

CHINOOK



OWNERS MANUAL
2000

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SERVICE

Service is important to you..., and it is equally important to us. When you buy a Chinook, you can expect years of carefree service with regular but minimal maintenance. Our reputation has been built on that premise.

DOUBLE SERVICE BACKUP

Your Chinook dealer's service department will promptly handle any operational difficulty you may have with your motorhome. If such a problem is not resolved to your complete satisfaction, please take these steps:

1. Discuss the problem with the general manager or owner of your dealership. Give him the opportunity to work with his service crew in solving it.
2. If the difficulty cannot be resolved to your satisfaction by your local dealer, contact the service manager at the Chinook factory for assistance by calling:

1-800-552-8886

This double service backup is your best assurance that you have made the right decision in choosing a Chinook.

YOUR DEALER'S RESPONSIBILITIES

Your Chinook dealer has thoroughly inspected your motorhome, resetting the lighting, plumbing, water and heating systems for any malfunctions that may have occurred during shipment from the factory. All appliances are checked by the dealer at the time of purchase. He is obligated to explain and demonstrate the operation of your equipment and accessories, answer questions and make minor adjustments. For further instructions on operation, maintenance and warranties, please refer to the individual manuals or instruction sheets provided in your owner's packet.

If you should require service and replacement of defective equipment, make your request directly to the manufacturer of the appliance or accessory involved. In contacting any manufacturer, dealer or Chinook factory for service or information, be sure to include all the following:

1. Date of purchase along with stock or vehicle identification number.
2. Serial and model number and a complete description of the product.
3. Detailed explanation of the difficulty you are having.

Replacement parts should be purchased through the manufacturer or supplier or through your local dealer or supply store. If you have difficulty obtaining parts or service, contact the Chinook factory for assistance.

SERVICE

REGISTER YOUR WARRANTY TODAY!

Your first responsibility at the time of delivery is to register your warranty, so mail in your completed warranty registration card today. Only by filling out and submitting your registration card can you be assured of the guarantees it provides. This card is for your protection as a consumer; **use it now!**

Remember, warranties do not cover normal maintenance service or adjustments which may become necessary through normal extended use. That is why, after you have met your first obligation by submitting your warranty card, you must be prepared for an on-going responsibility: preventive maintenance.

You have just bought the finest mini-motorhome in the world, and we want you to enjoy every mile of it. All you have to do is rely on the tips and recommendations offered on the following pages.

SHELL WARRANTY:

Our unique fiberglass, one piece molded shell is covered by a lifetime warranty to the original owner. Loss of time, inconvenience, loss of use of Motorhome, towing charges, rental cars or other consequential damages are not covered by this warranty.

WHAT IS COVERED:

FACTORY DEFECTS ONLY – Factory defects will be determined by the Chinook Engineering Department or an authorized representative of Chinook.

WHAT IS NOT COVERED:

1. GEL COAT FRACTURES
2. GEL COAT DISCOLORATION
3. ROCK CHIPS
4. COLLISION DAMAGE
5. VANDALISM
6. NATURAL DISASTER DAMAGE
7. FASTENER POINT DAMAGE FROM NON-FACTORY INSTALLED COMPONENTS

FLOOR PLANS & FEATURES

GENERAL

Your Chinook motorhome is a compact, yet versatile, recreational vehicle loaded with features designed for your comfort and convenience. To help you in locating and identifying these features, refer to the floor plans shown in Figures 9.1 through 9.3 in chapter 9. Note that, while only the dinette option is shown, all other components are identical among the three floor plan options (dinette, club and twin-bed). Also, many of the features shown are options (identified with an asterix) and may or may not be in your motorhome.

SYSTEMS MONITOR PANEL

At the press of a button you can determine the fluid levels in the fresh water tank, waste water holding tanks, and LP gas tank from the systems monitor panel located on the range hood (refer to the chapter on the waste water system for false tank readings). This panel also includes the monitoring of the charge level of the coach batteries.

APPLIANCES

Your motorhome is loaded with top-of-the-line, name brand appliances. Operating instructions and specifications for these appliances can be found in your owner's packet. Appliance specifications are also listed on a label located on the inside of the closet door.

COACH BATTERY SYSTEM

All models of the Chinook motorhome come with a state-of-the-art battery system that includes a Low Voltage Disconnect (LVD) and a "Smart" solenoid. With the LVD, accidental drainage of your coach batteries will be minimized, if not eliminated entirely. With the "Smart" solenoid, you will be able to charge your coach batteries as well as your vehicle battery, while eliminating the possibility of accidentally draining your vehicle battery through the coach batteries or vice-versa. Refer to chapter 4 on the electrical system for more information.

TOWING PACKAGE

A towing package is included as a standard feature on the Chinook Motor home (Rated @ 5000 lbs. with a 500 lb. Tongue weight). This includes the trailer hitch as well as tail light electrical hook-ups. The tail light electrical hook-ups can be found on the extreme rear of the driver's side frame rail (Figure 9.3 in chapter 9). Review the section "Loading and Towing" in the next chapter for safe towing procedures.

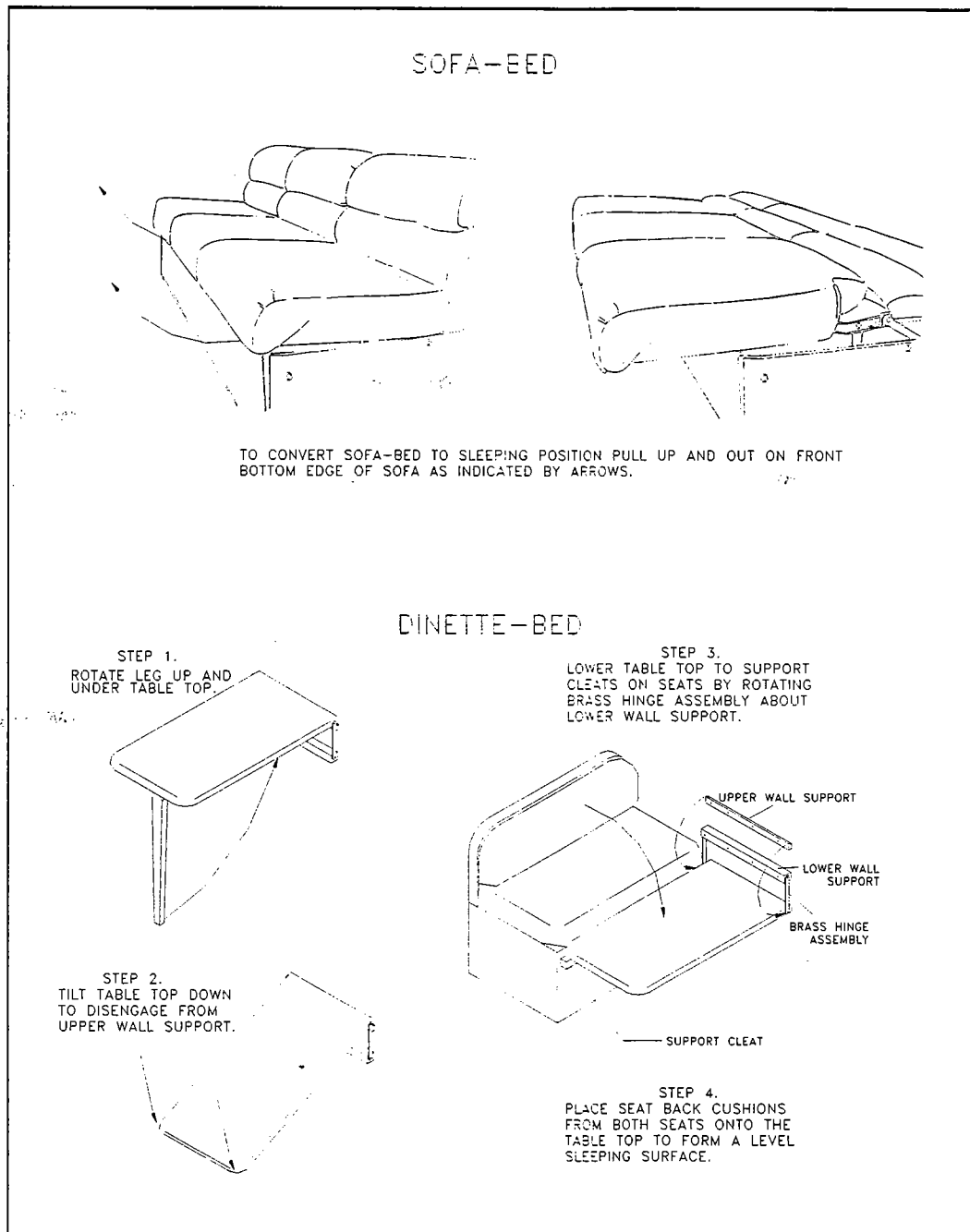
CLOCK

The clock in your motorhome is operated off a battery, which should last approximately one year. To reset the clock, first remove the clock from the cabinet by twisting it counter-clock-wise, and then turn adjustment knob on the back.

FLOOR PLANS & FEATURES

SLEEPING ACCOMMODATIONS

Sleeping accommodations vary from model type and floor plan and may even be unique to your motorhome, if you ordered it with special options. The sofa-bed, offered in the Club and Dinette floor plans, is folded out to the sleeping position as shown below. On Dinette floor plans, the sofa-bed forms a larger bed with the dinette seats when they are configured with the dinette table lowered as shown below.



