15-60 RIMS, AT 50
PSI COLD SINGLE

THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY STANDARDS
IN EFFECT ON THE DATE OF MANUFACTURE
SHOWN ABOVE

VEHICLE ID. NO. _____

TYPE TRAILER

FEDERAL STICKER

DEFINITIONS

GAWR — The allowable weight, including cargo, which can safely be supported by each axle.

GVWR — The maximum permissible weight of your unit, all options, passengers, and cargo.

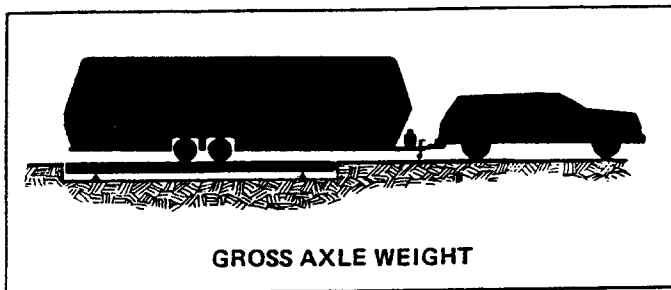
GVW AND GAW — are found by weighing the vehicle fully-loaded. GVW is the actual weight of the unit and all standard and optional equipment and cargo. GAW is the portion of the fully-loaded vehicle which is transferred to the axle(s).

You can weigh your vehicle at a grain elevator, sand and gravel dealer or government weighing station (they are listed in the yellow pages of your telephone book). The small fee involved is a worthwhile investment.

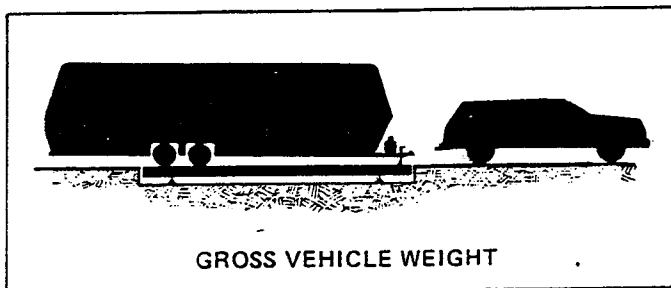
WEIGHING

STEP 1 — The Gross Axle Weight of the Coachmen travel trailer is extremely important. The unit should be weighed, fully-loaded for a trip

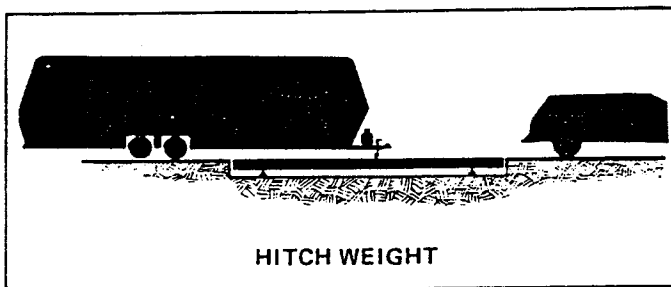
and connected to the tow vehicle. If the GAW exceeds the GAWR listed on the Federal Sticker, shift or remove cargo to achieve proper tolerance.



STEP 2 — You can find the Gross Vehicle Weight of the Coachmen unit by weighing it fully-loaded, disconnected from the tow vehicle, with the axle(s) and front jack on the scale. If the figure exceeds the listed GVWR on the Federal Sticker, remove cargo to achieve proper tolerance.



STEP 3 — You can find the hitch weight by placing the unit's front jack (at proper hitch ball height) on the scale. If the hitch weight exceeds 15% of the GVW of the Coachmen unit, shift part of the cargo toward the rear. If it is less than 10%, shift part of the cargo toward the front.



NOTE: See your tow vehicle's owner's manual for proper weight allowances and procedures for determining them.

DRIVING

GENERAL

Get to know how your tow vehicle handles with the added weight and length of your Coachmen unit. The brakes and steering operation will be different. Before leaving on a trip, practice turning, braking, backing up and accelerating. You may find

little difference in operation, but remember to allow extra room for the combined length of the tow vehicle-Coachmen unit. The following are tips to help you in your driving.

CLEARANCE

Watch out for overhanging tree branches, awnings, or similar obstructions which can damage your vehicle's roof or equipment or accessories mounted on the roof. Refer to the brochure for the clearance measurements of the unit.

PULLING INTO TRAFFIC

Check for oncoming traffic in all directions. Signal before entering the traffic flow. Accelerate slowly and smoothly.

TURNING

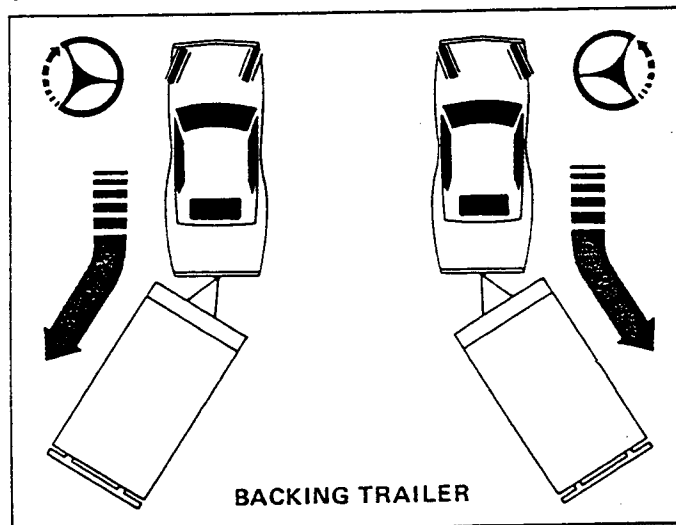
The wheels of your Coachmen unit are closer to the curb than your tow vehicle's wheels. Pull several feet farther into the intersection before turning to allow sufficient clearance for the rear of your Coachmen unit.

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 before passing. When you have safe clearance, signal lane change and return to your original lane.

BACKING

When backing your travel trailer, place your right or left hand at the bottom of the steering wheel. To move your trailer to the left, move your hand to the left; to move the trailer to the right, move your hand to the right. If the trailer starts to jack-knife, stop, pull forward and start again. You may want to station someone behind the unit to help guide you.



BRAKING

Allow a safe distance to stop; follow no closer than one combined tow vehicle-Coachmen unit length for each 10 mph. Pump the brake pedal lightly to stop on wet or icy roads. If you start to slide, turn the steering wheel in the direction of the slide. DO NOT tromp the brake pedal — a panic stop may increase the slide and could cause your unit to jackknife. DO NOT rest your foot on the brake pedal while driving. "Riding" the brakes in this manner may cause overheating, excessive lining wear and possible brake failure.

DOWNGRADES

Speed should be reduced; shift the transmission to a lower range to assist in braking on long or steep downgrades.

UPGRADES

Reduce speed when climbing a steep upgrade. Shift the transmission to a lower gear to avoid engine overheating. If your engine does overheat, consult your tow vehicle owner's manual.

PARKING ON A GRADE

Parking vehicles on a grade is not recommended. If it is necessary, apply the brakes and have a passenger place wheel chocks against the tires of your Coachmen unit. When in place, slowly release brakes until unit is stopped by chocks. Apply parking brake and place transmission in park position (place in gear for stick-shift vehicles).

FREING A STUCK VEHICLE

To pull your unit out of the mud, sand or snow, apply light pressure on the accelerator pedal and move the gear selector rhythmically between 1st gear and reverse. If possible, keep front wheels pointed straight ahead. Avoid sharp turns which could cause the unit to jackknife. Once you start to move, do not stop until the tow vehicle and travel trailer are on firm ground.

CHANGING TIRE

Change a tire on as level and firm a surface as possible. If you are on the roadside, activate the unit's hazard warning flashers. Set up flares and/or warning lights. Chock opposite tire and unhitch trailer from tow vehicle. Place scissors-type or hydraulic jack on a block of wood directly **UNDER THE FRAME**, close to the tire you intend to change. DO NOT use a bumper jack; it may damage the sidewalls or floor board. Raise the jack to take some of the weight off the tire. Loosen the lug nuts. Pull off the old tire and put the spare on the hub. Replace and tighten nuts. Lower the jack until the tire just touches the ground. Firmly tighten lug nuts. Lower and remove jack. Stop at the nearest service facility and have the torque checked. Lug nuts should have a torque of 90 ft.-lbs.

SWAYING OR FISHTAILING

If this happens, accelerate, then gradually slow down. If you have an automatic brake controller, apply only the brakes of your travel trailer. If your unit is still swaying, pull off the road and check tire pressure, cargo location, or tow vehicle front end alignment and suspension.

EMERGENCY STOPPING

DO NOT slam on the brakes if the coupler disconnects from the hitch — the camper may strike the tow vehicle. Steer toward the shoulder of the road and gradually reduce speed. The safety chains, which must be crossed under the coupler and hooked to the hitch platform, will prevent the tongue from dropping to the road.

CAMPING

CAMPSITE SELECTION

Some campgrounds do not accept reservations, but make one whenever you can. If possible, arrive early so you may inspect and choose a site during daylight hours. Try to avoid sites near a swamp, stream or other bodies of water which may harbor mosquitoes or other insects. Avoid parking under dead trees or loose limbs which might fall and cause injury or damage. Stay away from areas which show signs of flash flooding. DO NOT park on private property without first obtaining permission.

In winter, park behind a grove of trees, bushes or similar type of windbreak. Close the gap between the ground and the bottom of your vehicle's outside walls with plastic, canvas or similar material. This will cut down cold drafts which can affect interior temperatures.

COURTESY

Common courtesy will help make your stay more pleasant. Campsites are often close together and RV walls are not as thick as those in your home, so loud noises may disturb your neighbors. Follow the posted rules of the campsite. Open fires may not be permitted. If you can build a campfire, clear the area of flammable materials; never leave a campfire untended and always make certain the embers are completely extinguished.

LIVING AREA

SETUP

You'll want your travel trailer to be level for your own comfort (you don't want items sliding off counters and tables or out of cabinets). But more important, the unit must be level in order for your refrigerator and drainage system, both of which function by gravity, to operate properly. Place a small level on the bottom of the refrigerator freezer to check levelness. Bubble levels are furnished with some refrigerators or are available from your Coachmen dealer.

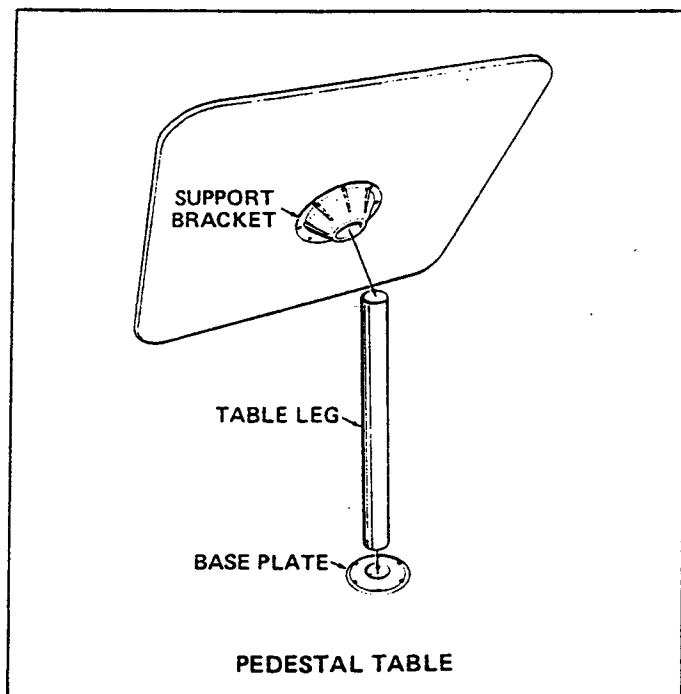
NOTE: Once the unit is level side-to-side and front-to-back, you may wish to permanently attach levels on the front and/or back and sides of the travel trailer. This will allow you to tell at a glance if you've stopped on a level site, and will help speed up the leveling process.

If the unit needs side-to-side leveling, you may make a step leveling ramp (Figure 5) using 1" x 6" or 2" x 6" boards of varying lengths. Pull forward or back onto the leveling ramp until the tire(s) on the low side are level. There are also various commercial levelers available; ask your Coachmen dealer about them.

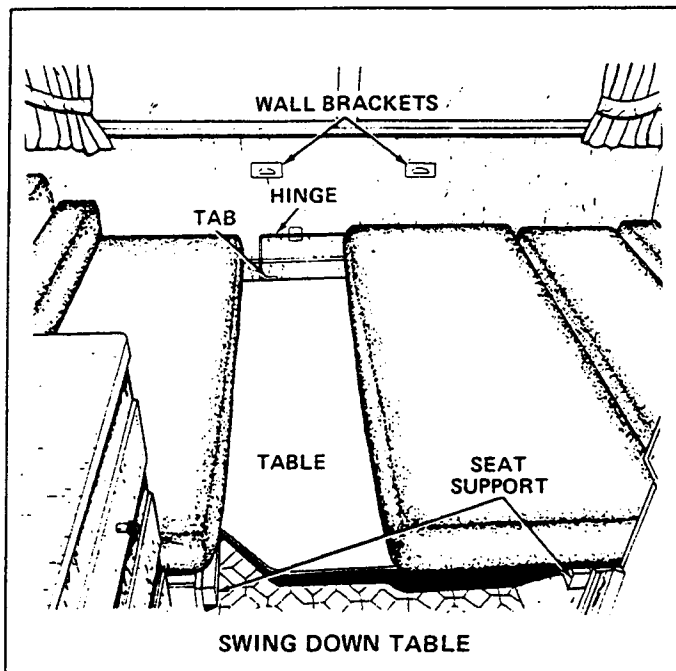
To level the travel trailer from front-to-back, unhitch the unit from the tow vehicle, install the dolly wheel and crank the front jack down (Figure 1). Never rest the unit on the front jack without the dolly wheel attached, or without a board under it. If the ground is soft, also place a board under the dolly wheel. Disconnect the safety chains, the pig-tail and breakaway cable from the tow vehicle and unfasten the coupler. Crank the front jack up or down until the unit is level. We recommend that stabilizing jacks (available from your Coachmen dealer) be placed under the frame to eliminate sway when persons move about inside the unit. Lower the front jack about 2" below level. Place a jack under both main frame members — **NEVER THE FLOOR** — at the rear of the trailer. Raise each jack until it touches the frame. Raise the front jack about 2" above level and place jacks under the main frame members near the front of the unit. Raise the jacks until they touch the frame, then lower the front end to level.

