



REDHAWK

2017 Customer Quick Guide



REDHAWK



WELCOME TO JAYCO

We at Jayco want to thank you for your purchase of the 2017 Redhawk and becoming part of the Jayco family – a family that is composed of Jayco employees and you. At www.jayco.com you will find a copy of the Jayco story that describes our rich history, values and commitment to you.

If you have owned a motorized RV manufactured by another company, you will find that your Redhawk was built to enable the creation of lifetime memories. The quality of your Redhawk begins with how it is built and ends with you, as the owner. For this reason, we are giving you this user-friendly Comprehensive Guide to facilitate the understanding and operation of your new Redhawk.

Taking delivery of your Redhawk begins your Jayco experience and our goal is for your delivery to set the stage for all the wonderful experiences to come. Our customer research suggests that new owners can be overwhelmed with all the information provided in a short period of time. For this reason, the Comprehensive Guide includes everything included in your walk-through plus much more.

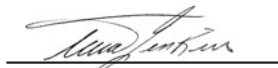
Your delivery walk-through will be geographical; that is, you will be shown the purpose of the various switches, controls and systems as you walk through the coach. The Comprehensive Guide is organized by how you will use all the components of your new coach.

The combination of both the “**what** and **how**” of all the systems and control switches will provide you with a great working knowledge of your Redhawk and how to use all its wonderful features.

Finally, please remember that you will never be alone – Jayco’s industry-leading customer service team is always with you and only a phone call away.

Again, thank you for your purchase and we, at Jayco, will do all we can to ensure that all your future adventures will be better than expected while traveling in your Redhawk. You have purchased one of a long line of Jayco products that have provided “generations of family fun.” In addition, your Redhawk is “the best value in its class.”

Please look over this Comprehensive Guide as it contains information we feel you will need to most quickly maximize the enjoyment of your new Redhawk. We wish you safe and happy travels!



Tadd Jenkins
President
Jayco Motorized
Division



ABOUT THIS GUIDE

This Guide Is For **YOU**

It is a demonstration of Jayco's commitment to make your ownership and use of your Redhawk an extraordinary experience.

It is meant to be both an introductory guide to support your initial walk-through as well as a long-term reference source.



The explanations in this guide apply to all Redhawk floor plans although the location of switches and systems may not exactly match your coach.

BEFORE WE BEGIN

ABOUT YOUR COACH

IDENTIFYING EXTERIOR
COMPONENTS

TYPES OF SWITCHES AND
CONTROLS

SOURCES OF POWER AND ENERGY

FRESH WATER SYSTEM

COOLING AND HEATING

STORAGE AND LOADING



TABLE OF CONTENTS

Before We Begin

- About Your Redhawk
 - The Sum of Two Parts 10
- Identifying Exterior Components 12
- Types of Switches and Controls 13
- Sources of Power and Energy
 - Types of Electrical Power 14
 - Sources of Electrical Power 15
 - Battery Power/Propane Energy 16
- Fresh Water System
 - Valves 17
 - Pump 18
- Heating and Cooling
 - Cooling 19
 - Heating 19
 - Ducts and Vents 20
 - Furnace 20
- Storage and Loading 21

Basic Operations

- Locking/Unlocking the Coach
 - Coach and Cab Locks 24
- Switches and Controls
 - Entry Switches 25
 - Control Panel 26
 - Overall Dash 27
 - Steering Wheel 27
 - Rearview Mirror, Door Locks and Windows 28
 - Driver Gauges 29
 - Headlights and Cockpit Lighting 30
- Preparing To Drive
 - Fueling and Propane 31
 - Checking Engine Fluids 32
 - Safe Driving 33
 - Filling the Fresh Water Tank 34

TABLE OF CONTENTS

Basic Operations - continued

- Preparing To Drive - continued
 - Driver Comfort 35
 - Starting the Engine 36
 - Using the Transmission 36
 - Rear Camera 37
 - Rearview Mirrors, Door Locks and Windows 38
 - Radio 39
 - Checklist 40
- While Driving
 - Warning Lights 41
 - Headlights 42
 - Cockpit Lighting 42
 - Heating and Air Conditioning 43
 - Cruise Control 43
 - Turn Signals, High Beam Headlights, Windshield Wipers and Washer 44
 - Turning and Tail Swing 45
- Safety Considerations
 - Fire Extinguisher 46
 - Carbon Monoxide/Propane Sensor 46
 - Smoke Detector 46
 - Emergency Exits 46
 - Ground Fault Circuit Interrupters (GFCI) 47
- Cold Weather Considerations
 - Tank Warming 48
 - Battery Boost 48

Using Your Coach

- Setting Up Camp
 - Overall Process 50
 - Leveling the Coach 51
 - Extending the Slideout Rooms 52

TABLE OF CONTENTS

Using Your Coach – continued

• Setting Up Camp – continued	
• Overall Process -- continues	
• Hooking Up The Sewer Line	53
• Hooking Up Electricity	54
• Hooking Up Water	55
• Monitoring Electricity and Tanks	56
• Black and Gray Water Tank Management	57
• Water Heater System	58
• Getting Comfortable	
• Awning	59
• Travel'R Awning Pitch Adjustment	
• Heating-Cooling	61
• Light Control and Shades	62
• Bathroom Facilities	
• Using the Toilet	63
• Vent Fan	64
• Watching Television	
• Televisions	65
• Broadcast (Over –the-Air) Television	66
• Cable Television	67
• Satellite TV	68
• Getting Ready For Bed	
• Dream Dinette	69
• Sofa Tri-Fold Bed	70
• Around the Kitchen	
• Norcold Refrigerator	71
• Microwave Oven	72
• Gas Cooktop	72
• Breaking Camp	
• Overall Process	73