VEHICLE OPERATION

PLANNING YOUR TRIP, BEING PREPARED

Planning your trip is an exciting time - and a time when you are likely to forget something important in your last minute rush to get ready.

Being properly prepared is the key to getting the most enjoyment from your motorhome, and that's why we are offering the following suggestions as a guide. Review them before starting out, refer to them when you are on the road, and then note the items you have forgotten so your next trip will be even more fun. Plan your trip carefully. Consult maps and guide books so you will be familiar with road conditions, roadside parks, rest areas and campsites. Be sure that all your equipment is serviced and ready for travel.

Check all of the following:

1. All fluids, including motorhome engine crankcase oil, transmission fluid, power steering fluid, radiator reservoir level, master cylinder brake fluid, electrolyte level of batteries, windshield water reservoir level.
2. Inspect wheel lugs for tightness.
3. Examine all tires for road damage. Inflate to the pressure recommended by the chassis manufacturer, and note that this pressure is for cold tires (see chassis operator's manual).
4. Check oil level in the generator power plant (if installed). Refer to the instructions and the maintenance manual provided by the generator manufacturer for pre-use service requirements. Make sure extra oil and other supplies are provided if the motorhome is to be used for extended periods.
5. Make certain your jack handle and lug wrench are properly stowed and in good working order.
6. Check to see that your 110-volt power cord is stowed in its compartment.
7. Be sure your fire extinguisher is secured and easily accessible.
8. Check to see that such accessories as the plastic sewer hose with fittings and a water supply hose (a garden hose approved for 125 psi service is adequate) are on board.
9. Fill water tank, if required (see section on Chinook water system).
10. Make sure drain line cap and holding tank knife valves are closed and secured.
11. Check all stop lights, running lights and other safety items.
12. Put your Chinook motorhome items in "travel" condition. This means following such common-sense procedures as securing any loose items that could shift while you are traveling. For example, secure refrigerator contents- place lids on containers of liquids - and secure locking latch on refrigerator door. Be sure cabinet contents are secured and doors are tightly closed. Close and lock all exterior doors and windows.
13. Always carry spare fuses of every size used in your vehicle.
14. Adjust side view mirrors for maximum visibility.
15. Fill the fuel tank, using only the fuel recommended in the chassis operator's manual.
16. Fill the LP-gas tank if required.
17. Ensure that the antenna and/or satellite dish is retracted to the travel position.

WARNING! ALWAYS EXTINGUISH PILOT LIGHTS AND OPEN FLAMES ON APPLIANCES BEFORE FILLING YOUR GASOLINE OR LPG TANK.

VEHICLE OPERATION

LOADING AND TOWING

When loading up your motorhome it is important to observe its various weight limitations to ensure that it handles safely on the road. This includes not only the cargo in the motorhome itself but also any vehicle or trailer that is towed. You should familiarize yourself with the following weight limitations and ensure that they are not exceeded:

GVWR (Gross Vehicle Weight Rating) - The maximum permissible weight of this fully loaded motorhome. The GVWR is equal to or greater than the sum of the Unloaded Vehicle Weight plus the Cargo Carrying Capacity.

GAWR (Gross Axle Weight Rating) - The maximum permissible weight for the front and rear axles. There is a separate GAWR for the front and rear axles.

UVW (Unloaded Vehicle Weight) - The weight of this motorhome as built at the factory with full fuel, engine oil, and coolants. The UVW does not include cargo, fresh water, LP gas, occupants, or dealer installed accessories.

CCC (Cargo Carrying Capacity) - Equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water heater), full LP gas weight and SCWR.

GCWR (Gross Combination Weight Rating) means the value specified by the motorhome manufacturer as the maximum allowable loaded weight of this motorhome with its towed trailer or towed vehicle.

SCWR (Sleeping Capacity Weight Rating) – Manufacturers designated number of sleeping positions multiplied by 154 pounds (70 kilograms)

The GVWR as well as the front and rear GAWR's are listed on a label located on the driver's side door post. The GVWR is also listed along with the UVW, CCC, GCWR, SCWR on a label located on the inside of the closet door. A sample of this label is shown below.

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

VEHICLE OPERATION

MOTORHOME WEIGHT INFORMATION	
VIN OR SERIAL NUMBER _____	
GVWR (GROSS VEHICLE WEIGHT RATING) IS THE MAXIMUM PERMISSIBLE WEIGHT OF THIS FULLY LOADED MOTORHOME.	
UVW (UNLOADED VEHICLE WEIGHT) IS THE WEIGHT OF THIS MOTORHOME AS MANUFACTURED AT THE FACTORY WITH FULL FUEL, ENGINE OIL AND COOLANTS.	
SCWR (SLEEPING CAPACITY WEIGHT RATING) IS THE MANUFACTURER'S DESIGNATED NUMBER OF SLEEPING POSITIONS MULTIPLIED BY 154 POUNDS (70 KILOGRAMS).	
CCC (CARGO CARRYING CAPACITY) IS EQUAL TO GVWR MINUS EACH OF THE FOLLOWING: UVW, FULL FRESH (POTABLE) WATER WEIGHT (INCLUDING WATER HEATER), FULL LP GAS WEIGHT AND SCWR.	
CARGO CARRYING CAPACITY (CCC) COMPUTATION	
	POUNDS KILOGRAMS
GVWR _____	
MINUS UVW _____	
MINUS FRESH WATER WEIGHT OF _____ GALLONS @ 8.3 LB/GAL	
MINUS LP GAS WEIGHT OF _____ GALLONS @ 4.5 LB/GAL	
MINUS SCWR OF _____ PERSONS @ 154 LB/PERSON	
= CCC FOR THIS MOTORHOME *	
* DEALER INSTALLED EQUIPMENT AND TOWED VEHICLE TONGUE WEIGHT WILL REDUCE CCC.	
CONSULT OWNER MANUAL(S) FOR SPECIFIC WEIGHING INSTRUCTIONS AND TOWING GUIDELINES. CD-126	

WARNING: Exceeding the cargo weight capacities of your motorhome can cause undesirable handling characteristics and may create a safety hazard. If you modify your motorhome by adding racks not supplied by the manufacturer your warranty may become invalid.

Just as care should be taken to prevent unsafe loading of the motorhome itself, care should be taken to prevent unsafe towing of trailers. The vehicle owner's manual provided by Ford should be consulted for guidelines on safe towing.

WARNING: Exceeding the tongue weight capacity of the trailer hitch can cause undesirable handling characteristics and may create a safety hazard.

If you are in doubt about the load you are carrying, weigh your vehicle (fully loaded with fluids, passengers, cargo, and any vehicle to be towed) at a public scale. An excellent practice when loading your motorhome for a trip is to store heavy articles low and light articles high. In this way you will improve the road handling and stability of your vehicle.

Another reason you should check vehicle weight periodically is to obtain optimum mileage from your tires. You will also find that handling improves when you are within prescribed weight capacities.

VEHICLE OPERATION

STARTING UP AND READY TO LEAVE

With your preparation and final checkouts completed, you're ready to leave. However, note the following before leaving:

1. When starting, warming up and operating your engine, you'll get the best results and the performance you want by following the instructions in your chassis operator's manual.
2. Seat belts are a vital safety feature in your Chinook motorhome. All seat belts should be fastened while your motorhome is in motion. **Seats not equipped with belts should not be occupied while the vehicle is in motion.**

AT LAST, YOU'RE ON THE ROAD!

Once you've become accustomed to the feel of the controls and can accurately gauge distances and the length and width of the vehicle, your Chinook motorhome is like driving your family car. It's easy to handle, maneuver and park. However, be cautious when maneuvering so you allow for the extra length and width of the motorhome. Check your side view mirrors frequently for approaching traffic from the rear.

When on the road, remember that higher speeds may result in a sharp increase in fuel consumption. Always allow for the extra height of your Chinook. It's approximately 9' without roof air conditioning and 9'10 1/2" with it. Avoid low overhead clearance areas such as low roofs at service stations. This is especially important as you drive with the overhead vent open or if you

have a roof storage pod or air conditioner. When parking, remember that the rear wheels are wider than the motorhome. Also, when parking on an incline, your front wheels should be turned into the curb in the direction of the roll as an aid to your parking brake.

VEHICLE OPERATION

Changing a Tire

See your chassis operator's manual for tire changing instructions. Your fully loaded motorhome is very heavy, and the lug nuts usually are set with a power torque wrench which makes them extremely difficult to remove. Obtain road service (see Ford's service number below) whenever possible, and only attempt to change tires yourself when it is an emergency situation.

FORD MOTOR HOME OWNERS SERVICE LOCATOR HOTLINE NUMBER

1-800-444-3311

This service provides 24-hour, 7-day-a-week assistance in contacting a dealership, arranging a service appointment and providing a dealership contact person name. This service can also assist in locating towing service, if needed.

WARNING: Loosening the rear lug nuts may release both outside and inside wheels. Do not attempt to remove lugs without having your jack in position to absorb the full weight of the motorhome.

Fire and Life Safety

Your motorhome is equipped with the following pieces of safety equipment that should be checked prior to your departure:

1. A properly rated fire extinguisher located just inside next to the coach door. Check your extinguisher on a regular basis for proper charge and make sure it is operable.
2. A CO (carbon monoxide) monitor located above the closet door.
3. An LP gas detector located at the bottom of the galley cabinet.
4. A smoke detector located on the ceiling near the bath/toilet cabinet.