TABLES

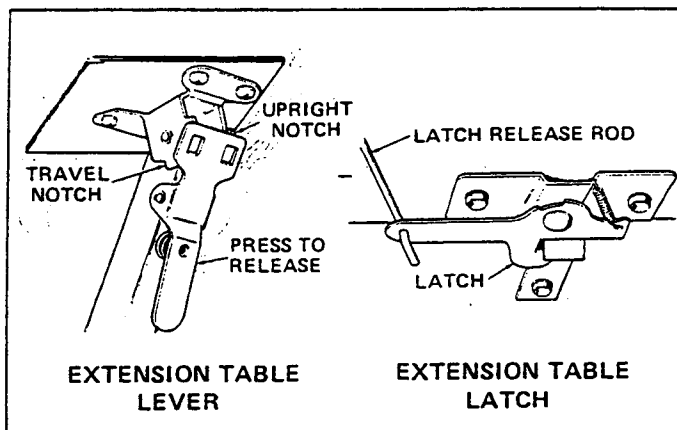
PEDESTAL TYPE — Insert table leg into the base plate. Lower table support bracket onto the leg.



SWING DOWN TYPE — Rotate back of table up to the wall brackets. Insert bracket, located on back of table, into the wall support. Pull the leg toward the table hinge until it releases then swing it down to the locked position.



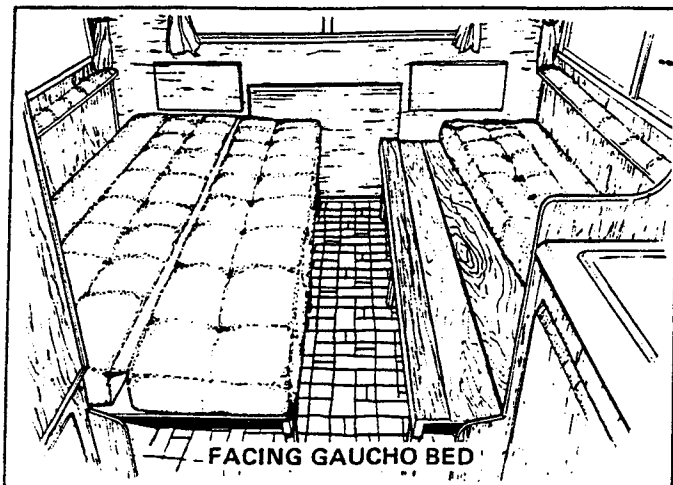
EXTENSION TYPE — Unfasten travel latch. Swing table up and release table leg by depressing lever; swing leg down to the locked position. Release the latch located under the table. Pull out the sliding portion of the table. Insert leafs and push table together.



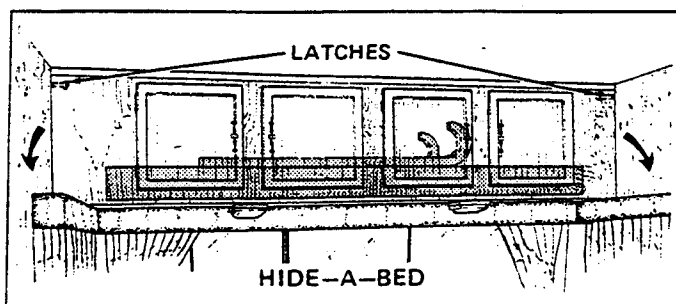
BEDS

GAUCHO TYPE — Swing table down and latch in travel position. Lift front edge of gauchio platform and slide it out. Arrange cushions on top.

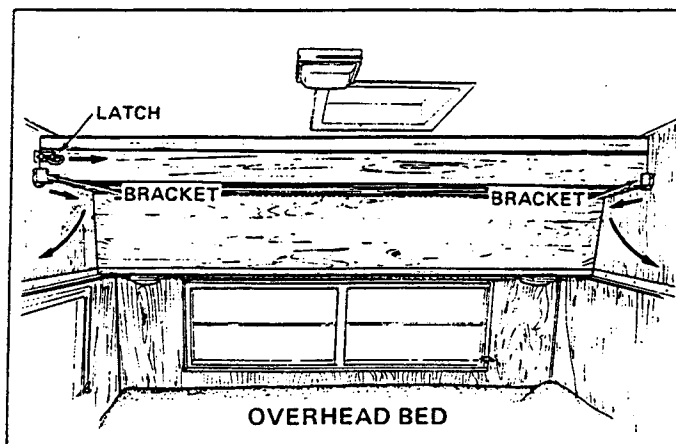
FACING GAUCHO TYPE — For those with extension tables, swing table down and latch in travel position. Slide out each platform until they meet. Arrange cushions on platform. For those with the swing down table, pivot the table down to the dinette seat supports. Arrange cushions on top.



HIDE-A-BED TYPE — Open both end cabinet doors. Release latches (one is located at each end, inside of cabinet). Close and latch the cabinet doors. Swing cabinet face down so that it rests on the supports. Position the reinforcing boards on top of the cabinet face. Arrange cushions on platform.

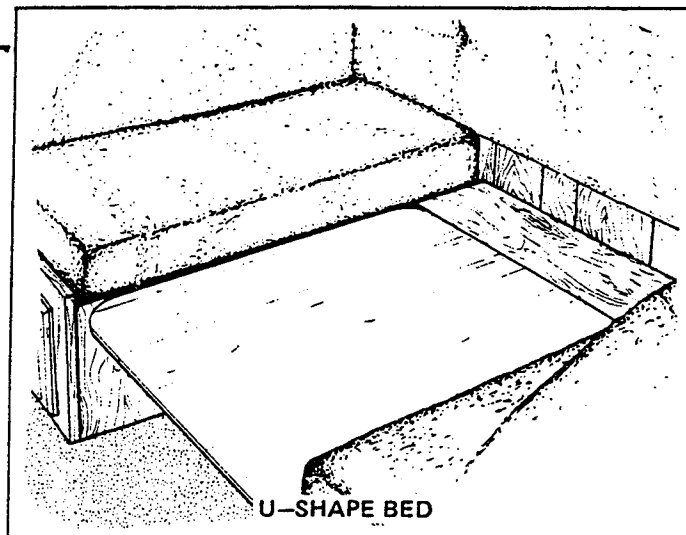


OVERHEAD TYPE — Release latch and push platform toward back wall to clear both brackets. Once clear, swing it out and lower onto supports.

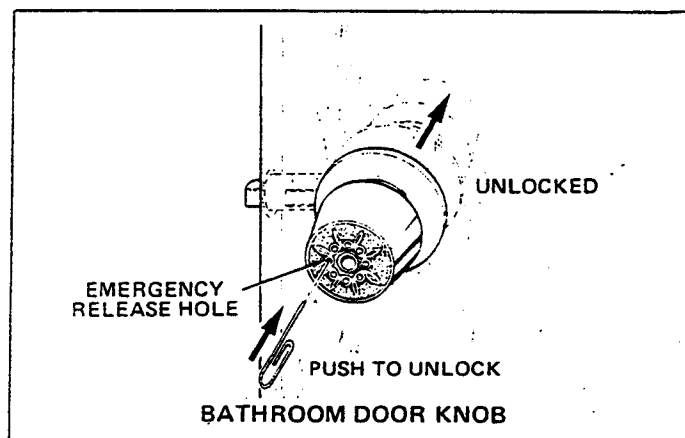


OVERHEAD BUNK TYPE — Release latch and swing platform down onto supports.

U-SHAPED DINETTE — Lift pedestal table and remove leg. Remove center cushion. Place table on seat braces and slide it inward. Arrange cushions on top. Store center cushion and leg under table or in a closet.



BATHROOM DOOR LOCK — Bathroom doors equipped with the plastic knob can be locked or unlocked from the inside by pushing in or pulling out on the inside knob. It can be unlocked from the outside by pushing a small metal object, such as a paper clip, into the emergency release hole.



CARE OF CUSHION COVERS — Vacuum cushion covers as needed. To remove grease spots, use commercial degreaser. For other stains, use a cool, damp cloth. Covers should be dry cleaned only.

CARE OF DRAPES, CURTAINS, VALANCES — Drapes may be machine washed and dried or dry cleaned. Valances may be cleaned with a vacuum sweeper or wiped with a damp cloth. Sheer curtains should be hand washed, drip dried, then cool ironed.

CARE OF WOODWORK — Clean woodwork with regular household furniture polish. DO NOT use water to clean wooden surfaces. Scuffs may be covered with furniture wax and stain mixture. Scratches may be covered with Putty Stic.

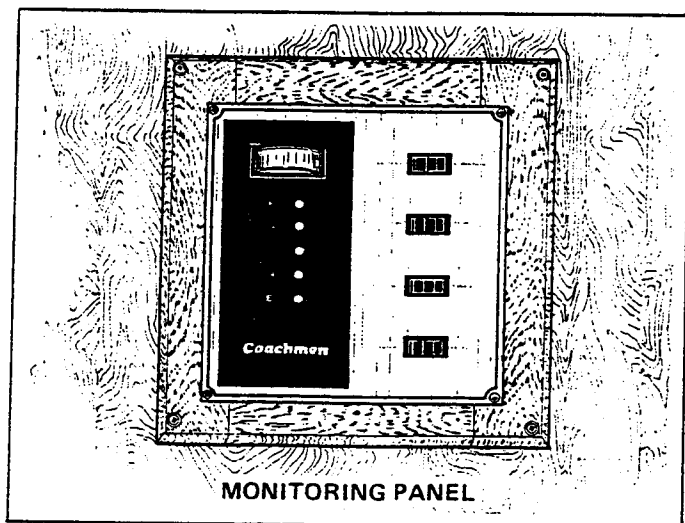
CARE OF WARDROBE, DRAWERS AND DINETTE STORAGE COMPARTMENT — Clean wood surfaces with household furniture polish. Wash plastic surfaces with warm water and liquid soap.

CARE OF FLOORING — Sweep and damp mop vinyl floors occasionally. Vacuum and shampoo carpet as required.

BASIC SYSTEMS

GENERAL

The basic utility systems in your Coachmen travel trailer can be classified under four titles — Electrical, LP Gas, Fresh Water and Drainage/Sewer. This section outlines these systems, describing their operation, function and simple maintenance. A monitoring panel (Deluxe models only) allows you to check the volume of fresh water, waste and gray water in your holding tanks and the condition of your RV battery. This section is not intended as a service guide. Your RV has been engineered and built to provide troublefree operation, but should a problem arise, we recommend that you contact your authorized Coachmen dealer.



MONITORING PANEL

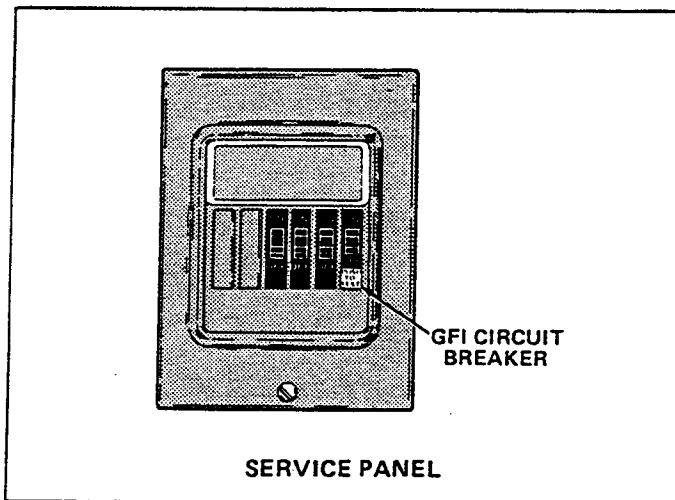
ELECTRICAL

GENERAL

The travel trailer contains two separate electrical systems, providing you with power while you are camped or traveling. There is a 12-volt direct current system, similar to the one in automobiles, and a 120-volt alternating current system, similar to the one in homes. Your 120-volt system requires an external source of 120-volt electricity. This is provided either by a connection to a campsite or household receptacle. The 12-volt system is supplied by batteries and is used when you are on the road or in campsites which do not provide 120-volt hookups. The 120-volt system is used whenever a 120-volt hookup is available, to reduce the 12-volt load on your RV battery. Although most components in your travel trailer, such as the water pump, range hood light and fan and interior lights, operate only from a 12-volt source, your vehicle is equipped with a power converter which changes 120-volt AC to 12-volt DC power.

120-VOLT SYSTEM

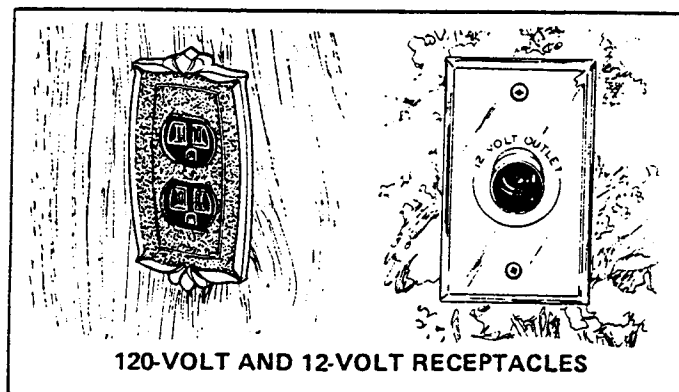
The 120-volt system supplies power for an optional roof air conditioner, the refrigerator, power converter for the 12-volt system, the exterior 120-volt receptacles (Figure 6) and the 120-volt receptacles located throughout the travel trailer, which are used to operate regular household appliances. When you use the external 120-volt hookup, the electrical power source is connected directly into the main electrical service panel and is distributed through circuit breakers.



GROUND FAULT INTERRUPTER — The bath and exterior receptacles are connected to a Ground Fault Interrupter (GFI). This highly-sensitive circuit breaker will help protect against severe electrical shock if a ground fault develops. If this happens, the GFI will break the circuit by turning the power off to those receptacles. Should this happen, unplug all appliances on that circuit and reset the breaker.