TABLE OF CONTENTS

Beyond The Basics

• Electrical System	
• Electrical System Diagram	76
• Electrical System Introduction	78
• Generator Power	79
• Shore Power	80
• Battery Power	81
• 120 Volt Circuit Breakers And 12 Volt Fuses	81
• Inverter	82
• Converter	
• Plumbing System	
• Plumbing Flow Chart	83
• Changing the Fresh Water Filter	84
• Water Heater	85
• Connections and Valves	86
• Draining All The Water From The Coach	87
• Tank-less Water Heater	87
• Heaters With Tanks	89
• Winterizing Your Coach	
• Introduction	92
• Dishwasher	94
• Washing Machine	95

ABOUT YOUR COACH**The Sum of Two Parts****The Chassis: Everything under the floor**

- **Ford E450**

- 6.8 Liter Triton EFI V10 Engine
- TorqShift Automatic Overdrive



- **Chevy 4500**

- 6.0 Liter Vortec V8 Engine
- Hydra-Matic 6 Speed Transmission with Overdrive



- **Hands down, the best ride**

- JRide
- Rubber Isolation Body Mounts
- Computer Balanced Driveshaft
- Hellwig Helper Springs

- **Onan 4,000 watt MicroQuiet generator**

- **Safety**

- Hydraulic Brake Assist
- Third Brake Light

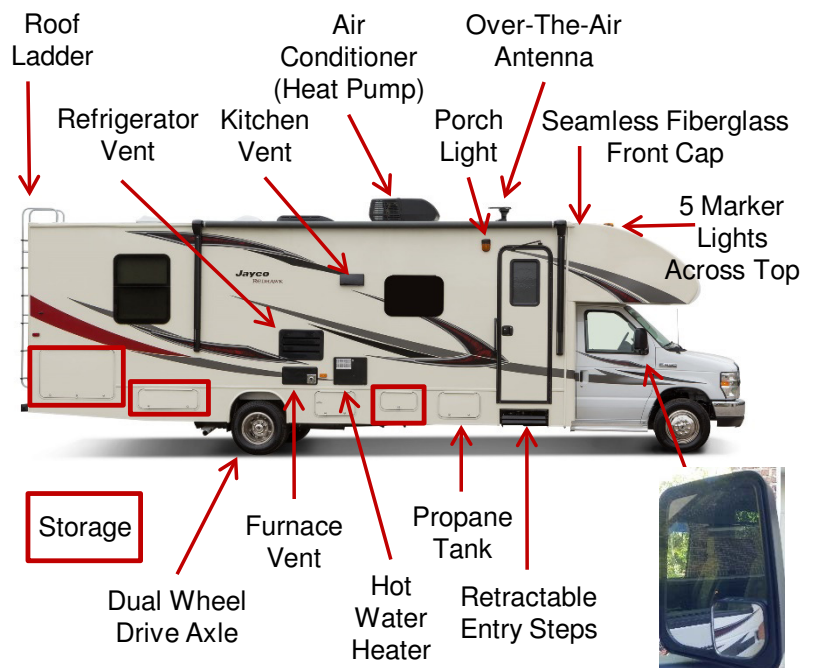
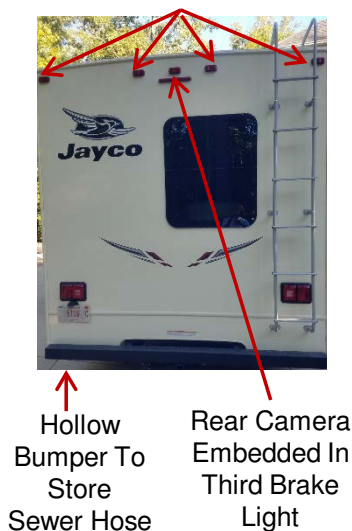
**The Living Quarters**