Emergency Exits

The main coach entrance door is designated as the main emergency exit. The passenger door is designated for use as an alternate emergency exit. These exits should be kept unobstructed and free to open completely.

Emergency Start

In the event that the vehicle (chassis) battery is drained, you can tap into the coach batteries with the "Vehicle Boost Start" switch, located above the driver's seat to start the engine. Note that this switch needs to be depressed while simultaneously turning the ignition key on.

VEHICLE OPERATION

Auxiliary Lights (Optional)

Turning on driving lights is accomplished as follows:

1. To turn on driving lights, the switch should be in the "Driving Lights" position; this switch operates independently from the headlamps (Located in the overhead switch cluster).

CAUTION: Traffic rules in many states require that fog lights only be used when the headlamps are set in the low beam position and that driving lights only be used with the headlamps set in the high-beam position.

ELECTRICAL SYSTEM

GENERAL

The electrical system consists of 110V AC and 12V DC appliances supplied by power through a 45 amp converter/distribution panel. 110V power is available either through a 110V receptacle provided at an RV park or campsite ("shore power") or through the optional generator set. 12V power is available through the converter when plugged into shore power or from two coach batteries. A schematic of the coach power system is shown in Figure 9.4.

110V SYSTEM

Shore Power

The connection to 110V shore power is made through a power cord located in the "service center" on the driver's side towards the rear. To remove the cord, simply open the cover and pull the cord out to the required length (24' is available). When leaving a campsite, be sure that the cord is removed from the receptacle and stowed in its compartment. Failure to store it properly could result in extensive damage.

Note: Shore power connections are rated for 30 amp Service.

CAUTION: Cord cap adapters should not be used, because this could result in connecting the motorhome to an improperly rated source.

Generator Set

The optional generator set is located at the rear passenger side of the motorhome (see Figure 9.1). The manufacturer of this generator has provided complete operating instructions for the unit installed by Chinook. These instructions, contained in the owner information and warranty package, should be read completely before attempting to operate the generator. In addition to the switch provided on the front panel of the genset, all models have a generator start switch above the wardrobe door, and Concourse models have a second optional generator start switch above the driver's seat.

Breaker Panel

The 110V distribution panel, which is part of a combination converter/110V /12V panel, is located under the galley on all Chinook motorhome models. Breakers are used to protect the 110V electrical system. These circuit breakers do not reset automatically and must be turned off, then returned to the "On" position. Continued tripping of the breakers indicates an electrical problem that should be checked by a service technician. All duplex outlets are GFCI protected by the GFCI outlet located just inside the rear entry door. Depending on the model, the distribution panel will be as shown in Figure 9.5.

Automatic Transfer Switch

An automatic transfer switch, located within the converter/charger, senses which source of 110V power is in use (shore power or generator) and will switch to that source. However, if both the generator and shore power happen to be on at the same time, the generator will take priority. The owner's manual for the generator should be reviewed for further information.

ELECTRICAL SYSTEM

Appliances

110V power is used to run the following appliances and components (see 110V system schematic as shown in Figure 9.6).

1. Converter
2. Microwave
3. Refrigerator
4. Air Conditioner
5. GFI protected 110V Receptacles for portable appliances
6. Digital Satellite System (DSS) receiver (optional)
7. "Nu-Heat" floor heating pad (optional)

NOTE: The microwave and air conditioner (and optional DSS) will only operate on 110V, while the refrigerator will operate on 110V, 12V or LPG.

12V SYSTEM (COACH)

Most of the appliances in the Chinook motorhome run off of 12V power. As noted in the previous section, the two exceptions are the microwave and air conditioner, which will only run off of 110V power. 12V power is supplied through the power converter (running off of 110V shore power or the generator) or through two coach batteries. Some auxiliary 12V power is also supplied from the roof mounted solar panel.

Power Converter

The power converter, which is combined with the charger and fuse panel, is required to convert 110V power to 12V power. When shore power is available or the generator is turned on, 12V power is supplied through the power converter to all appliances including power to charge the coach batteries. As noted earlier, the power converter is located under the galley on all Chinook motorhome models.

Fuse Panel

All 12V circuits are protected with properly rated fuses or automatic reset circuit breakers. Three automatic circuit breakers are provided near the coach batteries. If either breaker trips because of a momentary surge, it will reset automatically after the overload is removed. If the breaker continues to trip, however, the system should be checked by a service technician to determine the cause.

The main 12V converter circuits are protected by fuses located inside the converter (see Figure 9.5).

ELECTRICAL SYSTEM

Coach Batteries

When no shore power is available, 12V power is supplied through two group 27 deep cycle coach batteries. To activate the system (whether or not the engine is running), the "Coach Batteries" switch must be in the "On" position. This switch is located in the switch cluster above the driver's seat.

The coach batteries can be charged through shore power, the optional generator, or through the vehicle alternator, when the engine is running. In order to run the 12V system off of the coach batteries or charge the batteries from 110V power, the "COACH BATTERIES" switch must be in the "ON" position. The green light labeled "IN USE/CHARGING" will be lit when the coach batteries are in use or being charged.

To ensure that no battery power is lost over a long storage period the "COACH BATTERIES" switch should be in the "STORE" position.

When the vehicle engine is running, the coach batteries will be charged through the alternator, regardless of whether the "COACH BATTERIES" switch is in the "ON" or "STORE" positions. Note, that the "Smart" solenoid (located under the hood) prevents the vehicle battery from being drained by the coach 12V DC system. However, should the vehicle battery become drained for some other reason, the vehicle can be started using power from the coach batteries by activating the "VEHICLE BOOST START" switch while simultaneously turning the ignition key on.

NOTE: If the "COACH BATTERIES" switch is in the "STORE" position when shore power is plugged in, an alarm will be activated and the red light labeled "SWITCH TO ON IF LIT" will be illuminated. In this situation, turn the switch to the "ON" position; the alarm will stop and the red light will turn off. Following this procedure will ensure that the coach batteries are charged when 110V AC power is available.

Low Voltage Disconnect

An important feature of the 12V system is the Low Voltage Disconnect (LVD) module. The LVD module, which is located inside the coach behind the driver's seat, serves the following two functions:

- 1) Warns occupants when the coach batteries are low.
- 2) Prevents the batteries from being completely drained, when they have accidentally been left on and no one is in the motorhome.

ELECTRICAL SYSTEM

As the coach batteries are being discharged, the LVD module senses the voltage level. When the voltage level reaches a preset value of 11.5 volts, the LVD activates an audible alarm. This alarm is a signal to the occupant that the LVD module will disconnect the coach batteries from the distribution panel within 60 seconds. The occupant has the choice of letting the LVD disconnect the batteries, or overriding the disconnect procedure by depressing the "COACH BATTERIES" switch momentarily to the "ON" position.

NOTE: Overriding the LVD will only provide an additional 60 seconds of 12V power, after which the LVD will again disconnect the coach batteries.

The coach batteries are located in a separate compartment below the water heater and just behind the driver's door. Because these batteries produce hydrogen gas when under a charge, the battery compartment has a vent at the top of the back wall. The compartment also has vent at the bottom in order to drain any liquid leaking from the batteries. Note that this compartment is for the storage of the coach batteries only; storage of other items in this compartment may block the vents or short out the batteries.

Hours of use between charging depends on the current draw (amps) of the appliances in use and the length of time they are used.

12V (AUTOMOTIVE)

The following optional 12V appliances are powered off of the vehicle electrical system:

1. Rear-view mirror
2. Power side mirrors
3. "Beverage Mate" cup holders
4. Driving lights or combination driving & fog lights.

The fuses for these items are located in a fuse block under the driver's side dash. Figure 9.7 shows the Concourse and Premier configurations. Note that pre-wired ignition hot and constant hot taps are available in the Concourse and pre-wired ignition hot taps are available in the Premier depending on the options installed.

**CAUTION: FUSES FOR THE PRE-WIRED IGNITION HOT AND
CONSTANT HOT TAPS SHOULD BE SIZED AS INDICATED.**

FRESH WATER SYSTEM

GENERAL

Fresh water is supplied either from the on-board fresh water tank or through a hook-up to municipal water when available at a campsite (see Figure 9.8).

FRESH WATER TANK

The fresh water tank is located under the sofa-bed (or twin bed) on the driver's side. In order to draw water from the fresh water tank, the water pump switch must be turned on. The water pump switch is on the monitor panel on the range hood. Once the switch is turned on, the water pump will cycle whenever a faucet is turned on or the toilet is flushed.

NOTE: The water pump cycles by sensing a drop in water pressure. Normally this occurs only when a faucet is opened or the toilet is flushed. If the water pump cycles at any other time, this may be an indication of a leak in the water lines, which should be checked immediately.

The fresh water tank is filled through the water tank fill port (largest opening) located next to the city water fill in the "service center" on the driver's side of the motorhome. The water pump switch should be turned off when the water system is not in use or hooked up to city water.

CITY WATER

A direct connection may be made to a city water pressure system through an inlet fitting in the "service center" on the driver's side of the motorhome. When using the city water hookup, it is not necessary to operate the water pump. The city water inlet fitting contains a pressure regulator limiting the system pressure to 125 psi. This prevents damage to the piping caused by excessively high supply pressures such as those encountered at some campsites.