CAUTION: The GFI does not completely eliminate electrical shock. Small children and persons with heart conditions or other disabilities that make them especially sensitive to electrical shock may still be injured by a ground fault on the bath or exterior receptacles.

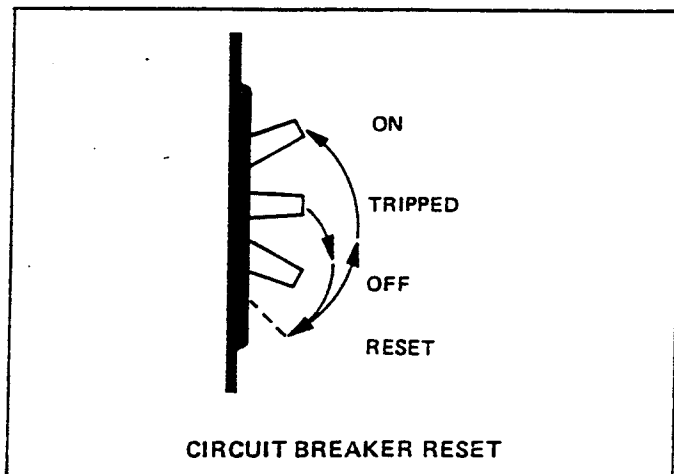
Test the GFI system at least once a month. Depress the PUSH TO TEST button. The button will pop out if the circuit breaker is operating properly. Power will be off at bath and exterior receptacles. Plug a test light into these outlets to verify power is off. To restore power, push in the button.



NOTE: If the button does not pop out or the test light indicates a live circuit, **DO NOT** use the outlets. Call your Coachmen dealer.

SHORELINE CONNECTION — The Shoreline (Figures 7 and 8) is a heavy-duty cable with a 3-prong grounding plug on one end, permanently attached at the other end to the service panel. It can be pulled from its storage compartment through a hatch in the sidewall of your vehicle and connected to an external receptacle. Some campsites and trailer parks still have two-slot outlets. If it is necessary to use a three-to-two adapter, be certain its grounding wire is fastened securely to the outlet grounding screw. If in doubt, you may attach a No. 6-AWG copper wire to the frame of the vehicle and fasten it to an 8-inch copper or brass stake driven into the ground.

The 120-volt system is protected by the circuit breakers. If a circuit breaker opens, unplug the appliances on that circuit, allow a short period for the breaker to cool, then reset the breaker. If the breaker continues to open, contact your Coachmen dealer.



12-VOLT SYSTEM

The 12-volt system, which includes the automotive battery and RV battery (Figures 9 and 10), plus the 12-volt converter, supplies power to the exterior and interior 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 (through the pigtail connection), the RV battery, or the power converter.

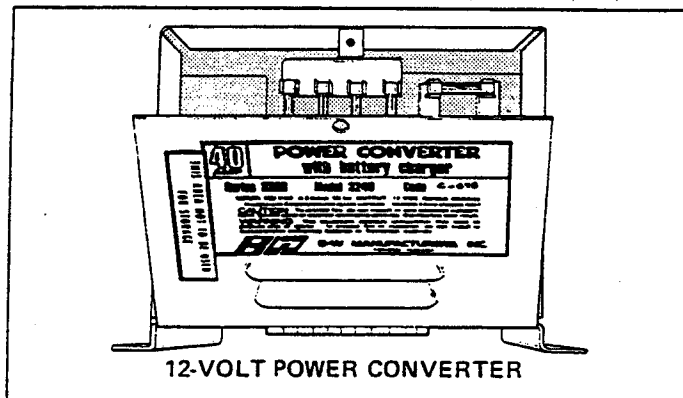
The automotive battery and alternator supply 12-volt power to the tow vehicle's lights and components and the RV's 12-volt system, including running lights, brakes and appliances, when the pigtail is connected. The automotive alternator also will charge the RV battery.

The RV battery supplies power to the furnace blower, monitoring panel, water pump, interior 12-volt receptacles, optional power vent(s), range

hood fan and light and interior lights. The RV battery also is charged by the power converter, whenever you are using a Shoreline connection.

BATTERY — Check the liquid level at least once a month. It must be above the plates. The battery manufacturer approves using a good grade of drinking water, excluding mineral water. When specific gravity is below 1.255, recharge the battery until 1.260 is indicated.

CONVERTER — The power converter transforms 120-volt AC into 12-volt DC. The converter supplies power to all of the 12-volt systems when it is supplied by a 120-volt source. Each 12-volt circuit is protected by a fuse in the converter. Remove the screw and open the converter door to expose 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 breaks, turn off or unplug all appliances on that circuit. Replace the broken fuse with one of the same ampere rating. If the fuse continues to break, contact your Coachmen dealer.



FRESH WATER SYSTEM

GENERAL

Fresh water for your unit is supplied either by the vehicle's fresh water tank or an external pressurized source. Both supply water to the sinks, lavatory, tub/shower, toilet and water heater.

CITY WATER

Connect a hose to a "city" pressurized water faucet and to the vehicle's water inlet (Figure 11). When using the city water hookup, the water tank and pump are bypassed. You cannot fill the water tank through the city water inlet.

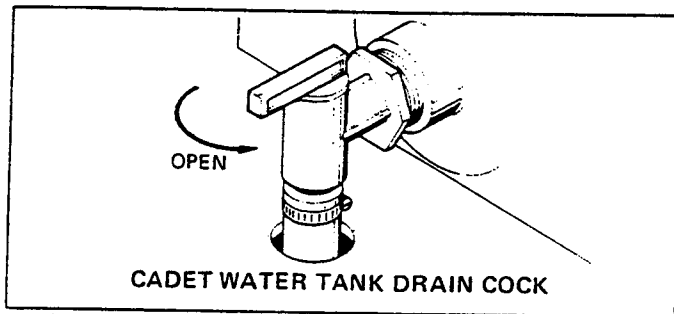
Although a common garden hose can be used to fill water tanks and to connect to city water, long time RV'ers recommend a hose specifically manufactured for this purpose.

CAUTION: In areas where city water pressure exceeds 60 psi., you should use a pressure regulator. Excessive water pressure may damage lines and connections. See your Coachmen dealer for further details.

WATER TANK

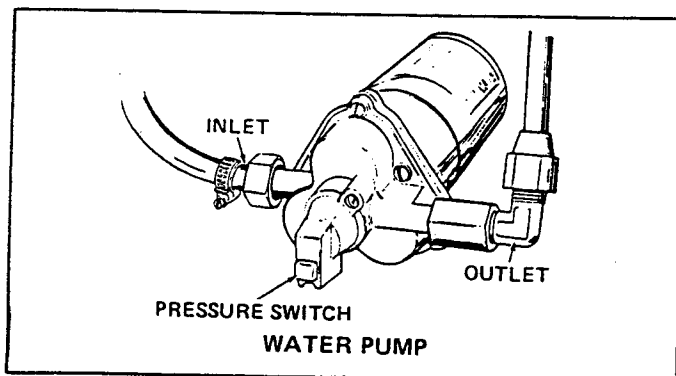
Open the gravity water fill, either by pulling out the fill spout or opening the door (Figure 12). Use a hose or vessel to fill the water tank. Water will flow out the water fill when the tank is full. The water tank in Cadet model travel trailers is beneath a gaucho or dinette seat; the water tank in Deluxe travel trailers is under the floor of the unit.

SANITIZING WATER TANK — Sanitize your unit's water tank before initial use, after a period of nonuse, and whenever the tank is suspected of being contaminated. Open the drain cock and let the water drain out. The drain cock on Cadet models is attached to the side of the water tank near the bottom and can be reached from inside the unit. The drain hose for Deluxe models extends from the bottom of the water tank beneath the unit and the valve (Figure 13) is attached to the hose. When the tank is empty, close the drain cock or valve. Mix 3 gallons of water with 3/4 cup of liquid household bleach. Pour solution into the tank through the gravity water fill. Wait 3 hours. Drain and flush the tank with fresh, potable water. If a chlorine taste lingers, pour 1 quart of vinegar and 5 gallons of water into the tank. Wait several days before draining tank. Flush tank with fresh, potable water.



WATER PUMP

Your water pump is a 12-volt DC appliance, activated by a switch on the Monitoring Panel or behind the kitchen counter. You may leave the switch ON while camping. This arrangement is known as a demand system. When you want water, simply open a faucet; the pump will run only as long as 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 may be empty, or there may be a leak in the system.



SINKS

Clean the kitchen sink, lavatory, bathtub and showerpan with non-abrasive cleanser. Stainless steel cleaner may be purchased at most grocery stores. ABS cleaner, such as Aqua K-7, may be purchased from your Coachmen dealer.

LEAKS

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

DRAINAGE/SEWER

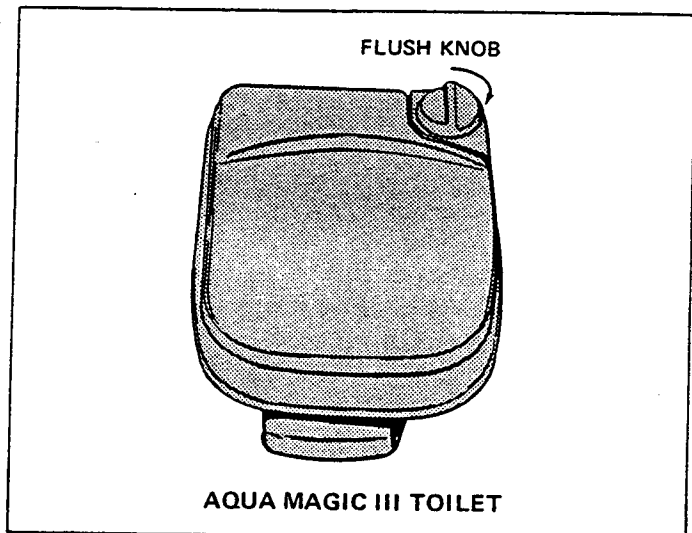
GENERAL

Your travel trailer will have a Drainage/Sewer system which functions much the same as the one in your home. It includes drain lines from the kitchen sinks, lavatory, and tub/shower to the gray water holding tank and a marine toilet which empties directly into a separate waste holding tank. The drainage system also includes vents which carry odors (caused by drain water and waste) out through the roof, while equalizing air pressure. The latter is necessary to maintain a water barrier against odors in the "P" traps and to ensure smooth flow and escape for your drainage system.

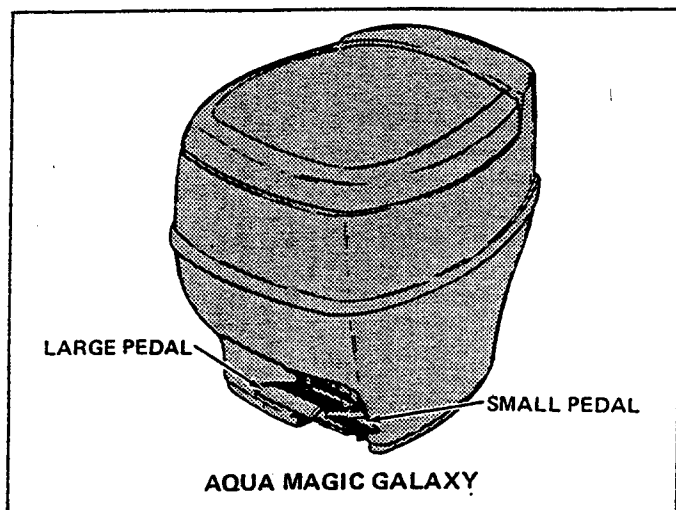
TOILET

Coachmen installs an Aqua Magic III or an Aqua Magic Galaxy toilet. The Aqua Magic III has a flush knob on top, the Aqua Magic Galaxy has two pedals near the front base. Before initial use and after emptying holding tank, flush the toilet. When the bowl is filled, pour in an 8-ounce bottle of Aqua Kem concentrate, then flush the toilet again. This will help control odors.

To operate the Aqua Magic III, turn the flush knob fully clockwise and hold until all contents have been swept into the holding tank. Always open for a minimum of 3 full seconds. When you release the knob, the bowl will automatically fill with water for next use.



To operate the Aqua Magic Galaxy, step on the small pedal to add water to the bowl. When the desired amount has entered, release the pedal slowly. To flush, step on the large pedal until the water swirls, release pedal slowly.



CARE OF TOILET — Use Aqua Bowl Cleaner as directed. DO NOT use highly concentrated or high-acid household cleaners (NO SCOURING POWDER). If the slide valve does not move freely, apply silicone spray.

HOLDING TANKS

A gray water holding tank is for kitchen sink, lavatory and tub/shower water; a waste holding tank is for the toilet. Each should be emptied frequently, always in a specified dumping station. Most campgrounds are equipped with dumping stations, often at each campsite; many service stations also have waste dumping stations. You can prevent unnecessary accumulation of solids in the waste holding tank by not putting facial tissues or similar items into the toilet.

EMPTYING HOLDING TANKS — Be certain your vehicle is level, since the emptying of holding tanks depends on gravity. Remove the sewage drain hose (Figure 14) from its storage area in the rear bumper. Remove the cap from the termination outlet and connect the sewage drain hose. If you leave the hose connected to the termination outlet when you are camped, DO NOT open the termination valve until you want to empty the holding tank. The system is not like your plumbing at home, where waste is flushed directly into the sewer system. Instead, if the valve is left open, only liquid waste may drain out, causing solids to collect and harden in the bottom of the holding tank.