- Constructed by Jayco.
- Seamless one piece fiberglass cap.
- Premium amenities

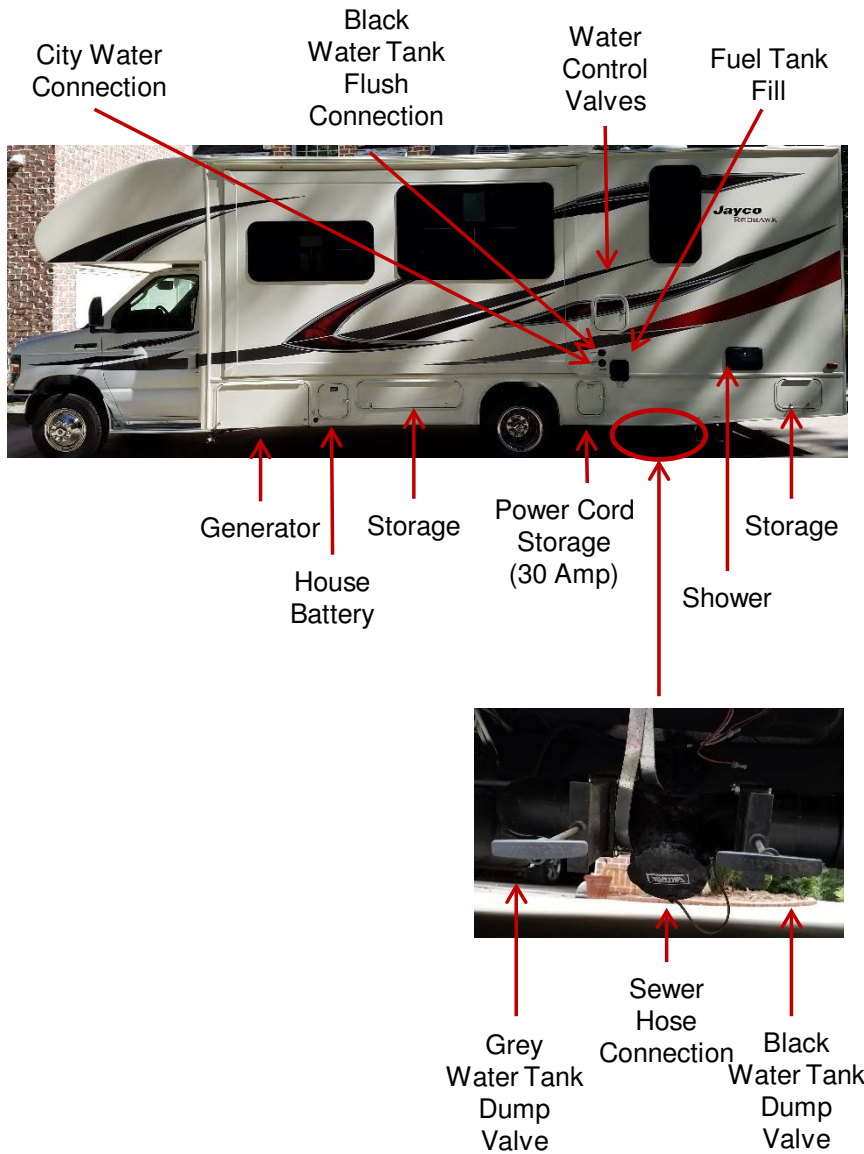
All with an industry leading two year warranty!

IDENTIFYING EXTERIOR COMPONENTS

Passenger Side

Marker Lights
(4 Across Back)Rear View Mirror
with Convex Blind
Spot MirrorFeatures

- One-piece seamless front cap
- 750-pound overhead bunk capacity
- Integrated electric step
- Integrated third brake light
- Seat belts in every position
- Frameless windows
- Multiple marker lights for increased visibility.

IDENTIFYING EXTERIOR COMPONENTS**Driver Side**

TYPES OF SWITCHES AND CONTROLSSmall Rocker
SwitchesLight
SwitchesLarge Rocker
SwitchesIndicator
LightsRotary
SwitchesPush
Buttons

These switches (explained throughout this Guide) were chosen to provide you the easiest way to control all the devices and systems in your coach. There are times when two different types of switches will be used to accomplish the same outcome – this is for your convenience and ease of use.

SOURCES OF POWER AND ENERGY

“Types” Of Electrical Power

There are two electrical systems in your coach: first, there is a 120 volt AC (alternating current) system that is used to run your major appliances (heat pumps, refrigerator, etc.); second, there is a 12 volt DC (direct current) system to power your lights, slides and other devices.

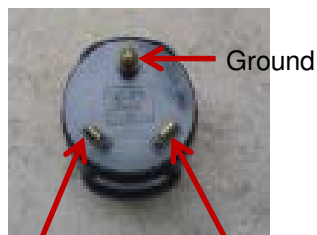
Basics of electricity

- Voltage is to electricity as pressure is to water. The higher the number, the greater the “pressure.”
- Amperage is to electricity as volume is to water. The higher the number, the more water flows through a given size pipe.
- Inverters *invert* 12 volt electricity to 120 volt electricity.
 - This function enables your battery to power select 120 volt appliances when you do not have 120 volt power available.
- Converters *convert* 120 volt AC electricity to 12 volt DC electricity.
 - This function enables your battery to be charged from the 120 volt system.
- Batteries are used for two functions and are part of the 12 volt system.:
 - The CHASSIS battery is primarily used to start the engine.
 - The HOUSE battery is used to provide power to the coach.

120 Volt System

- Your coach is designed for 120 volt 30 amp electric service.
 - There may be times when you will have to connect to 20 amp service. You will need to carry an adapter in order to do this – **you should purchase and always have a 30 to 20/15 amp adapter with you. Jayco does not provide this.**

Plug At End Of
Power Cord



Neutral Leg Power Leg

RV Park Pedestal Circuit
Breakers



SOURCES OF POWER AND ENERGY**“Types” Of Power****12 Volt System**

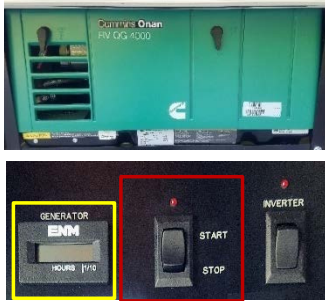
- The power to operate your lights, slides and other 12 volt devices comes directly from the 12 volt house battery. The battery, then, needs to be recharged so that it does not go “dead.” This is discussed in more detail later in the guide.
- To recharge the battery, there is a converter that converts 120 volts AC to 12 Volts DC. In addition, the alternator attached to the engine charges both the chassis battery and house battery.
- Part of maintaining your battery is keeping a minimal charge within it.