WATER HEATER

All models are provided with a hot water heater located behind the driver's seat. As a standard, the water heater on Chinook motorhomes runs off of LP gas only (with electric ignition). The specifications of the water heater in your motorhome can be found in the operating instructions in your owner's packet.

If desired, water to the water heater can be by-passed by changing the positions of the two valves located in front of the water heater. The valve positions for flow through the water heater and for by-passing the water heater are shown in Figure 9.8.

OUTSIDE SHOWER

The outside shower is located in the "service center" on the driver's side. The shower head with flexible hose can be removed by opening the access panel located just above the left rear wheel well. In order to run the outside shower, two valves (one each for hot and cold) need to be properly positioned (see Figure 9.8).

FRESH WATER SYSTEM

DRAINING THE FRESH WATER SYSTEM

Periodically it is necessary to drain the fresh water system. This is done by opening the water tank drain petcock valve and the hot and cold line petcock valves located inside the coach as shown in Figure 9.8.

If your motorhome is used frequently, you can leave water in the tank. Keep it sweet by adding a teaspoonful of soda to every fourth or fifth tank of water. For long periods of time between use, drain the tank completely except for a teaspoonful of soda and two gallons of water. When you are ready to use the unit again, refill the tank and drain completely, then refill with fresh water.

WINTERIZING

To winterize the fresh water system, first drain the fresh water lines and tank. Next, add a recommended solution to prevent freezing in traps and other water filled cavities in the drainage system only.

WARNING: Do not use antifreezes other than those recommended for plastic pipe and recreational vehicles.

WATER PUMP SERVICING

If the water pump needs to be serviced or replaced, there is a three-way valve located between the water tank and the pump that should be shut off. This allows removal of the water pump without having to drain the water tank.

WASTE WATER SYSTEM

GENERAL

Two water holding tanks are installed on your motorhome. They are located under the coach to the rear of the driver's side as shown in Figures 9.3 and 9.10. The "gray" water waste tank holds waste water from the galley sink, shower sink and shower. The "black" water tank holds waste from the toilet.

DRAINING THE WASTE HOLDING TANKS

When your holding tanks require emptying, follow these steps:

1. Locate an outlet where they may be drained. This may be a gas station which has septic tank pumping facilities, a trailer park or a supply and service facility. Guidebooks contain these locations.
2. Park next to the inlet where you will dump the waste.
3. Remove the flexible hose from its storage compartment. Make sure the drain valves are closed, (T handles all the way in), remove the drainage cap, insert the hose connector and tighten.
4. Insert the opposite end of the hose into the pump tank inlet.
5. Open the valves by pulling the T handles all the way out.
6. When the tanks are empty, close the valves and secure them. The system is now completely drained and ready for use.
7. Utilize black tank flush each time tanks are emptied.(located at left rear)
8. Return the flexible sewer hose to its storage tube and secure the cap.

NOTE: A false reading from the monitor panel indicating that a holding tank is full even after it has been drained can occur (especially on the "black" water tank). This is usually caused by debris such as tissue paper laying across two or more probes inside the tank resulting in a short. This problem can be remedied by flushing the tank until all debris is cleared from the probes.

CLEANING

From time to time add a gallon or two of water containing liquid detergent into the holding tanks. The movement of the water and detergent when the vehicle is in motion will clean the tanks. Use of a holding tank deodorant prevents excessive odor from the tanks. Several products are generally available for this purpose.

WINTERIZING

After draining the waste water tanks, add a recommended solution to prevent freezing in traps and other water filled cavities in the drainage system only.

WARNING: Do not use antifreezes other than those recommended for plastic pipe and recreational vehicles.

LP GAS SYSTEM

GENERAL

LP-gas is supplied to your appliances from a storage tank located under the motorhome on the passenger side. The high pressure of the storage tank is reduced to appliance operating pressure by a two-stage regulator attached to the main supply valve. LP vapor passes through this regulator to a steel pipe manifold (see Figure 9.3) and is then distributed to LP appliances.

The following appliances operate on LP-gas:

1. Furnace
2. Water Heater
3. Range/Oven
4. Refrigerator (LP gas is an optional fuel source for the refrigerator, which can also run on 12V or 110V power).
5. Generator as supplied on Diesel models.

To assure safe, trouble-free operation, read the manufacturer operating instructions for each appliance completely before use. Each appliance manual can be found in the owner's packet provided with your motorhome.

SAFETY

To ensure safe operation of your LP appliances, you should be aware of the following warnings and warning labels:

**WARNING: LP-Gas containers shall not be placed or stored inside the vehicle.
LP-Gas containers are equipped with safety devices that relieve excessive
pressure by discharging gas to the atmosphere.**

The following warning label has been located in the cooking area to remind the user to provide an adequate supply of fresh air for combustion:

**WARNING: IT IS NOT SAFE TO USE COOKING
APPLIANCES FOR COMFORT HEATING**

Cooking appliances need fresh air for safe operation. Before operation:

- 1 Open the overhead vent or turn on the exhaust fan, and
2. Open a window.

Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle, and proper ventilation when using the cooking appliance(s) will avoid the danger of asphyxiation. It is especially important that cooking appliances not be used for comfort heating as the danger of asphyxiation is greater when the appliance is used for long periods of time.

LP GAS SYSTEM

Unlike natural gas used in homes, LP-gas is heavier than air. This means that if a leak should occur in the system the escaping gas will seek the lowest level in a contained area. Simply opening windows will not lessen the danger of explosion. If a leak is suspected, be sure to open all windows, doors, cupboards and drawers to allow any accumulated gas to flow to the exterior .

A warning label has been located near the LP-Gas container- This label reads:

**DO NOT FILL CONTAINER(S) TO MORE THAN
80 PERCENT OF CAPACITY**

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

WARNING: Do not use fuel-burning equipment, including wood and charcoal grills and stoves inside the motorhome. The use of this equipment inside the motorhome may cause fires or asphyxiation.

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

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

IF YOU SMELL GAS:

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

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

OPERATION AND MAINTENANCE

LP GAS SYSTEM

Below are some additional procedures you should follow in the operation and maintenance of the LPG system:

1. Familiarize yourself with the distinctive odor of LP-gas.
2. Check the entire system for possible leaks and missing or damaged parts before and after each trip, when filling the storage tank and any time you suspect trouble. Your Chinook motorhome is designed so all joints and connections in its LP-gas system are accessible for inspection. You should check these connections periodically by brushing a solution of water and liquid detergent on the fittings under pressure and watching for bubbles - an indication of escaping gas.

WARNING: Do not use a lighted match or similar device to detect lp-gas leaks.

3. If a leak is suspected, immediately turn off the main service valve on the tank and ask your LP-gas dealer to check the system.
4. In an emergency, the tank service valve must be readily accessible. Never attach a lock or device requiring a key, special tools or knowledge to open or close this valve.
5. When the LP-gas system is not in use, turn off the gas supply at the tank.
6. Never use a wrench to tighten the tank service valve. It is designed to be closed leak tight by hand. If a wrench is required to close or open the valve, it must be repaired or replaced.
7. Read and observe the tank manufacturer's instructions. They will explain the operation of all tank controls.
8. Do not tamper with LP-gas piping system, pressure regulator or appliances. Exercise caution when drilling holes or attaching objects to walls or floor area.
9. Be sure appliance, plumbing and outside vents are free of obstructions when operating any LP-gas appliance.
10. **The LP-gas tank should be filled only by qualified personnel at an lp-gas dealer service station. note that the lp-gas tanks are initially pressurized with air which must be bled off before the tank can be filled.**

MAINTENANCE

GENERAL MAINTENANCE

Exterior Care

Care for the exterior of your motorhome as you would for an automobile or boat finish. The Chinook surface may be cleaned using car shampoo, mild detergents or household cleaners - but be sure to check the list which follows. Strong soaps and abrasive cleaners should not be used. Dirt or grime that has been ground into surfaces is easily removed with a good quality rubbing or polishing compound. Rinse well after washing.

CAUTION: DO NOT USE GASOLINE OR PAINT THINNERS TO REMOVE TAR - THEY SOFTEN PAINT. USE A SPECIAL TAR REMOVER AND RINSE WELL WITH CLEAR WATER.

The fiberglass and enamel surfaces may be waxed at any time, require no special methods, and do not rust or corrode. You do not have to wax before traveling to the ocean. Only metal surfaces are subject to salt air corrosion, so waxing them before driving to the seashore will improve their resistance. Wash the surface before waxing with automotive or household waxes. A paste wax provides the best protection from abrasion and minor scratches because dirt slides readily from a well-waxed surface. The fiberglass becomes slightly dull or faded after long exposure to weather. You can easily restore it to its original luster and gloss by cleaning with a good rubbing compound and then waxing. The exterior color key trim should be cared for as described above. Do not use gasoline or solvents. Clean with mild detergents and then wax to restore luster.

Agents not recommended for cleaning the fiberglass include the following:
(Contact manufacturer before using any solution that is not listed)

1. Gasoline
2. Carbon tetrachloride
3. Lestoil
4. Pine-sol
5. Lysol
6. Abrasives (cleaners)
7. Paint thinners or solvents containing aromatic and halogenated hydro-carbons (ketones, benzene, toluene, perchlorethylene).