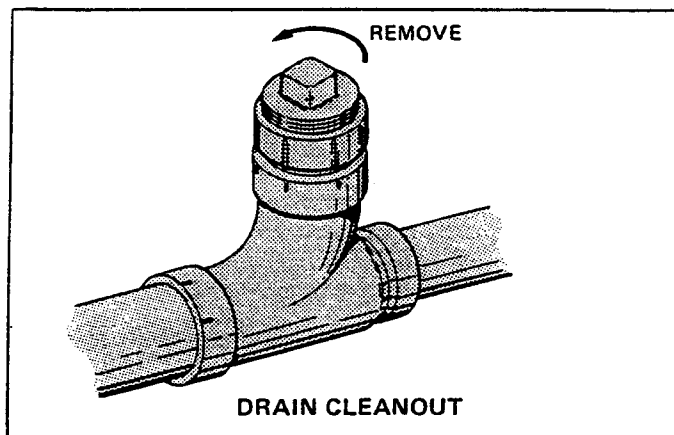
To drain either holding tank, pull out the dump valve slide handle (Figure 15). Close the valve after the tank has drained. Flush or pour about 2 gallons of water through the toilet when emptying the waste holding tank and drain again. This flushes the tank and helps clean the drain hose. Repeat as necessary. Follow the same procedure for a gray water holding

tank, although a repeat flushing may not be necessary. When the tank is empty, push the dump valve handle in until it seats. Remove the hose, wash and replace in its rear bumper holder. Replace termination outlet cap.

DRAIN PIPING

If your unit does not have a gray water holding tank, it will have a drain pipe which terminates on the road side of the vehicle. To drain, remove the termination outlet cap and attach the drain hose. Some campsites will have septic service for the disposal of gray water at each site. If the site is not so equipped, collect the gray water in a bucket or container and dispose of as required by park rules. To avoid contaminating your water system, use different hoses for fresh water and drainage. Hoses of different colors will help you avoid interchanging them. The same is true for buckets or other vessels used for fresh water and drainage; paint or mark them to prevent contamination.

DRAIN CARE — Use clear water to clean exterior pipe surfaces. DO NOT use harsh drain cleaner chemicals or solvents in drains. Drain cleanouts are installed at intervals to facilitate drain line cleaning or unclogging. Use a wrench to remove and replace drain cleanout plug.

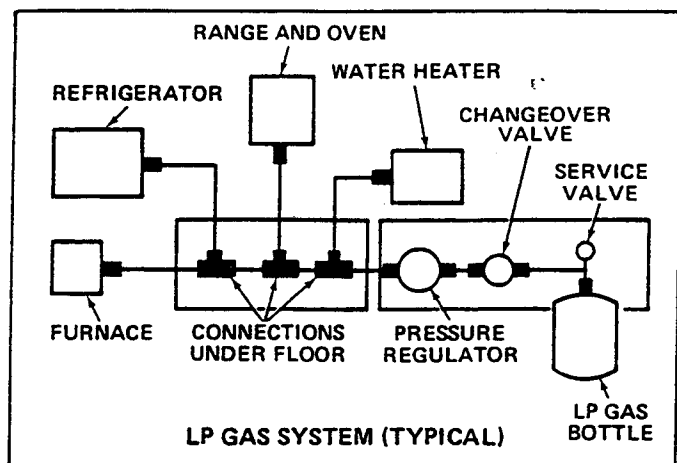


LP GAS SYSTEM

GENERAL

The Liquefied Petroleum (LP) Gas System in your unit furnishes fuel for hot water, heat, cooking, and refrigeration. LP gas, a by-product of the petroleum refining process, provides a portable, efficient and inexpensive source of energy. It is stored in a bottle or bottles on the "A" frame of your unit. Under pressure in the bottle, the LP gas turns to vapor; it is the latter which burns. Each bottle has a 20% liquid level gauge which allows space in the bottle for vapor expansion. The high pressure of the vapor in the bottle is reduced in two stages through a regulator. The bottle pressure will vary with temperature and altitude, but may be 100 to 250 pounds per square inch or more. It is 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). The LP gas is propane or a blend of propane and butane, depending upon your locale.



The LP gas system is designed and built to rigid standards and tested before leaving the factory. Your Coachmen dealer also tests the system prior to delivery to you. Except for simple maintenance and occasionally tightening a connection, you should take your unit to an authorized Coachmen dealer for LP gas problems. The LP bottle(s) should always be filled by an authorized LP supplier.

NOTE: Coachmen Industries is not responsible for personal injury or property damage resulting from improperly maintained LP gas appliances and systems.

LP gas burns readily and with intense heat. *With proper care and maintenance, it is safe and efficient.* However, there are certain characteristics of LP gas of which you should be aware. In its natural state, LP gas is odorless, but an additive gives it a distinctive odor so that leaks may be readily detected.

WARNING: For your safety, if you smell gas:

1. Open all windows
2. DO NOT touch electrical switches
3. Extinguish any open flame
4. Close Service valve
5. Immediately call your gas supplier

LP gas is heavier than air and tends to collect in low pockets. As LP gas settles into any closed area, it displaces air and thus could cause suffocation if not detected. It could also create a fire or explosion hazard.

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

CLIMATE DIFFERENCES

The appliances will not function if the LP gas does not vaporize. Butane will not vaporize below 32 degrees F. (the freezing point of water), but propane will continue to vaporize down to 44 degrees below zero. Propane has become the main type of

LP gas used in RV's in recent years. Your LP supplier will have the correct type or blend for your locale. If your travels will take you into an area where climate differs, ask your LP dealer for his recommendations. The names of LP suppliers can be found in the yellow pages of your telephone directory under "Gas-Liquefied Petroleum - Bottled & Bulk". Many campgrounds now have LP gas fill facilities, as do some service stations.

To operate any LP gas appliance, the LP gas bottle's Service valve(s) (Figure 16) must be OPEN. When first used, or after a refill, there may be some air in the gas lines which 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 bottle's Service valve some of the gas will remain in the lines. To completely bleed the lines of gas, CLOSE the bottle's Service valve and light a range burner to use up the excess. When the flame burns out, turn the range burner OFF.

REGULATOR/CHANGEOVER

Each LP gas bottle, or pair of gas bottles, will have a regulator. Double 20-lb. bottles also have a manual changeover valve and double 30-lb. bottles have either a manual or automatic changeover valve. With the manual valve, open only one bottle's Service valve. When the bottle is empty, close the Service valve and open the other bottle. With the automatic changeover valve, open the Service valves on both bottles. When one bottle is nearly empty, an indicator flag, which is part of the changeover valve, will change from white to red. At the same time, the automatic changeover valve will switch to the other bottle. Turn the indicator arrow to point toward the full bottle. Check the indicator flag regularly to avoid running completely out of LP gas. You can also check the volume of LP gas by weighing the bottle, comparing the known weight of an empty and filled bottle. The Tare (empty) Weight is stamped on the LP gas bottle handle.

Also stamped on the bottle is its Water Capacity in pounds. Multiply the Water Capacity by .42. The result will be the LP capacity in pounds (allowing for the 20% vapor space). Add the LP weight to the Tare Weight to get the total weight of a filled bottle.

EXAMPLE: If a 20-lb. bottle lists Tare Weight (TW) at 18 lbs. and Water Capacity (WC) at 48 lbs., the weight of the bottle when filled with LP to 80% of its total capacity will be 38 lbs. ($48 \times .42 = 20.16$ or 20 lbs. of LP 18 lbs. plus 20 lbs. = 38 lbs.)

FILLING THE LP GAS BOTTLES

Before removing an LP gas bottle, be certain all burners and pilot lights are OFF. Close the Service valve and turn the gas line connector clockwise to disconnect. For a single bottle, loosen the tank retention band nut and remove tank (Figure 17). For double bottles, turn the nut counterclockwise

enough to raise the "T" bar from both bottle handles, and remove empty bottle. Transport empty LP gas bottles in an upright position.

Take your bottle(s) to an authorized LP supplier for filling. He will connect the fill nozzle to the gas line connector. The Service valve and the 20% liquid level gauge must be open. When liquid appears at the liquid level gauge, the bottle is filled to its LP capacity: Stop filling immediately. When liquid LP gas is no longer visible, close the Service valve and the 20% 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.

CAUTION: Avoid overfilling by insisting that the LP gas bottle never be filled beyond the 20% liquid level. If the bottle is overfilled, have the LP gas dealer bleed out the excess. Overfilling does not allow sufficient space for the liquid to expand. This can produce excessive pressure which can cause LP gas leaks, creating a potential fire or explosion hazard. DO NOT smoke, strike a match or ignite a lighter when the LP gas bottle is being filled. A spark or flame could ignite fumes.

Re-install a single bottle by placing it in the retention band and tightening the nut. Re-install a double bottle by lifting the "T" bar and setting the bottle on the bottom support plate. Tighten the nut so the "T" bar holds both bottles in place. Re-connect the gas line and check for leaks.

LP GAS LINE CHECK

Always check the gas line connection after each refill and inspect other connections regularly, at least every 30 days or 5,000 miles of travel. To check, turn off all burners and pilot lights. Open all doors and windows. Open the LP gas bottle Service valve and use soapy water, a bubble solution or approved leak detector to test all line connections. Do not use products that contain ammonia or chlorine. Bubbles indicate a leak. Tighten the connections with two open end wrenches until bubbles stop. If leaks persists, contact your Coachmen dealer.

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 Coachmen dealer or LP gas supplier can perform this check.

LP BOTTLE CARE

After each trip, inspect the LP gas bottle(s). Sand off traces of rust and apply a rust preventive paint. Always use white paint, which reflects heat. When the LP gas system is not in use, the Service valve should be closed.

LP GAS REGULATOR FREEZEUPS

LP gas regulator freezeup is a problem RV

owners can prevent if they are aware of its causes. Freezeup is usually caused by one of three things: moisture in the bottle, an overfilled bottle, or a greater vapor withdraw demand than the bottle can deliver at a particular temperature. Freezeups occur more frequently in cold weather when equipment can freeze and there is a lower rate of vaporization and a higher rate of demand.

Moisture can enter the bottle in the LP gas or through condensation if air is allowed into the bottle through an open valve. Avoid these conditions by using moisture-free LP gas and keeping all bottle valves closed during storage. If moisture is present, have an authorized dealer purge the bottle and add anhydrous methanol, the dealer will know the correct amount for your size bottle.

An overfilled bottle can allow liquid gas, instead of vapor, to flow through the regulator. This can result in erratic regulator delivery pressure, improper appliance operation or burner outage, and possible frosting of the regulator and LP gas lines. This can be avoided by following the previously cited precaution about overfilling.

Liquid gas does not vaporize as rapidly in cold weather, so you may place too great a demand on your bottle's capacities in certain conditions. This can cause a refrigeration effect resulting in frosting of the bottle and regulator. Check with your Coachmen dealer or LP supplier about the appliance demands which can be met by your bottle at various temperatures. Always have your LP supplier add anhydrous methanol before filling the bottle in cold weather.

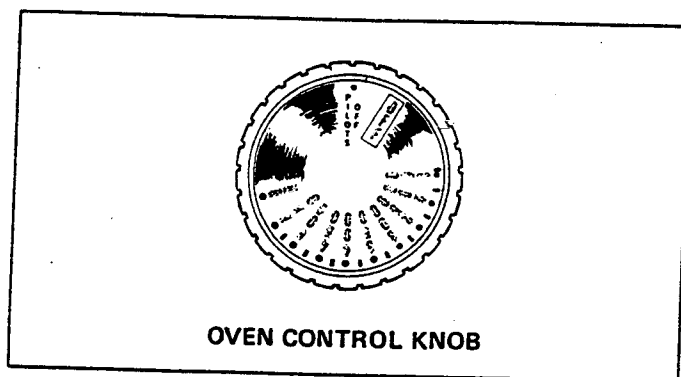
APPLIANCES AND ACCESSORIES

RANGE, RANGE HOOD, OVEN

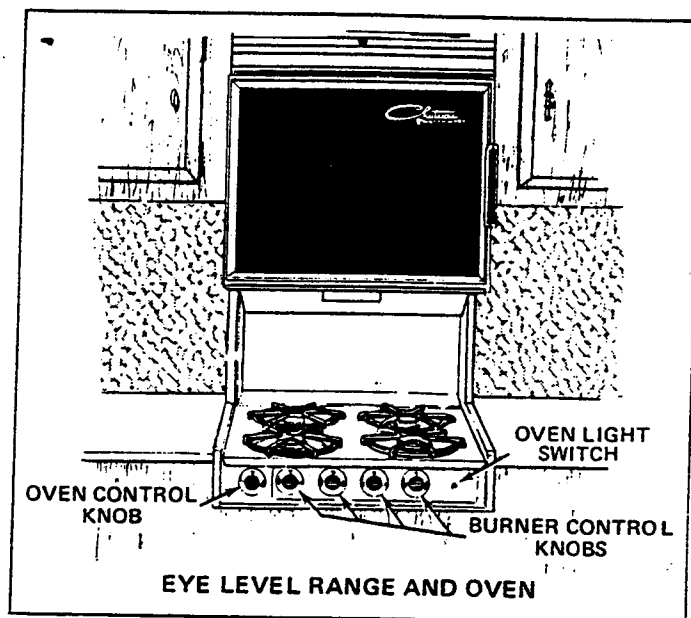
GENERAL — Your Coachmen travel trailer will have a three or four-burner range. Four-burner ranges also have ovens, either beneath the range or at eye level. Eye level ranges have a red button on the control panel which operates the oven light. The range will have a gravity range hood with a light, a power range hood with fan and light or a range hood with a fan only. The range burners and oven are LP gas appliances. Read the manufacturer's manual for complete details on the operation and care of the range, range hood and oven.

LIGHTING THE PILOTS — There are pilot burners on all LP gas ovens and the eye-level range/oven also has a pilot for the range burners. All pilot lights, including the range burner pilot, are turned on and off by the oven control knob. If you have the eye-level range/oven, you must light both the oven pilot and the range top pilot.

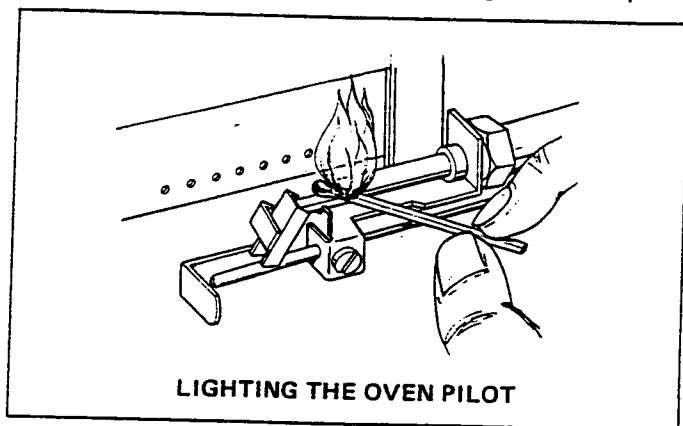
CAUTION: The oven control knob must be in the PILOTS OFF position unless the pilot or pilots are lit. Once lighted, the pilots will continue to burn when the oven control knob is in the OFF position.