Sources Of Electrical Power**Shore Power**

Pedestal
Circuit
Breakers

50, 30, 20
and 15 amp
Receptacles

- Before plugging in, make sure the circuit breaker is turned off at the pedestal.
- Plug your power cord into the 30 amp receptacle.
- 30 amp plugs have 3 prongs
- Flip the circuit breaker to the ON position.
- The transfer switch and inverter may take a moment or two to respond.

Generator Power

- Your generator, when running, provides 30 amp service.
 - The generator can be switched on at the control panel. (Outlined in red.)
 - The amount of time the generator is used is shown on the hour meter. (Outlined in yellow.) The hours of run time contributes to the scheduling of service.
- The generator will stop when the fuel tank gets to $\frac{1}{4}$ full.

SOURCES OF POWER AND ENERGY**Sources Of Electrical Power****Battery Power**

- Your coach has a maintenance free battery on a slide out tray.
- The battery is located in the second from front driver side compartment. (See page 12.)

Propane Energy

Your coach is equipped with a 42 pound propane tank to provide energy for the operation of your furnace, stove, water heater, and refrigerator, if so desired.



When your tank is filled, note that the maximum fill level is 80%. This is considered a full tank. The remaining 20% allows for safe expansion when faced with changing weather conditions.

FRESH WATER SYSTEM

Valves

Your coach has been designed to perform a number of fresh water functions through the use of two valves that are placed in various configurations. The functions that can be performed are as follows:

- City Fixtures: Use when connected to a potable water source.
- City Fill Tank: Use when filling the fresh water tank with potable water.
- Country Fill: Use when filling fresh water tank from a container of potable water.
- Normal: Use when dry camping – the water pump pressurizes and circulates water from the fresh water tank to the faucets, toilet and shower.
- Sanitize/Winterize Lines: Use when winterizing the coach for winter storage.
- Sanitize Tank: Use when sanitizing the fresh water tank.



Shown here are the valves and their configuration for the various functions. Turn the arrow end of each valve toward the designated numbers for that function. Each of the functions will be explained in the appropriate sections of this Guide.



Use the City Water Connection (circled in red) for supplying the coach or filling the fresh water tank with potable water.

NOTE

Not all garden type hoses or containers are appropriate for transporting potable water. Be sure that the hose or container you use for this purpose is labeled for potable water.

FRESH WATER SYSTEM**Pump**

The fresh water pump installed in your coach provides the ability to use the water in your fresh water tank when no external pressurized water source is available. The pump provides the pressure to force water through the pipes to service the kitchen and bathroom faucets, inside and outside shower and toilet.

The pump is activated “on demand” meaning that when a faucet is opened, for example, the pump will automatically come on. The pump is NOT designed for non stop continuous use but rather for daily needs of intermittent water use.



The water pump is located in a compartment under the refrigerator. The need to access the pump is determined by the need to clean the pump's filter. If the water placed in the fresh water tank has no particulates, the need to clean the pump's filter is minimal.



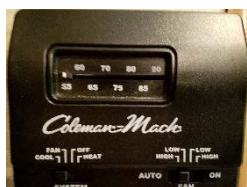
The filter is circled in red. Follow the directions in the manufacturers User's Manual for further directions. Of note in this picture is that cold water lines are blue and hot water lines are red. The pump moves water from the fresh water tank to the water heater and directly to cold water faucets.

COOLING AND HEATING**Cooling**

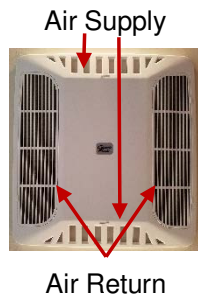
Your coach is air conditioned with a 15,000 BTU (British Thermal Units) Coleman-Mach heat pump (air conditioner) located on the roof and controlled by a thermostat in the coach.

Heating

The 31,000 BTU gas furnace is located behind an access panel located on the passenger side of the coach. The actual unit is located under the refrigerator.

**Thermostat**

The thermostat, located on a mid-ship wall, will call for cool or warm air depending on the settings. The thermostat will maintain the set temperature within a couple of degrees.

COOLING AND HEATING**Ducts and Vents**Air Conditioner

Closing the air supply vents directs the air to the ceiling vents. Adjust the delivery of air in the coach by moving the levers on the main unit's air supply vents.



Air Vents

There are reusable air filters under the air return covers of the main unit which should be cleaned every two weeks when running the heat pump. Keeping the air filters clean prevents damage to the heat pump and maintains a healthier environment in your coach.



Air Filters

Furnace

There are a number of floor vents to deliver the warm air from the furnace.

STORAGE AND LOADING**Interior Storage****Medicine Cabinet****Varies By Floor Plan**

- Overhead and kitchen cabinets
- Bedroom overhead cabinets
- Under sofa/dinette, if applicable
- Bathroom cabinets and medicine cabinet

Wardrobe**Bunk Bed Shelves****Living Room/Kitchen Cabinets****Exterior Storage**

Numerous storage bays exist around the exterior of the coach.