Interior Care

For wood surfaces the same care and cleaning methods used in your home should be used in your motorhome. Strong soaps and abrasives should not be used, but cleaners containing small amounts of ammonia may be suitable. Cabinet fronts need very little care. Treat them as you would any fine piece of furniture in your home. The shower stall of your unit is constructed of rugged fiberglass. The finish will not chip or crack, but it can be cut or scratched. In the event that it is cut or scratched, use a good grade of rubbing or polishing compound. The color is cast into the fiberglass and will not fade. Never use steel wool or abrasive cleaners on your fiberglass - you simply add serious scratches by doing so. Your floor is covered with top-grade carpeting. Maintain it exactly as you maintain your carpets at home. The upholstery in your Chinook motorhome is a fine quality material and should be treated accordingly.

MAINTENANCE

PREVENTIVE MAINTENANCE

Some Things to Check

Your privacy blinds will retain their color and beauty with occasional cleaning. You may order extra sets from your dealer. You should make a general maintenance inspection of your motorhome periodically. Non-drying caulking compounds, available in tubes, may be used to seal around moldings and seams. These compounds are compatible with fiberglass and aluminum surfaces. Epoxy-resin patch kits, also available in tube form, may be used to fill any small cracks or holes in the fiberglass. Patch and fiberglass care kits are available at most boat shops and marinas. It is recommended that all chassis bolts be checked once a year for tightness to prevent rattles resulting from vibration. If the exterior of your motorhome is punctured, immediately cover the puncture with a piece of waterproof material and tape. This will prevent moisture from getting through and damaging the interior. Keep the puncture patched in this manner until your dealer can repair it or refer you to a qualified service facility.

Roof Inspection

Take care of your roof. Sealing around stacks and vents should be accomplished using non-drying caulking compounds. Hot summer sun can dry out caulking, and pronounced temperature changes can cause varying degrees of expansion and contraction with various materials used in your roof and its components. These conditions may cause leaks, which is why you should inspect the sealants around the vents and other components regularly. By catching a problem in its early stages you can avoid serious repairs in the future.

SPECIFICATIONS & DRAWINGS

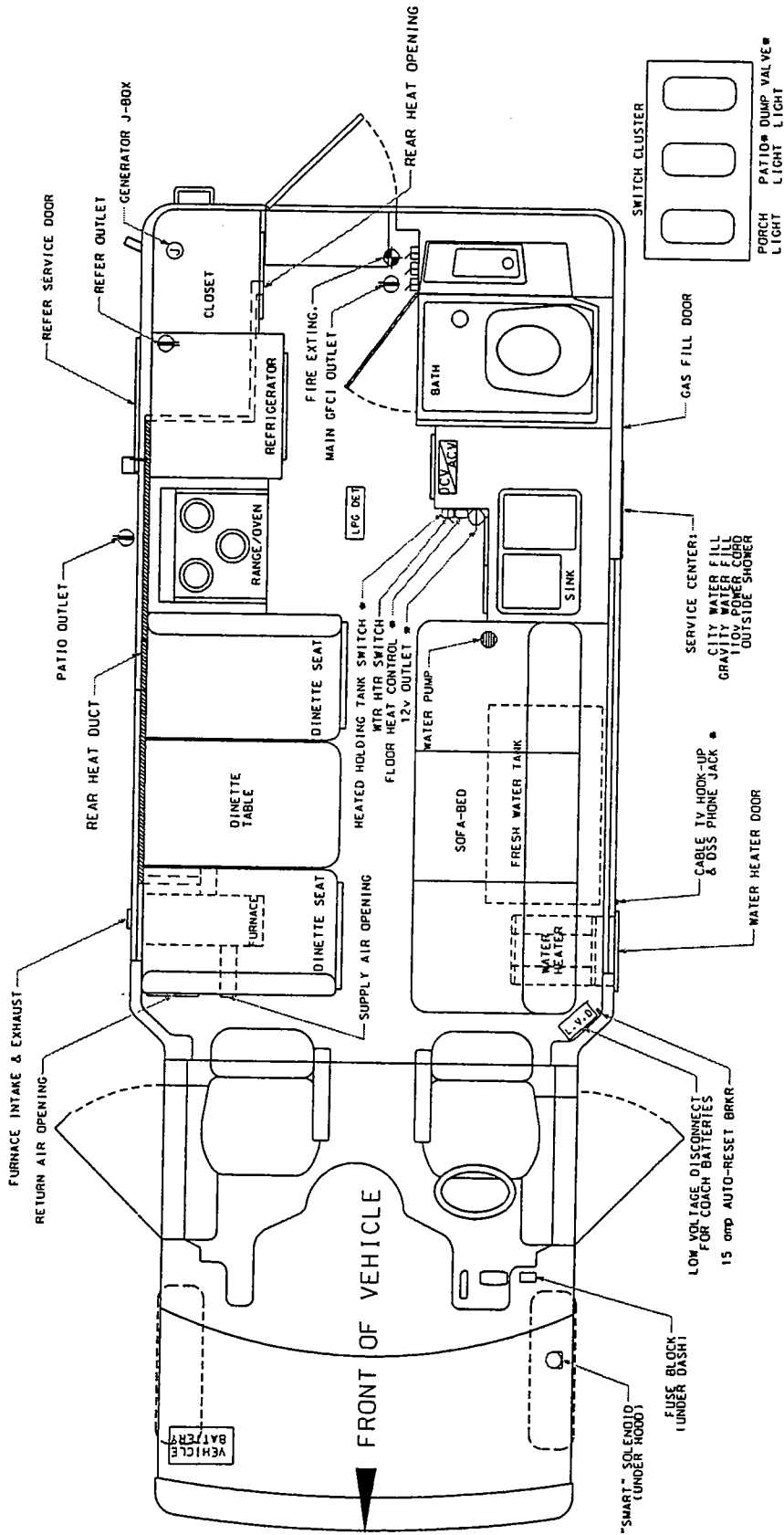
Specification	Premier LT	Concourse LT
Exterior Height	9' 10 1/2" (with AC)	9' 10 1/2" (with AC)
Interior Height	6" 3"	6" 3"
Exterior Width	7' 7 1/2"	7' 7 1/2"
Length	21' 4"	21' 4"
UVW ¹	8950 lb.	9100 lb.
GVWR ²	10,700 lb.	10,700 lb.
NCC ³	1,750 lb.	1,600 lb.
GCWR ⁴	18,500 lb.	18,500 lb.

1. Unloaded Vehicle Weight - The weight of this motorhome as built at the factory with full fuel, engine oil, and coolants. The UVW does not include cargo, fresh water, LP gas, occupants, or dealer installed accessories.
2. GVWR (Gross Vehicle Weight Rating) - The maximum permissible weight of the motorhome. The GVWR is equal to or greater than the sum of the Unloaded Vehicle Weight plus the Net Carrying Capacity.
3. NCC (Net Carrying Capacity) - The maximum, weight of all occupants including the driver, personal belongings, food, fresh water, LP gas, tools, tongue weight of towed vehicle, dealer installed accessories, etc., that can be carried by this motorhome. (NCC is equal to or less than GVWR minus UVW).
4. GCWR (Gross Combination Weight Rating) means the value specified by the motorhome manufacturer as the maximum allowable loaded weight of this motorhome with its towed trailer or towed vehicle.

	Premier	Concourse
GAS TANK	37 GAL	37 GAL
FRESH WATER TANK	32 GAL	32 GAL
WATER HEATER	6 GAL	6 GAL
GRAY WATER TANK	35 GAL	35 GAL
BLACK WATER TANK	15 GAL	15 GAL
REFRIGERATOR	4 CU FT	6 CU FT
FURNACE	12,000 BTU/HR	16,000 BTU/HR
RANGE	2-BURNER COOKTOP	3-BURNER COOKTOP
LIGHTING	12/110V SYSTEMS	12/110V SYSTEMS
CONVERTER	45 AMP	45 AMP
TWIN BED	72"x32"	72"x32"
SOFA SLEEPER	72"x50"	72"x50"
DINETTE	72"x84"	72"x84"

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FIGURE 9.1 CHINOOK MOTORHOME FLOOR PLAN ("DINETTE" SHOWN)