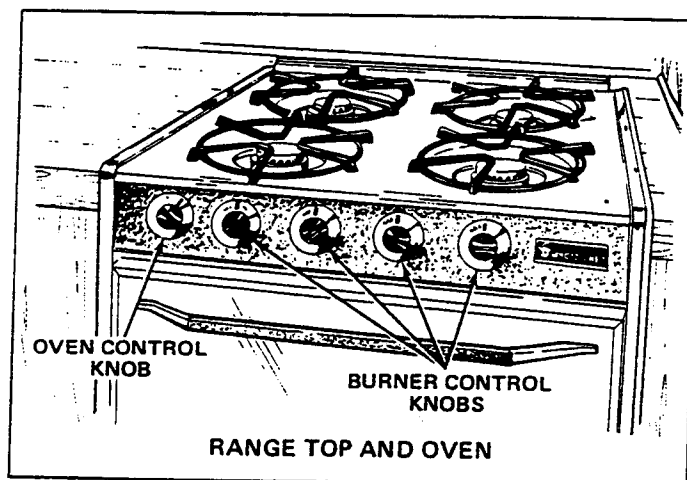
To light the oven pilot, be certain the LP gas bottle(s) Service valve is OPEN, then depress and turn the oven control knob from PILOTS OFF to OFF. Open the oven door and hold a lighted match next to the constant pilot area (it is near the rear of the oven compartment, just below the main oven burner). Relight the pilot if air in the line extinguishes the flame. When the pilot remains lit, adjust the oven control knob to the desired temperature. If the oven is part of the eye-level model, light the range burner pilot before lighting the oven pilot.



LIGHTING THE RANGE — Be certain the LP gas bottle(s) Service valve is OPEN. Hold a lighted match to burner then turn burner's control knob 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.

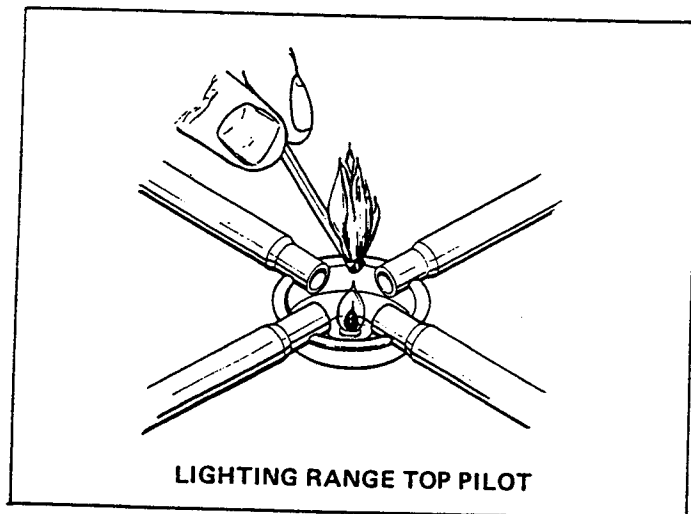


To light the range burner pilot (eye-level range/oven models only), lift the main top panel and touch a lighted match to the pilot. Turn a range control knob full ON; if the burner lights, the pilot is operating properly.

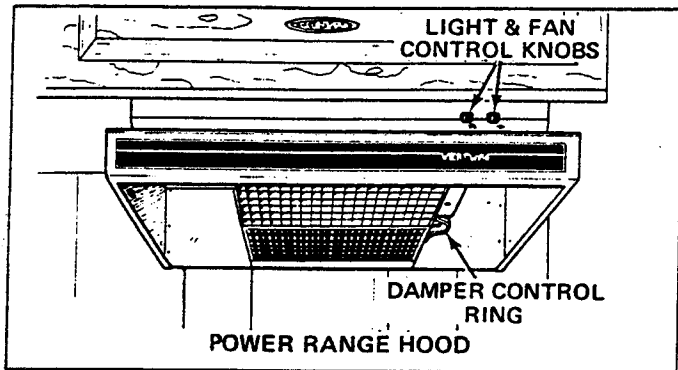


CAUTION: When using the range burners or oven, open a window or vent. DO NOT use range and/or oven to heat the interior of your unit. Failure to heed these cautions could result in asphyxiation.

BROILER — The oven is equipped with a broiler. To use it, light the oven and set the control knob to "B". Place the broiler pan in the area below the oven burner. Do not place meat too close to the flame, the fat may ignite. Use foil only as recommended; never cover the holes in the broiler pan or the air openings in the oven bottom with foil. Always remove the broiler pan as soon as you have finished broiling. If the pan is not removed and the oven is used, the grease may bake onto the surface or it may ignite.



RANGE HOOD — Your unit will have a gravity or 12-volt power range hood, each of which may also have a light. The gravity hood is a vent, which allows fumes to escape through a damper. Raise the damper when cooking. The power range hood has a fan and a light, each controlled by a knob on the top of the hood. To operate, pull ring on the right side of the filter to release damper. Turn fan ON to draw smoke and cooking fumes out of the unit. To secure the damper, push the ring in. Keep damper closed when traveling.



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. Use a toothpick to clean clogged burner orifices. **DO NOT** use metal objects, such as an ice pick or wire, to unclog burners. They may distort the opening and adversely affect burner operation.

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, you can remove and wash the plastic light cover. To clean the power hood filter, push slot located in center front of screen and pull down. If not greasy, simply tap the filter to shake out the dirt. If the filter is greasy, run hot water over it until grease dissolves. Soapy water also may be used. Allow the filter to drain and dry then replace by positioning the flanges and push into place. The gravity hood can be cleaned by gently rubbing a soapy cloth over the screen. If the light burns out, replace the bulb with a 25-watt, 12-volt bulb.

WATER HEATER

GENERAL — The water heater is an LP gas appliance capable of heating 6 gallons of water to a pre-set temperature. It will fill automatically either from the fresh water tank or when the system is connected to a "city" water faucet. When filling the fresh water tank, open a hot water faucet briefly—with the pump switch ON—to allow the water heater to fill.

LIGHTING PILOT — Open gas bottle's Service valve. Turn the gas cock knob to OFF. Always wait 5 minutes to allow LP gas, which may have collected in the burner compartment, to dissipate. Your water heater will be equipped with a Robertshaw "UNITROL" thermostat (Figure 18) or an ITT General Control Thermostat (Figure 19).

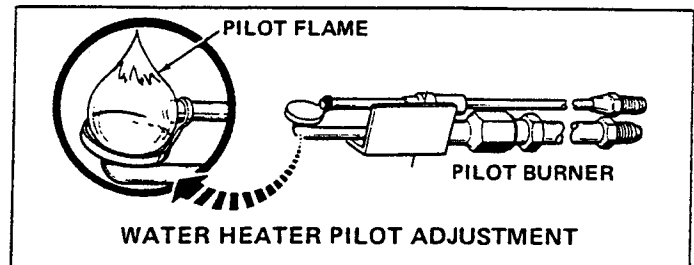
ROBERTSHAW "UNITROL" THERMOSTAT — Turn the gas cock knob counterclockwise to PILOT. Press and hold the reset button while you apply a lighted match to the pilot burner. Release the reset button after pilot has burned one minute (repeat procedure if pilot goes out). Turn the gas cock knob to ON.

ITT GENERAL CONTROL THERMOSTAT — Turn and hold the gas cock knob to the PILOT position as you hold a lighted match to the pilot burner. Release the gas cock knob after one minute (repeat procedure if pilot goes out). Turn the gas cock knob to ON.

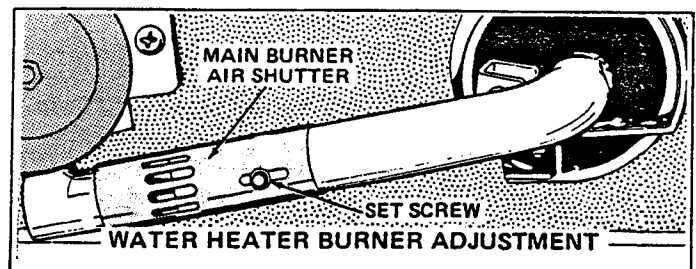
TEMPERATURE CONTROL — Adjust the Temperature Control Dial (UNITROL), or the Temperature Selector Lever (ITT) to the desired temperature as marked on the control.

NOTE: The main burner will light automatically and burn as needed to maintain the temperature you have selected. It is a good idea to light the water heater the night before you leave and turn it off in the morning. The water will remain hot for several hours while you are traveling.

PILOT ADJUSTMENT — Remove the pilot adjustment screw protective cap and turn set screw to adjust the flame so it is 1/2" high or has a yellow tip. The procedure for the ITT is the same, but the adjustment screw does not have a cap over it.



BURNER ADJUSTMENT — Loosen the set screw which holds the air shutter in place. Slide the main burner air shutter to the right until the flame has a yellow tip. Slowly slide the shutter to the left until the yellow tip disappears. Tighten set screw.



EXTINGUISHING BURNER — Turn the gas cock knob to OFF.

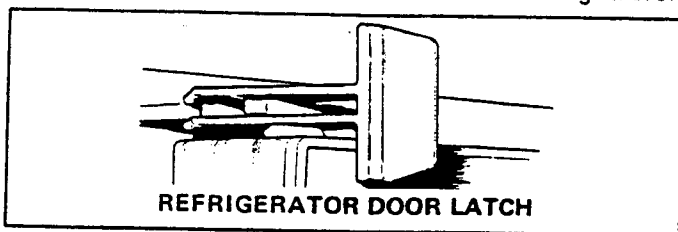
DRAINING — The water heater will have a drain cock or drain plug, which may be opened or removed in order to drain the water heater tank. To facilitate drainage, open all hot water faucets. When water ceases to drain, close the drain outlet. Because of the location of the drain outlet, about two quarts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

CARE OF WATER HEATER — Be certain the exterior compartment is clean and does not contain combustible materials. Never obstruct the relief valve or vent. If the water heater has a drain cock, use a metal object to scrape away the sediment. Periodically drain and flush the water heater tank. After draining, the remaining water can be removed by flushing the tank with water or blowing dry with air. In either case, close all hot water faucets and open the drain cock or plug. The water hose or air hose can be connected to the water inlet or outlet (inside the unit) or to the relief valve port (in exterior compartment). To use the relief valve port, the relief valve must be removed. Use a pipe or crescent wrench to turn the valve counterclockwise. Attach water or air hose and flush until water ceases to drain. Replace the water inlet or outlet hose or the relief valve and close the drain cock or replace the plug. The water heater is now ready for refilling or storage.

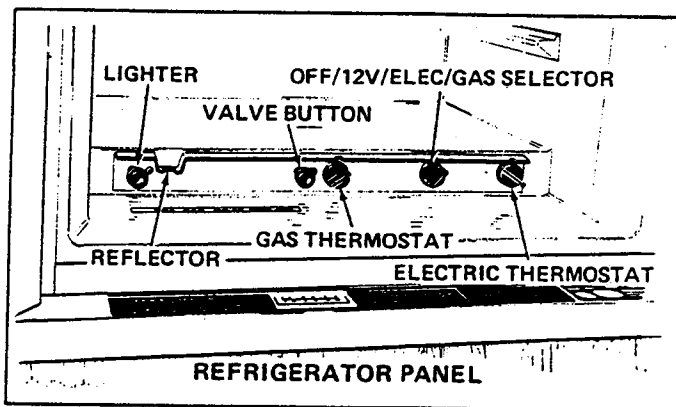
NOTE: The relief valve must be replaced securely. Use pipe compound to assure a water tight seal.

REFRIGERATOR

GENERAL — When you park your vehicle, even for a relatively short period, the refrigerator must be level since it functions on the gravity flow of chemicals. (If you must stop on an uneven site, turn the refrigerator control OFF.) Use a level on the freezer compartment floor to check levelness. Whenever possible, park the vehicle so the refrigerator side will be opposite the sun. Your refrigerator is powered by LP gas, 120-volt or 12-volt electricity. The control panel is located inside the refrigerator door. Before starting on a trip, use the Shoreline connection to cool the refrigerator the night before. Keep items to be stored in your RV refrigerator in your home refrigerator or freezer until you are ready to leave. This will reduce the cooling load on your RV refrigerator and help keep perishable foods fresh longer. Always store food in sealable containers or suitable wrapping. When traveling, switch to 12-volt electrical operation. Use door latch during travel.



LP GAS OPERATION — Turn the OFF/12V/ELEC/GAS selector counterclockwise to GAS. Pull the valve button out while pushing lighter button in. Repeat this until ignition is observed through the reflector. Turn the gas thermostat to the highest number on the dial. Later adjust temperature to meet your cooling requirements.

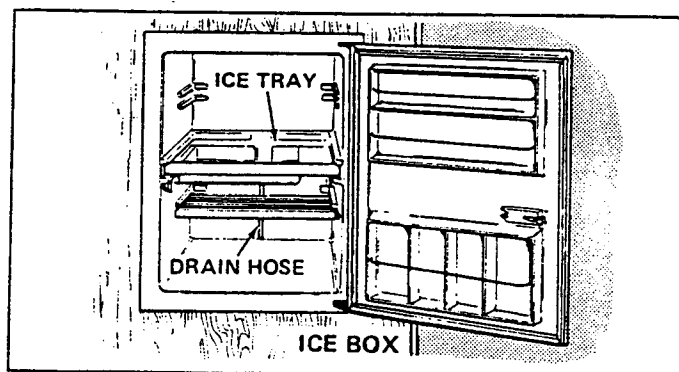


ELECTRIC OPERATION — The refrigerator operates on 12-volt or 120-volt electricity. The refrigerator is the only 12-volt appliance which does not draw power from the converter. Even with the Shoreline connected, the refrigerator's only source of 12-volt power is the RV battery. When parked at a campsite, switch to LP gas or to a Shoreline connection to conserve your battery. Make certain the refrigerator power cord, reached through the exterior access door, is plugged into the 120-volt receptacle, located in the outside compartment. Be sure the breaker is ON.