NOTE

- For safety and better handling while driving, evenly distribute your load front to back and left to right.

BASIC OPERATIONS

LOCKING/UNLOCKING THE COACH

SWITCHES AND CONTROLS

RADIO

PREPARING TO DRIVE

WHILE DRIVING

SAFETY CONSIDERATIONS

COLD WEATHER CONSIDERATIONS

DEPARTURE CHECKLIST



LOCKING/UNLOCKING THE COACH**Coach and Cab Locks****NOTES**

- Your coach has an assist grab handle at the entrance door. The interior portion of the entrance screen door is equipped with a plastic slide panel that allows access to the entrance door handle and locks.
- Always hold onto the entry door when it is being opened or closed. Damage caused by wind to any of the doors is not covered by the Motorized Limited Warranty. Locking the doors helps prevent them from opening unintentionally and keeps intruders from entering your motorhome.
- Your keys are marked with a number. Record these and keep it in a safe place should the keys have to be duplicated.
- All the locks should be lubricated with a light silicon spray at least once a year to mitigate damage caused by rain, salt, pollen, etc.

SWITCHES AND CONTROLS**Entry Switches**

All the switches on this page are located on the left hand side when entering the coach.



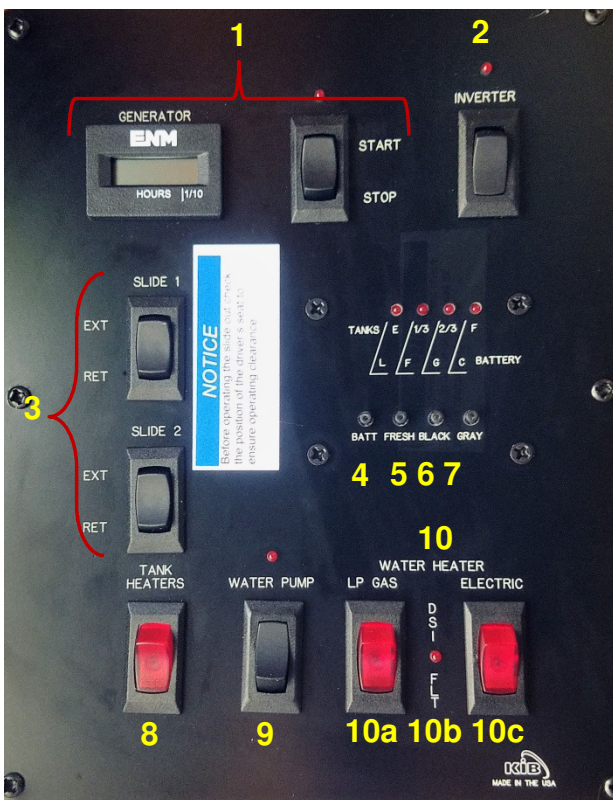
1. The Interior Lights switch is a convenient way to turn the lights on and off when entering or leaving the coach. Whatever lights are on (remember that each light has its own switch) will be turned off when leaving and turned on when entering the coach.
2. The Exterior Lights switch controls the outside porch light located to the left of the entry door.
3. The PWR STEP switch controls the extension and retraction of the entry steps. When the switch is in ON position, the steps will extend and retract every time the door is opened and closed. When the switch is in the OFF position, the steps will remain extended until the switch is returned to the ON position or the engine is started.



The Main Power switch turns the entire 12 volt power system off including the electric power source to the refrigerator. It is intended to be utilized when the coach is left unattended for 24+ hours. An illuminated red light indicates that the power is connected. If used, when turned back on all the lights that were in the ON position will illuminate.



This switch extends and retracts the awning. It is recommended that the awning be retracted when not with the coach.

SWITCHES AND CONTROLS**Control Panel**

The Control Panel is located on the upper left wall as you enter the motorhome. It houses the switches and light alert indicators to control or see the status of your:

- | | |
|----------------------|-------------------------------------|
| 1- Generator | 6- Black water level |
| 2- Inverter | 7- Gray water level |
| 3- Slideouts | 8- Tank heaters |
| 4- Battery level | 9- Water pump |
| 5- Fresh water level | 10- Water Heater |
| | 10a = LP gas burner water heater |
| | 10b = Spark igniter fault |
| | 10c = Electric element water heater |

SWITCHES AND CONTROLS**Overall Dashboard**

Driver Controls
And
Gauges

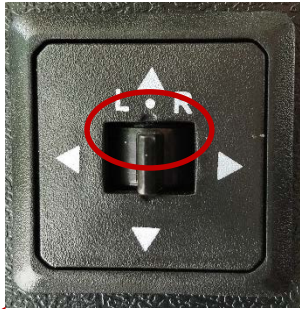
Center
Console

Passenger
Controls



The next several pages contain the detail of each of these cockpit areas.