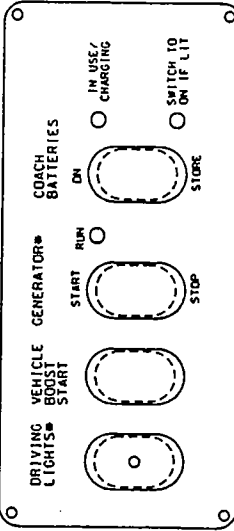
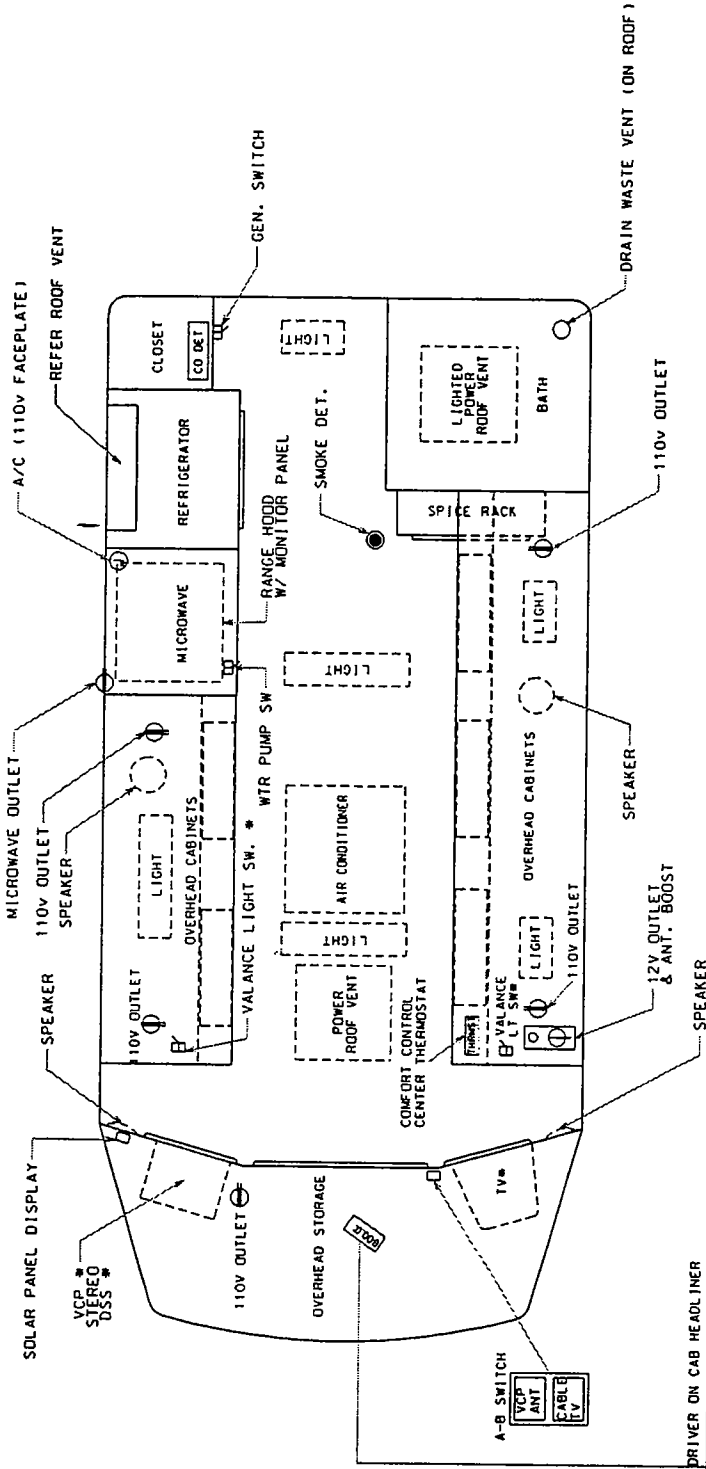


NOTE: ITEMS LISTED WITH AN ASTERIX (*) ARE OPTIONAL FEATURES.

TITLE: FLOORPLAN				DRAWING #:	
OPTIONS				+/- :	
MODEL: CONCOURSE 21RE				SCALE:	
				PART #:	
				VENDOR #:	
				PROTO #:	
				DATE DRAWN: 12/15/99	
				DRAWN BY: BD	
CHINOOK				PROPRIETARY INFORMATION:	
				THIS DRAWING IS THE PROPERTY OF CHINOOK MOTORHOMES, INC. IT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF THE MOTORHOME ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CHINOOK MOTORHOMES, INC.	
PCR #	UNIT #	REV. BY	DESCRIPTION	REVISION	DATE
N/A	N/A	BD	RTH, 2000 MODEL YEAR	BD	12/15/99

FIGURE 9.2 CHINOOK MOTORHOME FLOOR PLAN (OVERHEAD)

NOTE: ITEMS LISTED WITH AN ASTERIX (*) ARE OPTIONAL FEATURES.



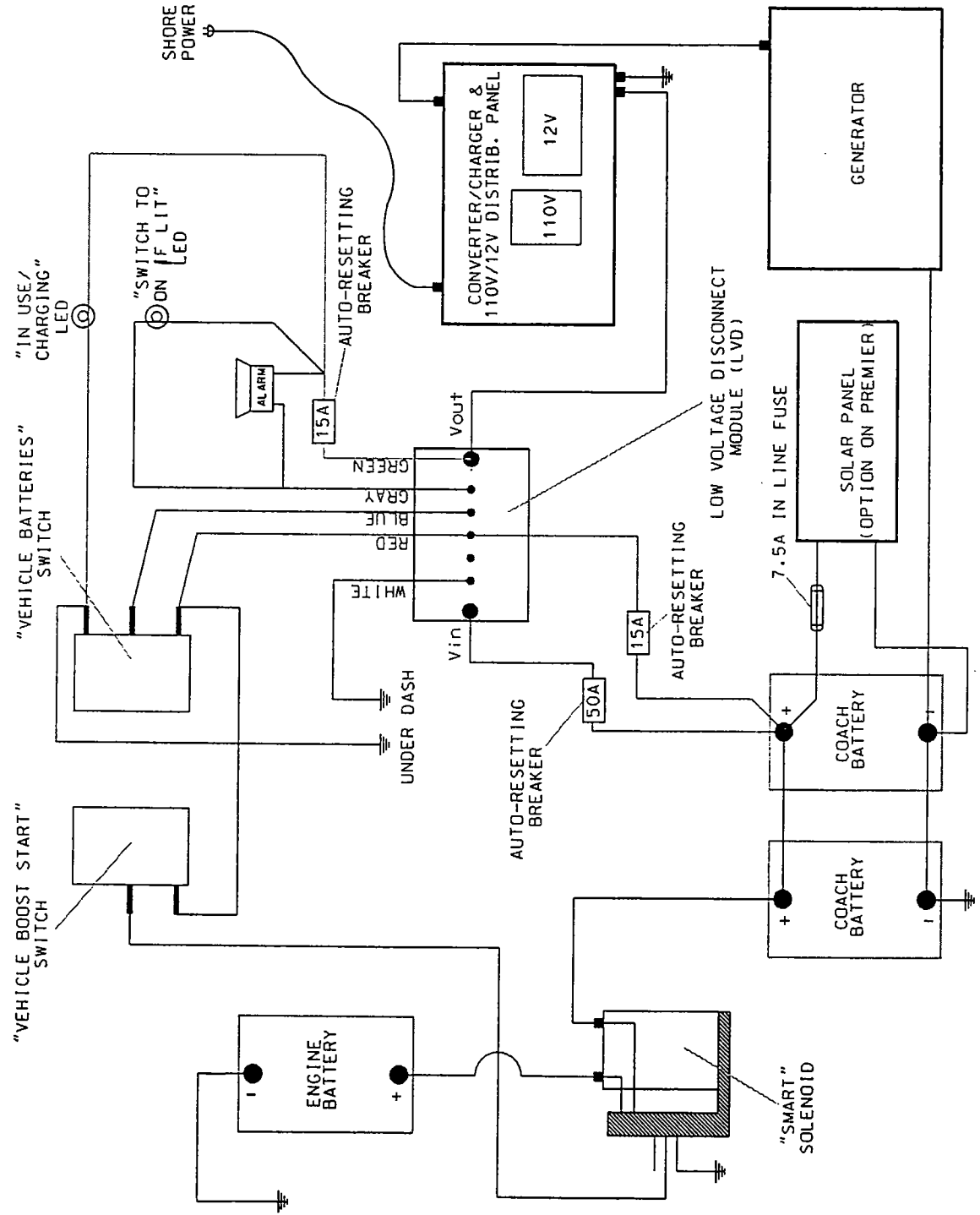
PCR #	UNIT #	REV. BY	DESCRIPTION	REVISION	DATE	TITLE:FLOORPLAN	DRAWING #:
N/A	N/A	N/A	ETH. 2000 MODEL YEAR	N/A	12/15/99	OVERHEAD OPTIONS	+/- :
						MODEL:CONCOURSE 21RE	SCALE:
							PART #:
							VENDOR #:
							VENDOR:
							PROTO #:
							DATE DRAWN:12/15/99
							DRAWN BY: BD

Diagram illustrating the chassis frame rails and various components connected to the ground system:

- GENERATOR DOOR
- GENERATOR
- CHASSIS FRAME RAILS
- GREY WATER TANK
- BLACK WATER TANK
- STORAGE
- PARTITION
- STORAGE DOOR
- GAS FILL
- COACH BATTERIES FRAME GROUND LUG
- CONNECTION TO COPPER FOR FURNACE
- CONNECTION TO COPPER FOR REGULATOR ON TANK
- CONNECTION TO COPPER FOR WATER HEATER
- CONNECTION TO COPPER FOR 50A & 15A AUTO RESET BREAKERS
- CONNECTION TO COPPER FOR REFER. AND RANGE
- CONNECTION TO COPPER FOR REFER. GENERATOR
- 12V CIRCUIT GROUND
- 110V BREAKER PANEL
- 12V FUSE PANEL
- 12V CIRCUIT GROUNDS
- DUMP VALVES
- TRAILER LIGHTS HOOK-UP
- FRAME GROUND LUGS
- MANCHESTER LPG TANK (18.8 GAL.)
- LPG BLACK PIPE FRAME GROUND LUGS

[illegible]

FIGURE 9.4 'CHINOOK' COACH ELECTRICAL SYSTEM



						TITLE: ELECTRICAL SYSTEM		DRAWING #:
								+/- :
							MODEL: CONCOURSE 2'IRE, PREMIER 2'IRE	SCALE:
								PART #:
							GHINOOK BY	VENDOR #:
								VENDOR:
							PROPRIETARY INFORMATION:	PROTO #:
							NOT COPY OR REPRODUCE, EXCEPT THAT WHICH IS LOANED, IS PROHIBITED WITHOUT WRITTEN PERMISSION FROM THE COMPANY OR INDIVIDUAL TO WHOM IT IS LOANED.	DATE DRAWN: 12/21/99
							400 EAST "N" STREET TOWNSHIP WASHINGTON 98001 AND/OR ITS OFFICERS.	DRAWN BY: BD
N/A	N/A	BD	RTN, 2000 MODEL YEAR	N/A	12/21/99			
PCR #	UNIT #	REV. BY	DESCRIPTION	REVISION	DATE			