Push, then turn the OFF/12V/ELEC/GAS selector to the source of power desired, 12-volt or ELEC (120-volt). Turn the electric thermostat to the highest number on the dial. Later adjust temperature to meet your cooling requirements.

ICE BOX

Place ice in the top tray. Make sure the hose, located near the back of the tray, is not bent or clogged. Water drains through this hose and onto the ground as the ice melts.



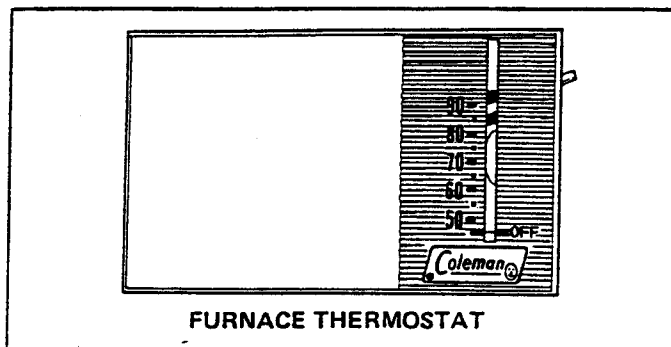
CARE OF REFRIGERATOR AND ICE BOX — Remove food and ice after each trip. Clean interior with warm water and liquid dishsoap. Wipe dry with

soft, dry cloth. DO NOT use abrasive cleaning material; it will scratch interior surfaces. Prop the door open during periods of nonuse.

To defrost refrigerator freezer, remove frozen food and ice. Turn off the thermostat. Place a pan of hot water inside the compartment to speed up the defrosting process. Dry the interior with a clean cloth.

FURNACE

GENERAL — The RV furnace is an LP gas appliance. It may be an automatic or Piezo ignition model; both are controlled by a wall thermostat. Heat is circulated through a duct system on larger models and directly through the grille on smaller models.

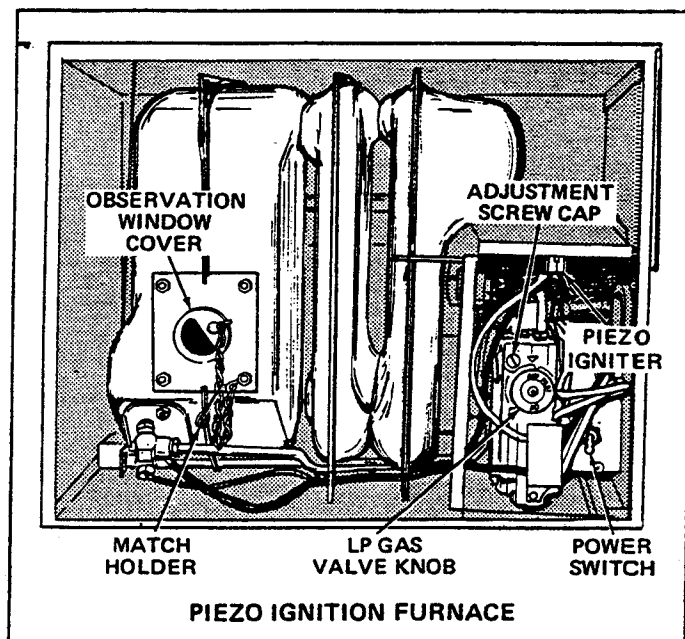


NOTE: It is important to remember that although a furnace's heat source is LP gas, the blower operates on 12-volt electricity. DO NOT operate the furnace for prolonged periods without a 12-volt power source; you could run down your RV battery.

FURNACE IGNITION — When igniting the furnace, be sure the LP gas bottle's Service valve is OPEN. To remove front panel of furnace, press down on silver tab and pull panel outward.

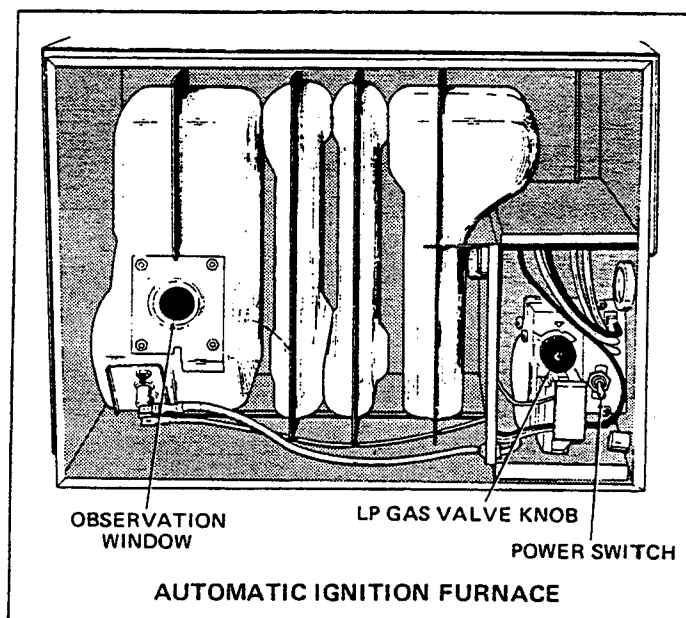
Piezo Ignition — To light, remove the front panel. Set thermostat to highest setting (blower will start), then turn red gas valve knob to OFF and wait 5 minutes. Reset thermostat to lowest setting (blower will stop). Turn red gas valve knob to PILOT. Depress gas valve knob and light pilot by depressing Piezo igniter until it clicks or snaps. Several strokes may be required before the pilot lights. On initial lighting, the pilot may not ignite immediately due to air in the gas line. If this occurs, it may be necessary to hold the red gas valve knob in for 1 minute or more before the pilot lights. When the pilot ignites, continue to hold in the gas valve knob for 30 seconds or until the pilot remains lighted when the gas valve knob is released. Turn the gas valve knob to ON. Replace front panel and set thermostat to desired temperature.

If the furnace doesn't light, set thermostat to OFF; wait 30 seconds and repeat lighting procedure.



Automatic Ignition — Remove front panel. Set wall thermostat, power switch and gas valve knob to OFF. Wait 5 minutes. Turn power switch and gas valve knob ON. Move thermostat up until the blower begins to operate. Allow 20 seconds for the furnace to light. In cold weather, it may take up to 2 minutes or more for ignition. When lit, replace front panel and set thermostat to desired temperature.

If furnace doesn't light, set thermostat to OFF; wait 30 seconds and repeat lighting procedure.



NOTE: If the RV furnace doesn't light after 3 attempts, turn OFF gas valve knob, power switch and wall thermostat then contact your Coachmen dealer. DO NOT attempt to repair or adjust the furnace yourself.

PILOT ADJUSTMENT — Only Piezo ignition models may be adjusted; the automatic ignition models have been pre-set at the factory and require no adjustment. To adjust the pilot, remove the protective cap screw and rotate the small screw beneath counterclockwise for more flame and clockwise for less flame. Observe the flame through the window. When the proper height is reached, replace the cap screw.

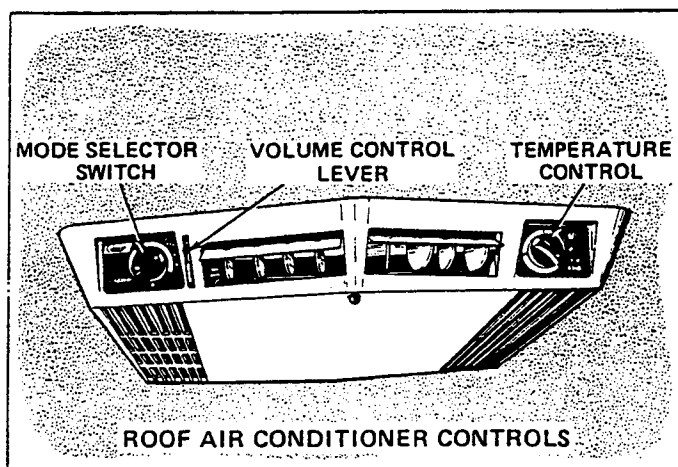
CARE OF FURNACE — For ease of maintenance, the furnace is mounted on a sliding tray. Before each heating season, clean the circulating air blower, the combustion air blower, the inside of the furnace casing and the burners. Blow pressurized air through the slots and remove any contamination. Check all piping joints and furnace controls with a soap solution to detect leaks. The control compartment must be kept clean at all times. Check furnace Inlet/Exhaust Cover (Figure 20) on the outside of your unit periodically to be certain it is free of objects which might block the openings.

NOTE: Portable fuel-burning heating appliances should not be used for comfort heating in the living area of your Coachmen unit.

ROOF AIR CONDITIONER

GENERAL — If you did not order the optional roof air conditioner at the time of purchase, your unit is wired so that one can be added. Just order it from your Coachmen dealer. The roof air conditioner will operate **ONLY** on 120-volt electricity.

CONTROLS — The roof air conditioner is controlled by a panel on the portion of the appliance which is attached to the ceiling inside your unit. Turn the control knob clockwise for colder air and counterclockwise for warmer air. You can adjust the air volume by sliding the volume control lever up or down.



MODE SELECTOR SWITCH — You can select **FAN ONLY** or **COOLING** with the Mode Selector Switch. **FAN ONLY** is used to recirculate and filter the air inside your unit. The fan and filters operate during each mode as well, but on **FAN ONLY** there is no cooling function. To cool the air, turn the

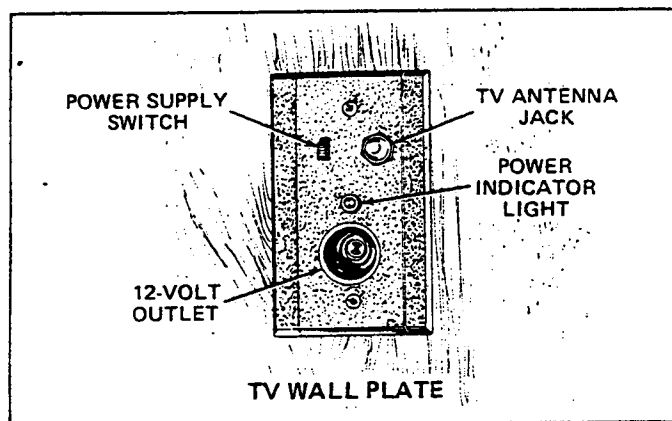
selector switch to the desired fan speed within **COOLING** function and turn the temperature control to the desired coolness. For fastest cooldown, turn the air volume control lever to maximum output.

*CAUTION: After turning the air conditioner off, allow 3 to 5 minutes before returning the selector switch to **COOLING**.*

CARE OF AIR CONDITIONER — Remove and clean the filter at least once every two weeks if it is used extensively. Wash filter with soap and water. **DO NOT** operate the air conditioner for extended periods without a filter.

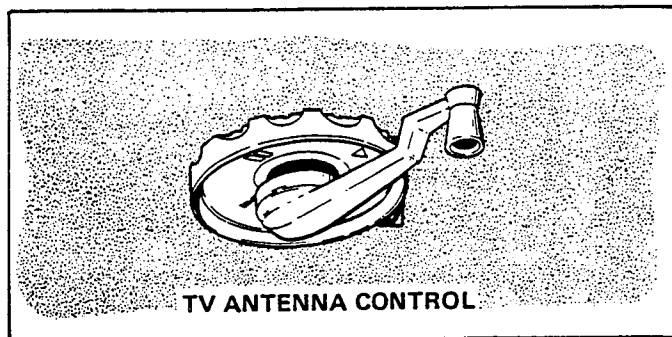
TV ANTENNA

If you plan to use your television in your Coachmen unit, an optional antenna will improve your reception. A coaxial connection for the antenna cable from your TV set, and a switch which turns on the amplifying system, are mounted on a wall plate. A light indicates when the power outlet switch is on. The plate also may include a 12-volt receptacle for TV sets especially designed for that type of energy.



Simply turn the antenna crank handle in the **UP** direction until some resistance is felt. Pull down the rotating knob to disengage it from the ceiling plate and turn it until you find the best sound and signal.

Always lower the antenna before moving your unit. Turn the rotating knob so that its pointer lines up with the ceiling plate pointer. Turn crank handle in **DOWN** direction until some resistance is felt. Turn off the power switch.



AM/FM/MPX STEREO RADIO AND 8-TRACK TAPE PLAYER

The tape player is equipped with an automatic head cleaner. Occasionally you will have to clean oxide off the tape playback gear, capstan shaft and the automatic track selector. To activate the capstan, depress the switch (located next to the capstan) with the eraser end of a pencil. Use a cotton swab, moistened with isopropyl alcohol, to clean the playback head, capstan shaft and the automatic track selector.

CAUTION: *DO NOT use carbon tetrachloride to clean components of the tape player.*

MAINTENANCE

GENERAL

Recreational vehicle owners are noted for the pride they take in the appearance of their units. Proper maintenance will do more than keep your Coachmen travel trailer looking nice: it can help ensure trouble-free operation and maximum efficiency of the various appliances and components. Failure to properly maintain the vehicle or its components also may constitute a breach of your warranty obligations. Negligence, misuse or installation of unauthorized equipment could affect the operation of your unit and may void your warranty. See the various manufacturer's manuals for specific maintenance instructions.

ROOF AND SEAMS

Your unit is equipped with a one-piece roof which does not require maintenance, other than washing and waxing. We recommend that you do not walk on the roof, except on areas intended for storage of luggage. Coat awning rails with silicone. Coat window seams with rubber composition sealant.

BODY

Wash dust and dirt, road tar, bird and tree droppings, insects and other foreign material from exterior surfaces. Use a mild soap in cold or luke-warm water. Apply automotive type wax at least once a year.

CAUTION: *To avoid marring body surfaces, DO NOT use abrasive cleaning compound or cloth; DO NOT wipe the surface with a dry cloth; DO NOT wash or wax your unit in the hot sun, wait until the surfaces have cooled. Wait 30 days after purchase before waxing your new unit.*

FRAME

Inspect the frame periodically. Remove dirt and rust and apply rust preventive paint.