Steering WheelCruise Control

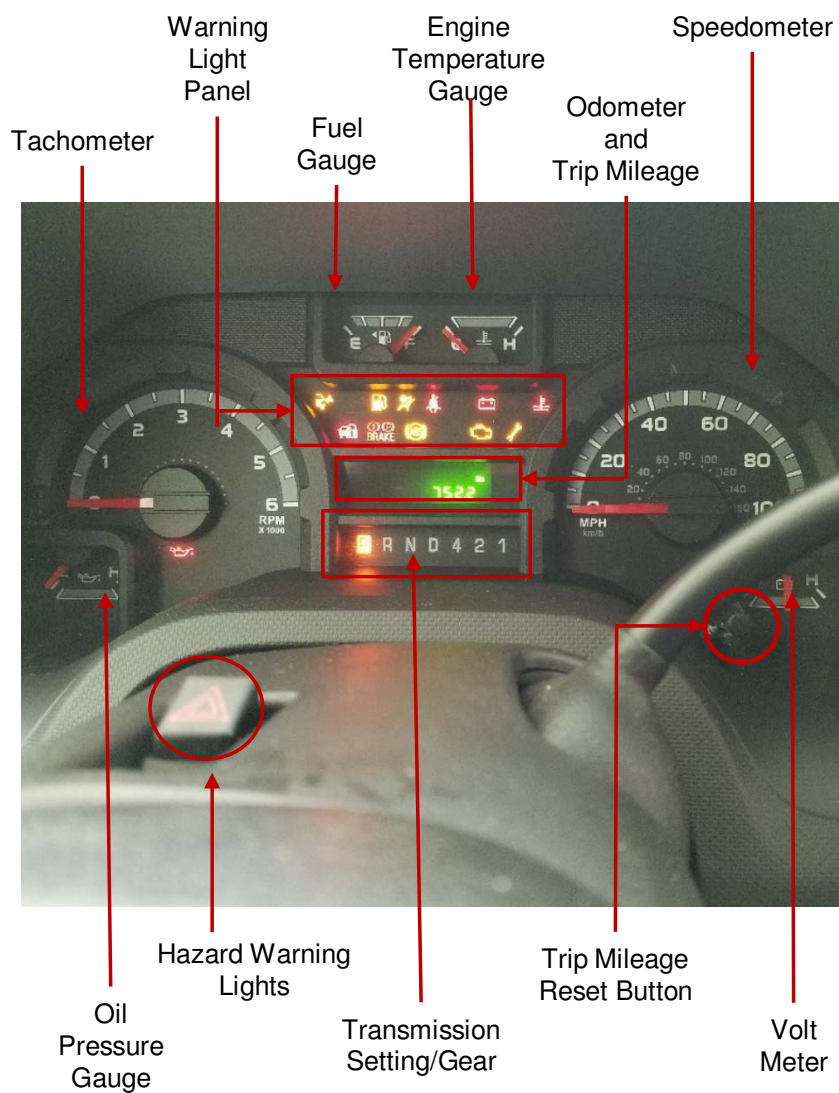
SWITCHES AND CONTROLS**Rearview Mirrors, Door Locks And Windows**Side Mirror ControlLock and Unlock
Cab Doors

Driver Side

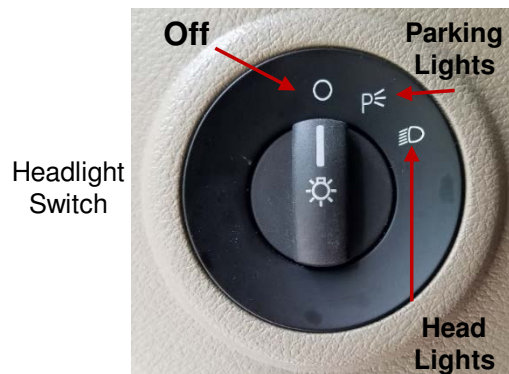
Passenger
SideDriver and Passenger
Window ControlPassenger Window
Control

SWITCHES AND CONTROLS

Driver Gauges

**NOTE**

All the lights in the warning light panel should light when the ignition is turned on. This enables you to check that none of these important lights have burned out or not operating correctly.

SWITCHES AND CONTROLS**Headlights and Cockpit Lighting**

Map Lights
(One Over Each Over Door)



Cockpit Lighting

PREPARING TO DRIVE

Fueling and Propane

The fuel cap is located on the driver side of the coach. The cap is tethered so that you cannot leave it behind at the fueling station.



Your coach provides you with a number of fuel options. The engine uses unleaded gasoline with an ethylene content up to 15%.



The propane tank, which fuels the furnace, stove, water heater, and refrigerator, if so desired, is located in the first bay on the passenger side. It should be filled by a qualified supplier and can only be filled to a maximum of 80% capacity.



For your safety and to pass through restricted thoroughfares such as bridges and tunnels, always turn the propane off while traveling.

PREPARING TO DRIVE**Checking Engine Fluids**Access Engine

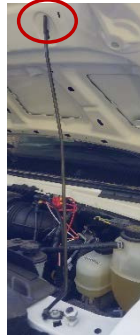
Step 1
Release
hood



Step 2
Find safety latch
between hood and grill
and push to the left.



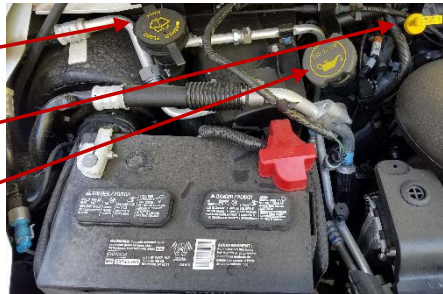
Step 3
Raise hood, unhook
and position support
bar.