FIGURE 9.5 'CHINOOK' DISTRIBUTION PANELS

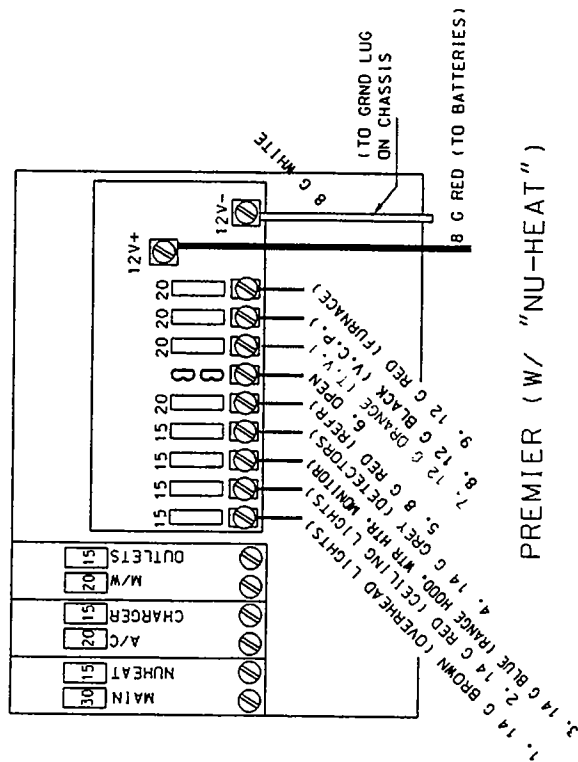
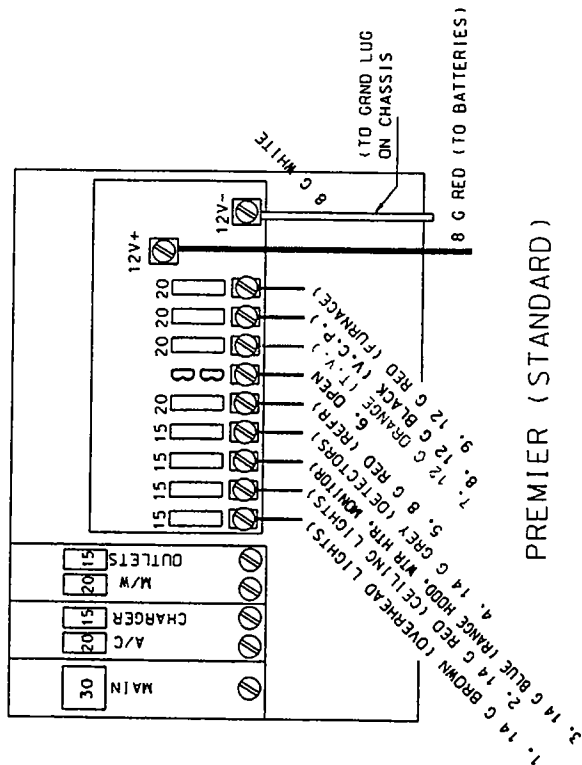
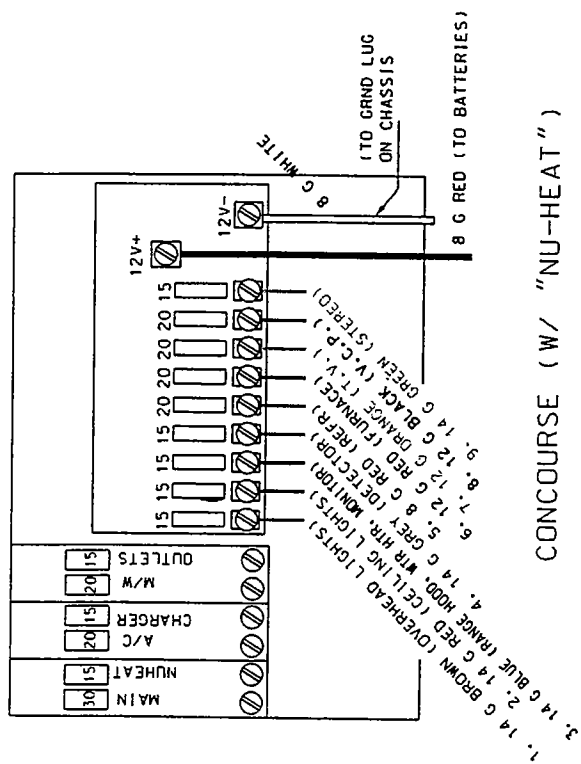
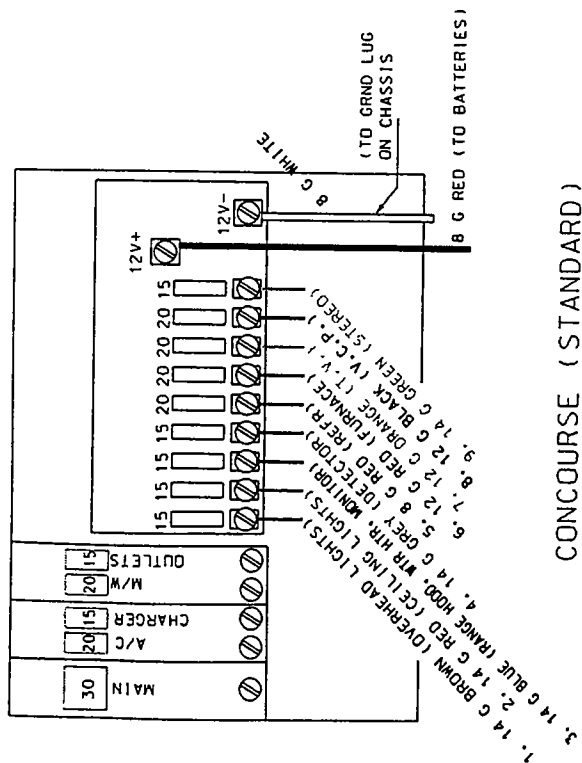
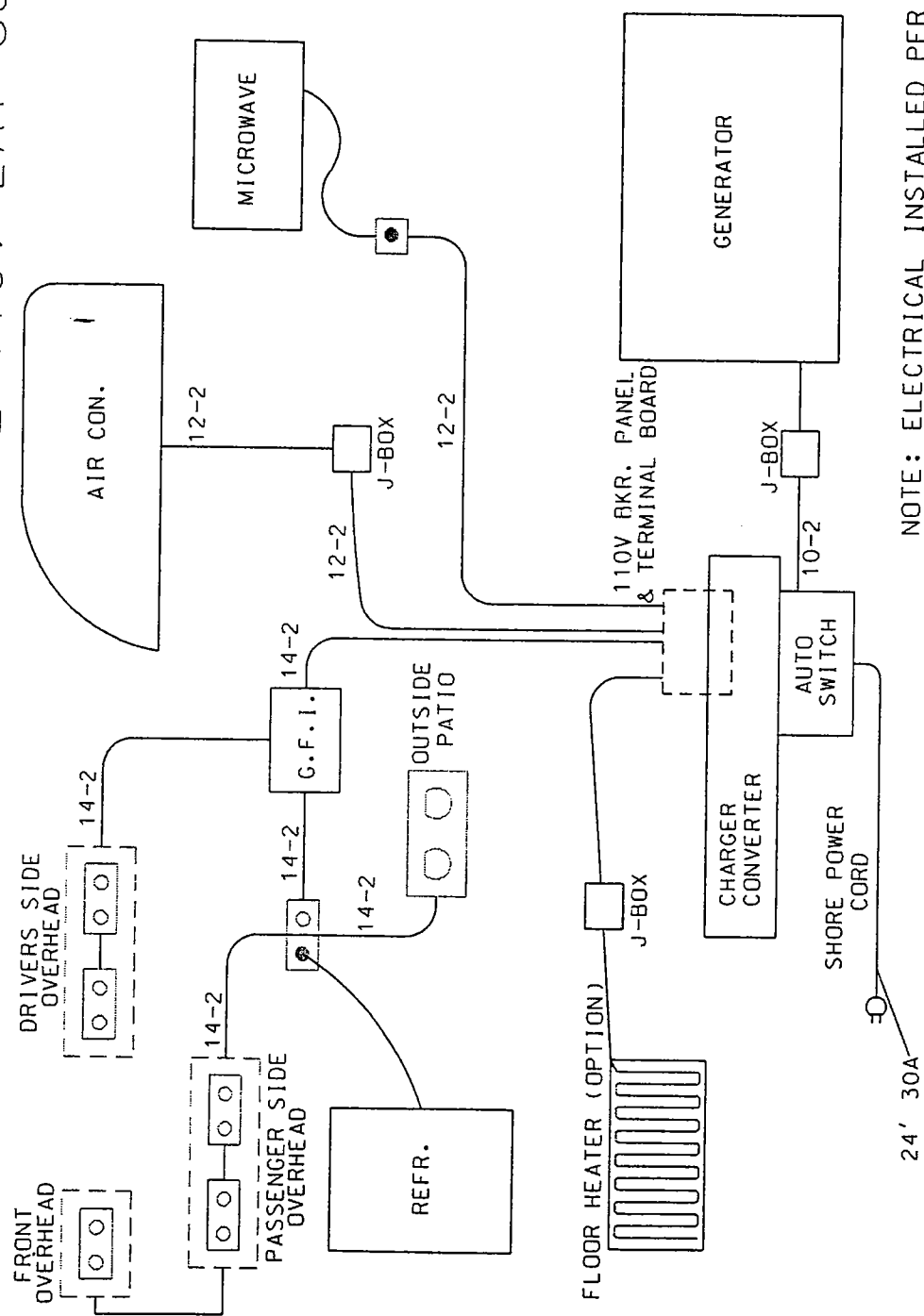
[illegible]