WHEEL BEARINGS

Check wheel bearing lubrication regularly. Use a

good grade of grease to pack them. Check for damage to rims and hubs.

STORAGE

GENERAL

You should perform the following procedures if you will not be using your unit for an extended period.

LP GAS SYSTEM

Close the LP gas Service valve. Extinguish all pilots and close all LP gas valves. 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 by opening the drain cock or removing the drain plug and opening all hot water faucets and the relief valve. Close all valves and faucets when water ceases to drain. To flush or blow dry, see CARE OF WATER HEATER in the APPLIANCE section.

FURNACE

To shut down the furnace for storage, turn OFF the gas valve knob, the power switch and the thermostat.

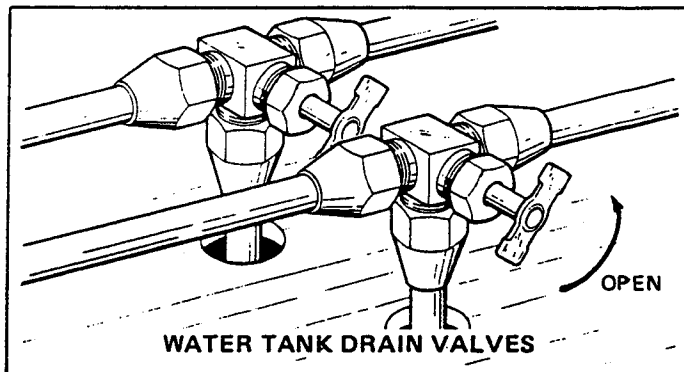
ELECTRICAL SYSTEM

Turn off all circuit breakers at the service box. Remove battery and store it at room temperature in a dry place. (See Winterization Section.)

NOTE: *DO NOT store battery in an area where it could be exposed to extreme heat and sparks. Be sure the room is properly ventilated since batteries give off hydrogen fumes.*

WATER TANK

Turn ON water pump. Open all water faucets. Open the water tank drain valve and the hot and cold water line drain valves. Water line drain valves are inside, near the water tank, on Cadet models and outside, under the floor, on Deluxe models (Figure 21). When the tank is empty, close all faucets and drain valves.



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 rag to absorb this water. If you wish to blow the lines out with air, apply the air nozzle to the system where the outlet hose has been removed. Be sure all valves are open. You can reattach the outlet hose now or later. The pump is now ready for summer or winter storage.

EXTERIOR

Store your unit in a garage or other shelter, if possible, or cover with a tarpaulin or plastic.

If you will not be using your travel trailer for an extended period, block it up to prevent tire damage.

INTERIOR

Close and secure all doors and windows. Open a roof vent or window slightly to allow circulation, but be certain interior damage does not occur during inclement weather.

WINTERIZATION

GENERAL

You should make special preparations for storing your unit in winter. All systems, components and appliances should be inspected and repaired prior to storage. Winterize the unit before removing the batteries.

Drain the fresh water system and water heater as described in STORAGE section, then pour 6 gallons of approved, non-toxic RV antifreeze into the gravity water fill. This will allow you to winterize the fresh water, drainage and sewer systems, and the water heater. Follow the checklist below.

CAUTION: *DO NOT use automotive antifreeze in the fresh water system; it is poisonous.*

FRESH WATER SYSTEM can be winterized by briefly opening all faucets and turning the pump ON, with all of the sink and shower drains closed. Turn the faucets off when antifreeze flows out. Turn water pump OFF. Water pump should be prepared as described in STORAGE section.

WATER HEATER can be drained by opening the drain cock or removing the drain plug and opening all hot water faucets and the relief valve. Although about two quarts of water will remain, there is ample room for expansion if it freezes. However, this water can be flushed as described in the CARE OF WATER HEATER in the APPLIANCE section, and antifreeze may be added if desired. The antifreeze may be added directly to the water heater tank or after the water system has been winterized, by opening a hot water faucet and the drain cock or plug. Close the drain cock or plug and the faucet when antifreeze appears at the drain outlet.

HOLDING TANK should be drained and rinsed before the antifreeze is allowed to run into it. The dump valve shaft should be inspected and lubricated if needed. Be certain dump valve is closed.

DRAINAGE SYSTEM should be winterized by removing the sink and shower drain plugs to allow antifreeze to circulate through the lines. Pour an additional 2 cups of RV antifreeze into each drain.

AQUA MAGIC TOILET should be flushed until antifreeze is present in the bowl. Turn the flush knob and insert a round object, such as a soft drink bottle, into the bowl outlet. Slowly release the knob until the blade holds the object in place. This will prevent water residue from being trapped inside the bowl where it could freeze. Leave the object in place all winter.

SHOWER HEAD should be drained and filled with winterizing solution.

LP GAS system should be prepared as described in the STORAGE section. The regulator should be covered to keep moisture out of the vent. Containers should have anhydrous methanol added by an LP supplier.

BATTERIES should be recharged and water added, if needed. Disconnect cables and store in a cool, dry place. Check regularly and recharge as needed.

NOTE: *DO NOT store batteries where they might be exposed to extreme heat or sparks. Be sure area is properly ventilated since batteries give off hydrogen fumes.*

DRAPES should be removed and washed or dry cleaned.

WINDOWS should be masked with newspaper or similar material.

COUNTERTOPS AND CABINETS should be cleaned.

REFRIGERATOR OR ICE BOX should be cleaned and the door propped open.

FURNACE should be cleaned and exterior vent covered.

RANGE should be cleaned.

BODY should be cleaned and waxed; locks and hinges oiled, and snow accumulation should be removed with a long-handled broom.

UNIT should be placed on wooden blocks or jackstands on a firm, level surface. Tires should be removed, partly deflated, hung on a wall, and covered to protect from sunlight.

FIRE SAFETY

Prevention is the best form of fire safety. Follow the instructions previously listed for the care, maintenance and operation of the various appliances in your vehicle. Make certain everyone in your party

is familiar with emergency features of the unit, the locations of exits and the location and operation of fire extinguishers. A chemical fire extinguisher has been furnished with your unit.

Follow the same rules of prevention that you would at home. DO NOT smoke in bed. DO NOT overload the electrical wiring. DO NOT use matches, candles or lighters to look into dark closets or drawers. DO NOT leave food cooking unattended. DO NOT permit children to play with the controls of LP gas or electrical appliances. DO NOT store flammable liquids inside your unit.

If a fire does start, get all members of your party outside. If it is a small fire, use the fire extinguisher. If the fire cannot be extinguished quickly, GET OUT. Close the LP gas Service valve and move a safe distance from the vehicle. Call the fire department. DO NOT use water on the fire and DO NOT re-enter the vehicle until officials declare it safe to do so.

EMERGENCY EXITS

Travel trailers with one entrance door have an emergency exit — either a window or a small door. Small emergency exit doors, such as in bunkhouse models, can only be opened from the inside and cannot be locked. Emergency exit windows are installed in the window furthest from the entrance door and are identified by a label on the window frame. To operate, lift the two small levers at the side or two latches along the bottom of the window and push out.

VISITING CANADA OR MEXICO

GENERAL

Passports or visas are not required for entry into CANADA or MEXICO. However, tourist cards are necessary for MEXICO if you will be staying more than 72 hours or travel farther than 40 miles from the border. Cards can be obtained at the port of entry or from a Mexican consulate. You should carry your birth certificate, voter's registration card, baptismal certificate or similar proof of identity when entering either country. 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.

The information in this section is general in nature and 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.

VEHICLES

No special driver's license or permit is necessary in either country, but renew your license if it has or will expire during the trip. Proof of vehicle owner-

ship is required at the border. If you are using someone else's unit, you should have a notarized letter authorizing its use. MEXICO requires a vehicle permit for every self-propelled vehicle. The permit can only be obtained from Mexican customs (Auduana) offices upon presentation of tourist card, vehicle registration, and title or notarized statement from owner.

CANADA requires a Canadian Non-Residential Interprovincial Motor Vehicle Liability Insurance card, which is only available 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. Your insurance policy is NOT valid in MEXICO. Temporary insurance must be purchased from Mexican companies whose offices are located near the border.

CB RADIO

CB radio operation in CANADA requires a temporary license which can be obtained by writing Regional Director, Telecommunications Regulation Branch, Department of Communications, 20th Floor, 2085 Union Avenue, Montreal, Quebec H3A 2C3, Canada. MEXICO currently prohibits the use of CB radios.

HUNTING AND FISHING

Each province has its own laws and license requirements. You must provide a written description and the serial number of each gun at the border. Revolvers, pistols and fully-automatic firearms are prohibited in CANADA. A license must be obtained from the province in which you intend to hunt or fish. Further information can be obtained by writing the Department of Lands and Forests, Wildlife Branch, in the province you intend to visit. Hunting and fishing laws in MEXICO are extremely complicated. Request further information from Secretaria de Comunicaciones, Estados Unidos Mexicanos, Mexico DF.

DOGS AND CATS

CANADA requires a certificate, signed by a licensed veterinarian in the U.S. or CANADA, attesting that a dog has been vaccinated for rabies in the past 12 months. The certificate must contain a description of the dog and date of vaccination. Puppies under 3 months old need no certificate. There is no restriction on the entry of healthy cats.

A certificate, signed by a licensed veterinarian, describing the pet and attesting that it has had a rabies shot in the past 6 months, is required in MEXICO. A fee is charged for the required verification of the certificate by a Mexican consulate.

COACHMEN WARRANTY

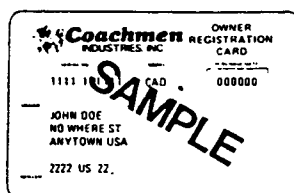
GENERAL — Every Coachmen product is backed by our position as an RV industry leader, achieved through years of experience in producing units

noted for their quality and dependability. Our one-year limited warranty, a pioneer in the RV industry, demonstrates our confidence in Coachmen 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 RV 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 Coachmen production and assists in maintaining strict compliance with installation and safety standards for those systems. Similar periodic inspections are made by representatives of the Canadian Standards Association (CSA) and various states. You, the owner, must 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 — Coachmen recommends that warranty service be performed by the authorized dealer from whom you purchased your RV 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 Coachmen warranty will be performed by any authorized Coachmen dealer in the United States or Canada. Whenever possible, make an appointment to avoid unnecessary delays.

Always carry your Owner Registration Card, which must be presented to obtain warranty service (carry your Temporary Owner Registration until you receive the plastic card from Coachmen). The card is proof of purchase and provides the date of retail sale, which are necessary to determine warrantability. Subsequent owners covered under terms of the warranty will be provided an Owner Registration Card for the unexpired term of the warranty. If you cannot locate an authorized dealer, contact Coachmen Service, P.O. Box 1000, Middlebury, Indiana, 46540, telephone 219/825-8239.



OWNER REGISTRATION CARD

Warranty Period — The warranty period shall begin on the date the recreational vehicle is delivered to the first retail purchaser.

Who Is Covered — The first retail purchaser and subsequent owners during the unexpired term of the warranty, provided terms of the warranty are met.

What Is Covered — Coachmen warrants to owners that an authorized Coachmen dealer or Coachmen Service Center 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 — The Coachmen warranty does not cover the motor home chassis, tires, tubes, batteries or optional 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. 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 motor home chassis, tires, tubes, batteries, and optional generators, which are not covered by the Coachmen RV Limited Warranty. If service or parts are required for these products, 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.

OWNER RELATIONS

Owner's 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 Coachmen 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 Coachmen Owner Relations Department, where we will make every effort possible to provide an agreeable solution. In most instances, we will eventually refer you back to the local dealer with our recommendations.

Write or telephone Owner Relations at:

Coachmen Service
P.O. Box 1000
Middlebury, Indiana 46540
Telephone: 219/825-8239
Attn: Owner Relations Department

EMERGENCY CONTACTS

DOCTOR	NAME	_____	NAME	_____
	ADDRESS	_____	ADDRESS	_____
	PHONE	(AC)	PHONE	(AC)
RELATIVE	NAME	_____	NAME	_____
	ADDRESS	_____	ADDRESS	_____
	PHONE	(AC)	PHONE	(AC)
NEIGHBOR	NAME	_____	NAME	_____
	ADDRESS	_____	ADDRESS	_____
	PHONE	(AC)	PHONE	(AC)
FRIEND	NAME	_____	NAME	_____
	ADDRESS	_____	ADDRESS	_____
	PHONE	(AC)	PHONE	(AC)
POLICE	PHONE	(AC)	PHONE	(AC)
FIRE	PHONE	(AC)	PHONE	(AC)
INSURANCE AGENT	NAME	_____	NAME	_____
	ADDRESS	_____	ADDRESS	_____
	PHONE	(AC)	PHONE	(AC)

TRAVEL RECORD

[illegible]

TRAVEL RECORD

[illegible]

MAINTENANCE RECORD

[illegible]

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 our identification requirement. Depending on your unit, certain items listed below may not 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 cabinet doors.

EQUIPMENT	MANUFACTURER	MODEL DESIGNATOR	SERIAL NUMBER
Travel Trailer	COACHMEN		
Furnace			
Range and Oven			
Converter			
Refrigerator			
Water Pump			
Water Heater			
Roof Air Conditioner			
Radio			
Antenna			
Toilet			
Door Key			
Exterior Storage Compartment Keys			

SPECIFICATIONS

LIGHT BULBS

Interior 12 VDC	- #1141
Range Hood	- 25 W, 12VDC
Turn, Tail & Stop	- #1157
Backup	- #1156
License Plate	- #67
Clearance, Grab Handle	- #67
Patio	- #93

MISCELLANEOUS — See the advertising brochure for the exterior dimensions, weight ratings and wheel/tire ratings which pertain to your unit.