Check And Replenish Fluids As Necessary

Remove cap to add
windshield washer fluid
if necessary

Oil level dip stick

Remove cap to add
engine oil if necessary



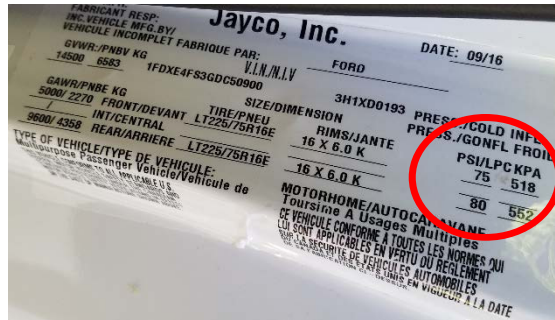
Hydraulic brake fluid

Coolant fluid

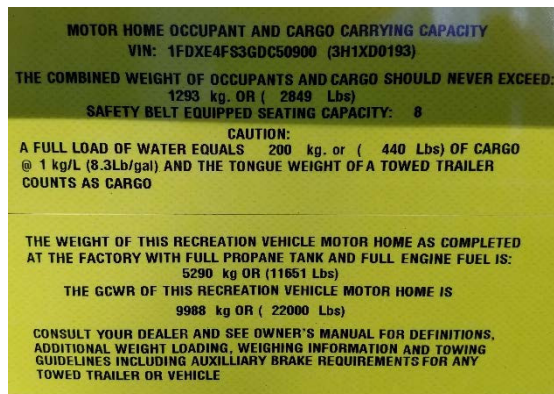


PREPARING TO DRIVE**Safe Driving**Check Tire Pressure

This label can be found on the driver side door frame and specifies the correct tire pressures. Tire pressure is sensitive to air temperatures and should be checked often. The major cause of tire blow-outs is low pressure since this causes the tires to heat up and fail.

Check Weight and Loadings

This label can be found on the driver side door frame and specifies safe weight loads. Driving an overloaded vehicle can be extremely dangerous.

Ensure Passenger Use Of Safety Belts

While not monitored, fellow travelers should always be using the seat belts installed at every seat.

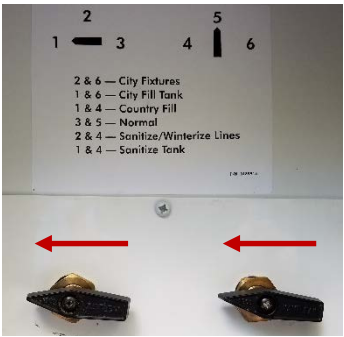


PREPARING TO DRIVE**Filling The Fresh Water Tank****Using A Potable Water Source (City Fill Tank)**

1. Configure the water valves, as shown, for City Fill Tank.
2. Connect a potable water hose to both a potable water source and the City Water Connection.
3. Turn on the city/park water faucet.
4. When the desired amount of water is in the fresh water tank, turn off the water source. **When water comes out of the overflow tube, the tank is full.**
5. Disconnect the potable fresh water hose.

Using A Fresh Water Container (Country Fill)

This feature is useful when having to fill the fresh water tank when no pressurized potable water is available such as when dry camping.



1. Configure the water valves, as shown, for Country Fill which will siphon water from a container into the fresh water tank.
2. Connect a potable water hose to the coach's City water Connection inlet and place the other end in the water container.
3. To facilitate the siphon, place the container on a platform (for example, a box) about 2 feet off the ground.
4. Turn on the water pump located either on the control panel inside the coach or on a panel located in the exterior water bay compartment.
5. When the container is empty or the desired amount of water has been added to the tank, turn the water pump off.
6. Disconnect and store the hose.

NOTE

The water pressure in some RV Parks is very high which, if not reduced, could damage the plumbing system in your coach. It is suggested that you purchase and use a pressure regulator.

PREPARING TO DRIVE**Driver Comfort**Positioning the SeatsForward and Backward

A bar located under each seat enables the seat to be moved forward or backward. Simply pull the bar up to move the seat.

Seat Back

A handle located on the door side of each seat enables the seat back to be positioned to your liking. Simply lift the handle up to change the angle of the seat back. The seat back is spring loaded to return to the most upright position, so push back on the seatback to make it recline. **Make sure that the driver and passenger seats are in the full upright position to avoid damage to the them or the slideout(s) when they are moved in or out.**

PREPARING TO DRIVE**Starting the Engine**

Place the ignition key in the lock and turn the key clockwise until the engine starts. Once it has started let the key return to its engine running position.

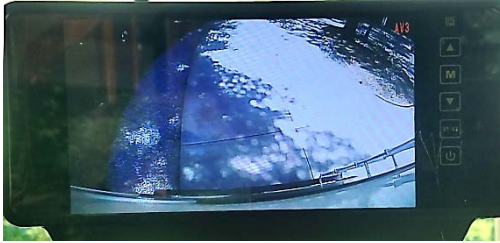
Using the Transmission

Once the engine is running **AND ALL YOUR PRE-TRIP SETTINGS HAVE BEEN ACCOMPLISHED** (see following several pages), follow these steps to begin driving:

1. Depress the brake pedal.
2. While still depressing the brake pedal, pull down on the transmission lever until the desired gear is highlighted on the display.
3. Slowly release the brake pedal and proceed with driving.