FIGURE 9.6 "CHINOOK" MOTORHOME 110V LAY-OUT



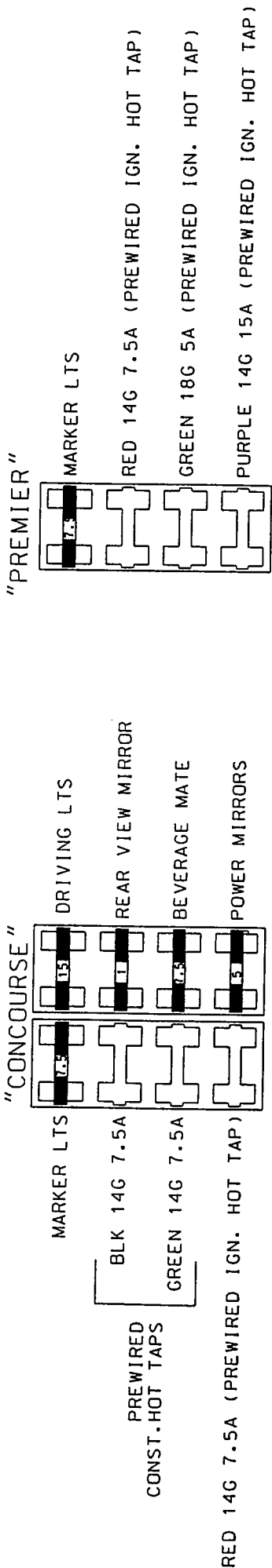
NOTE: ELECTRICAL INSTALLED PER NEC 1999.

TITLE: 110v LAY-OUT				DRAWING #:
MODEL: CONCOURSE 21RE, PREMIER 21RE				4/- :
				SCALE:
				PART #:
				VENDOR #:
				VENDOR:
				PROTO #:
				DATE DRAWN: 5/98
				DRAWN BY: REC

CHINOOK

PROPRIETARY INFORMATION:
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FIGURE 9.7 CHINOOK FUSE BLOCKS (UNDER DASH)



CAUTION: FUSES FOR THE IGN. HOT AND CONST. HOT TAPS SHOULD BE SIZED AS INDICATED.

NOTE: THE PREWIRED IGN. HOT AND CONST. HOT TAPS MAY NOT BE AVAILABLE FOR USE IF ADDITIONAL OPTIONAL APPLIANCES HAVE BEEN INSTALLED BY MANUFACTURER.

TITLE: FUSE BLOCK	
DRAWING #:	
SCALE:	
PART #:	
VENDOR #:	
PROTO #:	
DATE DRAWN: 12/27/99	
DRAWN BY: BD	

PCR #	N/A	BD	RTH. 2000 MODEL YEAR	DESCRIPTION	REVISION	DATE
CHINOOK						
PROPERTY INFORMATION:						
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TO INSIDE SHOWER

TO TOILET

SHUT OFF VALVE

GALLEY SINK

TO CITY FILL WITH CHECK VALVE

VENT

GRAVITY FILL

POTABLE WATER TANK

WATER PUMP WITH CHECK VALVE

WATER TANK DRAIN PETCOCK

WATER HEATER

STOP VALVES

WATER HEATER BY-PASS VALVES

FROM WATER HEATER

TO WATER HEATER

BY-PASS WATER HEATER

FLOW THROUGH WATER HEATER: BOTH VALVES IN EXTREME COUNTER-CLOCKWISE POSITIONS

BY-PASS WATER HEATER: BOTH VALVES IN EXTREME CLOCKWISE POSITIONS

ROTATE VALVE CLOCKWISE FOR "OFF" COUNTER-CLOCKWISE FOR "ON"

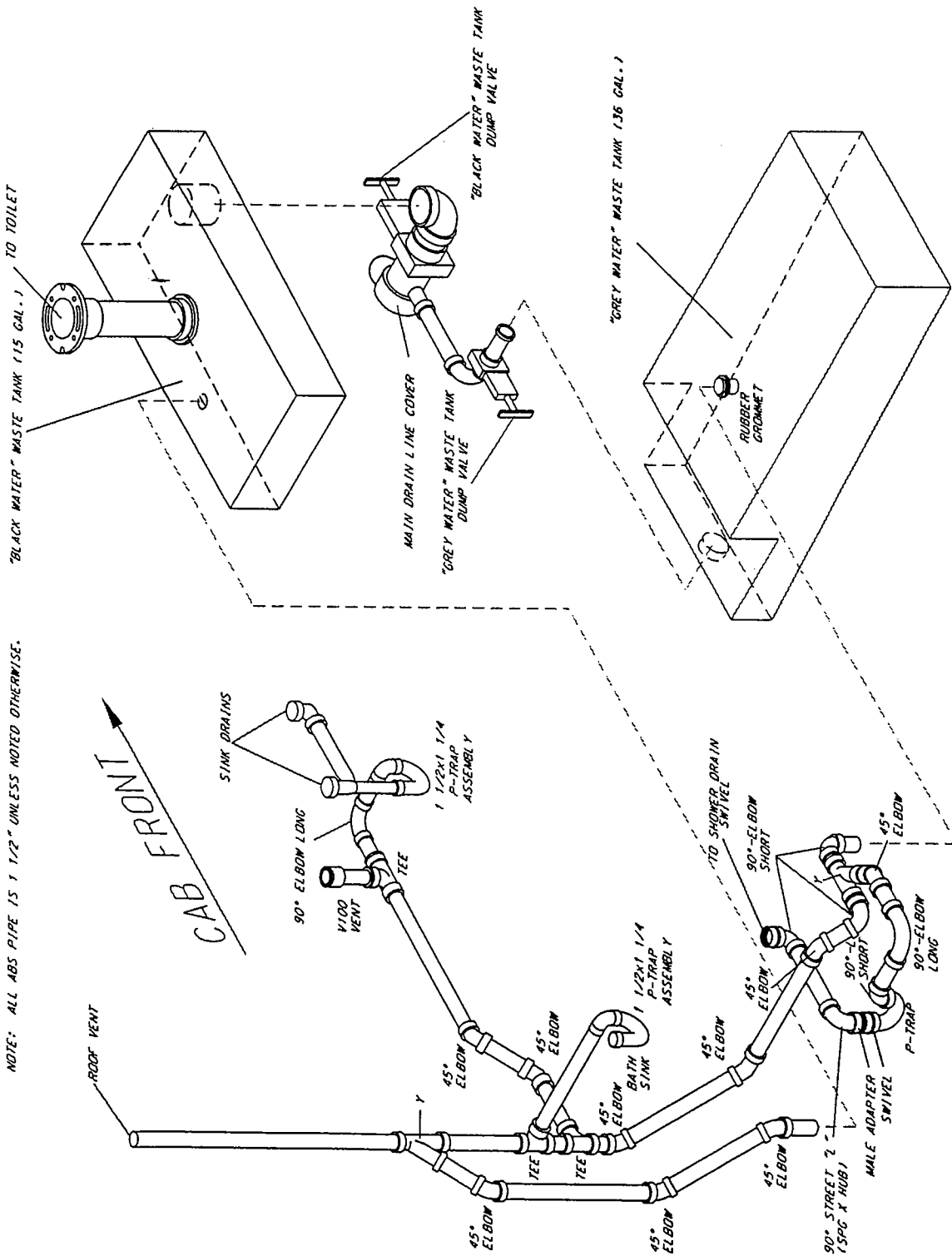
OUTSIDE SHOWER VALVES

NOTE: OUTSIDE SHOWER IS STANDARD ON CONOURSE OPTION ON PREMIER

					TITLE:FRESH WATER SYSTEM	DRAWING #:
					+/- :	
					MODEL :CONCOURSE 2 IRE , PREMIER 2 IRE	SCALE :
						PART #:
					VENDOR #:	
					RV CHINOOK	VENDOR #:
N/A	N/A	RD	RTH, 2000 MODEL YEAR		PROPRIETARY INFORMATION: ANY COPY OR REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF CHINAIR GROUP INCORPORATED IN NEW YORK CITY IS PROHIBITED. DATE EAST "M" TIME WASHINGTON MGMT AND/OR ITS OFFICES.	PROTO #:
PCR #	UNIT #	REV. BY	DESCRIPTION	REVISION	DATE	DATE DRAWN:12/23/99
						DRAWN BY: RD

FIGURE 9.9 'CHINOOK' WASTE WATER SYSTEM

NOTE: ALL ABS PIPE IS 1 1/2" UNLESS NOTED OTHERWISE.

[illegible]