COLOR CODE FOR PIGTAIL

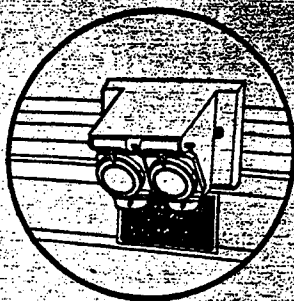
White	- Common to Ground
Red	- Stop & Left Turn
Brown	- Stop & Right Turn
Green	- Tail, Running & License Plate
Blue	- Electric Brake
Yellow	- Backup
Black	- Converter/Interior

WATER PUMP FUSE

15 Amp. Slo Blo

COACHMEN TRAVEL TRAILER

EXTERIOR RECEPTACLES
FIGURE 6



RANGE HOOD VENT

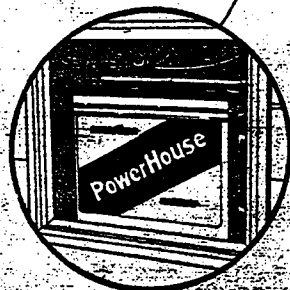
PORCH LIGHT

ASSIST HANDLE

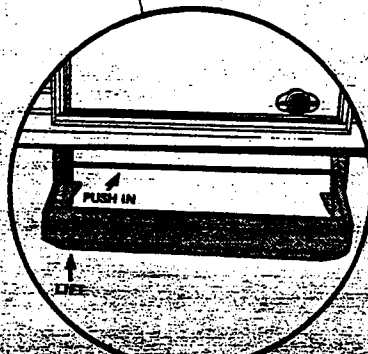
CLEARANCE LIGHTS

STORAGE
COMPARTMENT

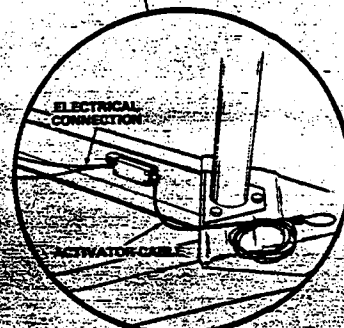
STEP LEVELING RAMP
FIGURE 5



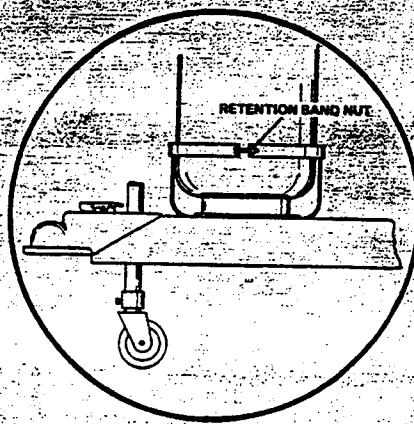
BATTERY
FIGURE 4



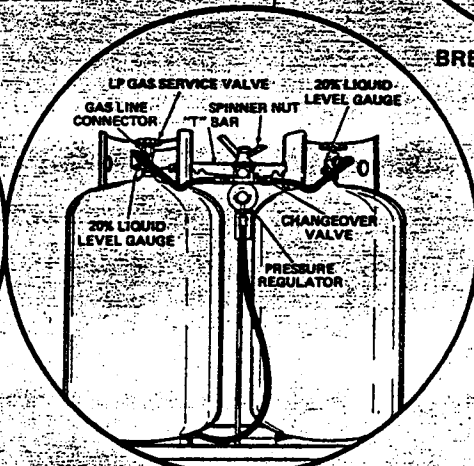
STEP
FIGURE 3



BREAKAWAY SWITCH
FIGURE 2



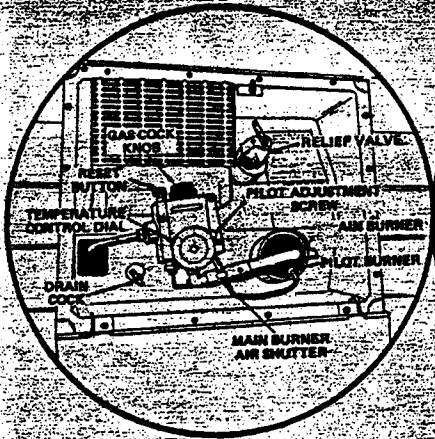
SINGLE LP GAS BOTTLE
FIGURE 17



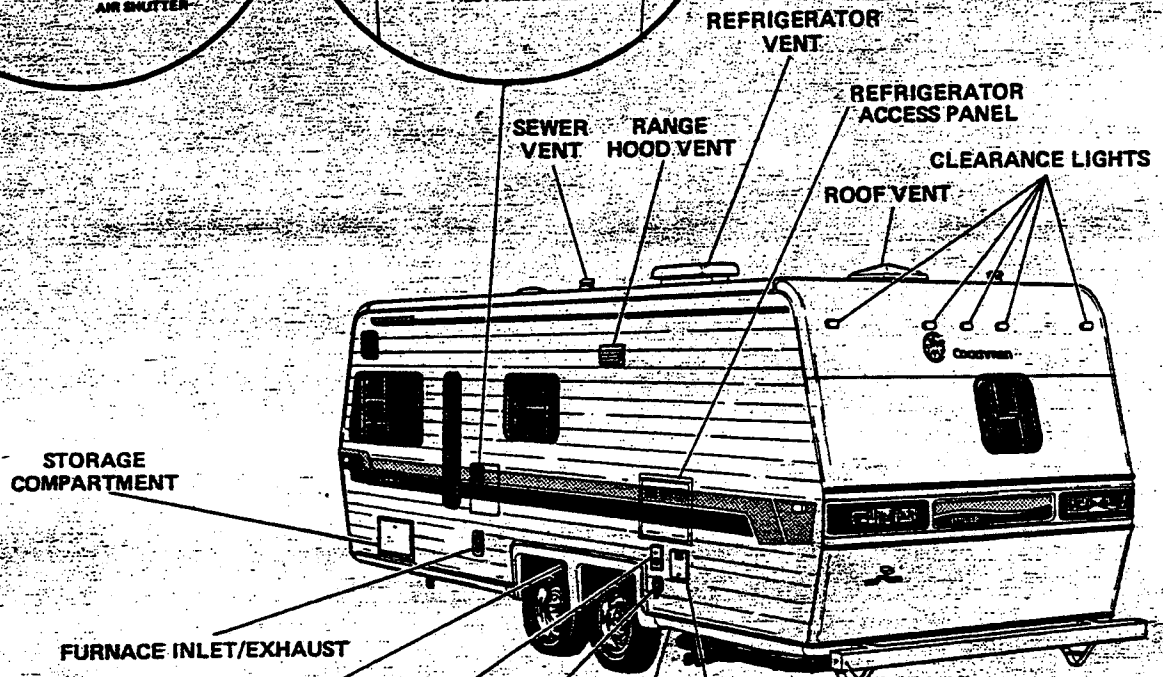
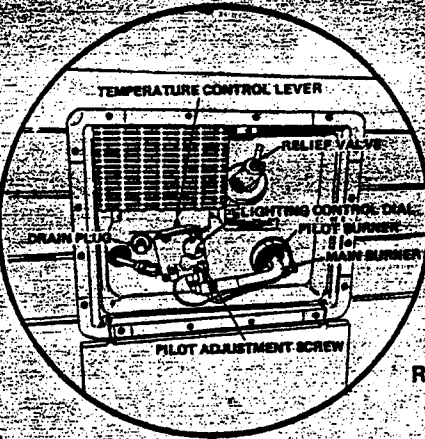
DUAL LP GAS BOTTLES
FIGURE 16

VEHICLES SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY; SOME ITEMS SHOWN ARE NOT AVAILABLE ON CERTAIN MODELS AND MAY BE OPTIONAL ON OTHERS.

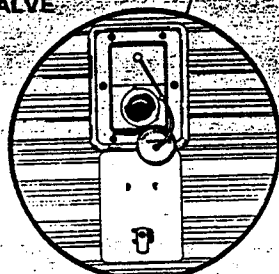
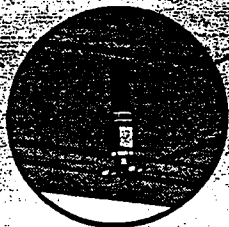
**WATER HEATER (ROBERTSHAW)
FIGURE 18**



**WATER HEATER (HYD)
FIGURE 19**

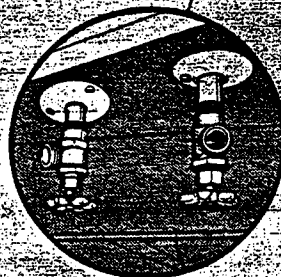


**WATER TANK DRAIN VALVE
FIGURE 13**

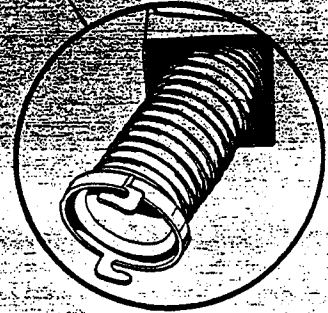


**GRAVITY WATER FILL
FIGURE 12**

**WATER LINE DRAIN VALVES
FIGURE 21**



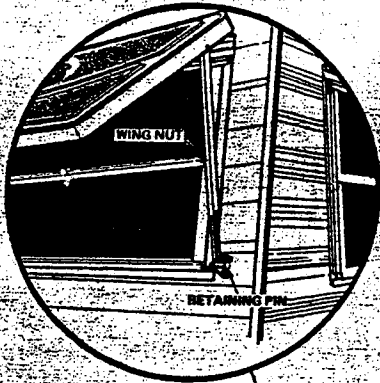
**SEWER DRAIN HOSE
FIGURE 14**



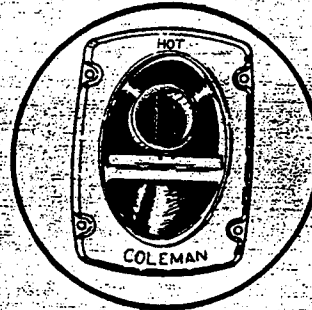
**SHORELINE
FIGURE 7**



AWNING
FIGURE 4

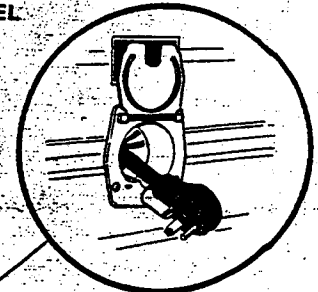


FURNACE INLET EXHAUST
FIGURE 20

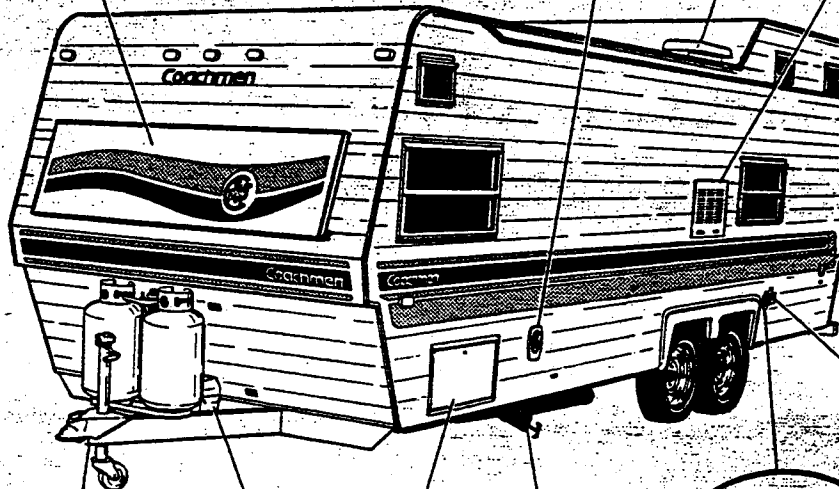


REFRIGERATOR
ACCESS PANEL

REFRIGERATOR
VENT

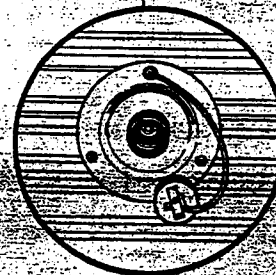


SHORELINE
FIGURE 8

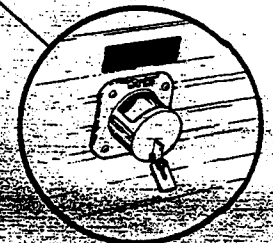


BATTERY
FIGURE 10

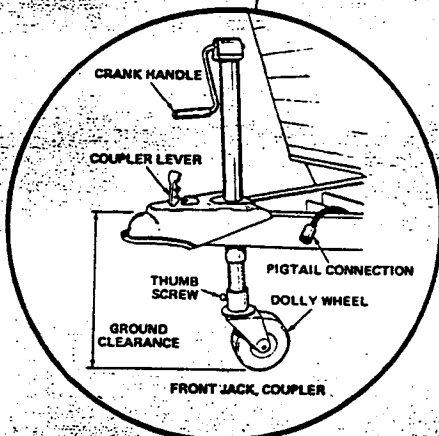
STORAGE
COMPARTMENT



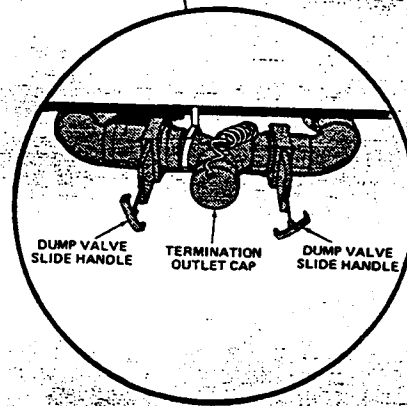
CITY WATER FILL
FIGURE 11



CADET GRAVITY
WATER FILL
FIGURE 12



FRONT JACK
FIGURE 1



TERMINATION OUTLET
FIGURE 15

YOU'VE CHOSEN COACHMEN ALL-AROUND VALUE!

As a new Coachmen owner, you've made a sensible choice among recreational vehicles. Your Coachmen is built with care and craftsmanship, and your choice of Coachmen is backed by . . .

- Coachmen Industries, Inc., the world's largest full-line manufacturer of recreational vehicles.
- A coast-to-coast network of happy-to-serve-you dealers.
- Coachmen's famous "Buck-Stopper" customer service. Your Owner Registration Card is your ticket to fast, dependable, one-stop service nationwide and in Canada.
- The International Coachmen Caravan Owner's Club, to bring you the most pleasure in owning an RV.
- Traditional high trade-in value for any recreational vehicle built by Coachmen!

COACHMEN — AMERICA'S #1 SELLING NAME IN RV'S.



Coachmen
RECREATIONAL VEHICLES

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