PREPARING TO DRIVE

Rear Camera



Your coach is equipped with a back up camera to ASSIST the driver while driving but especially when reversing. There is a two way audio system that enables a “helper” to communicate with the driver. The camera is embedded in the third brake light while the display is conveniently located where a rear view mirror would be found. The camera has a wide angle view which means that distances are somewhat distorted.

Camera Settings And Operations

The camera’s control buttons are on the right side of the monitor. Shown below is how to adjust the settings.



- Use arrow buttons to make selections within menu items.
- Press the MENU button the number of times shown below to reach an adjustment item and then use the arrows to make your selection.
 - 1 = Brightness • 6 = Language
 - 2 = Contrast • 7 = Image rotation
 - 3 = Saturation • 8 = Distance grid
 - 4 = Sharpness • 9 = Grid position
 - 5 = Volume • 10 = Day/Night option
 - 11 = System Reset

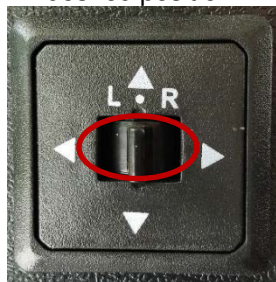
Should you add more cameras, the “Camera Selection” button will change inputs. Your camera input “V 1”

NOTES

When backing up, never rely on the camera and side view mirrors alone. It is always suggested that you have someone provide you assistance and warning to others in the vicinity.

PREPARING TO DRIVE**Rearview Mirrors, Door Locks And Windows**

Use four arrows
to move mirror to
desired position.



Flip to left to
adjust left (driver
side) mirror.

Flip to right to
adjust right
(passenger side)
mirror.



Lock and Unlock
Cab Doors

Driver Side

Passenger
Side



Open and Close
Passenger Window
(Hold until window
reaches desired
position)

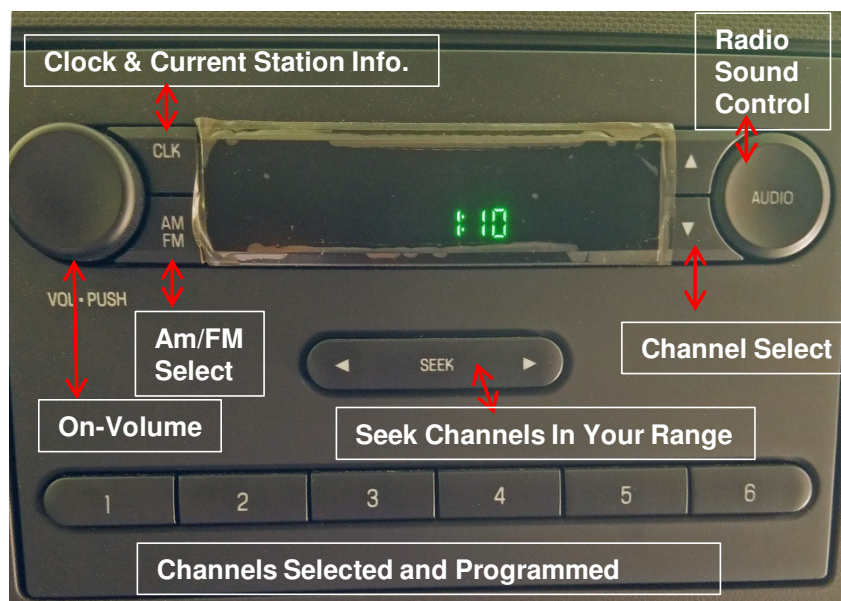
Auto down: push once
and window goes all the
way down. Push and
hold to put window up.



Open and Close
Passenger Window
(Hold until window
reaches desired
position)

PREPARING TO DRIVE

Radio



- Your coach is equipped with an AM/FM radio that *plays throughout the coach*.
- To turn on the radio, push the Vol-PUSH button.
- Push the CLK button to see the clock and current radio station.
- Select AM or FM as desired by pushing the AM FM button.
- Press arrows up or down to make station selection.
- The Audio button is to make adjustments to the sound of the radio.
 - By pushing the button, the menu will allow you to Balance the sound of the speakers and adjust the Treble or Bass sounds. Each push of the button will allow you to make a different adjustment.
- The Seek button enables you to scan available radio stations. The right arrow looks for stations "above" the current station while the left arrow looks for stations "below" the current station.
- The numbers 1-6 are used to store user selected stations for quick access. To save a tuned-in station, press and hold one of the six buttons to program that station into memory. Repeating the process with an already assigned button will replace the original station with the new station.

DEPARTURE CHECKLIST**Checklist**Exterior

1. Check that the slides are fully retracted.
2. Check that the awning is stowed.
3. Check that all utilities have been disconnected and stowed.
4. Turn the propane tank valve to the Off position.
5. Verify that all bay doors are closed and locked.
6. Check that the tires are properly inflated.
7. Check engine fluids and replenish as necessary.
8. Verify that the turn signal and braking lights are working on the coach and towed vehicle if applicable.
9. Check that your departure path is clear of obstacles.

Interior

1. Store all unsecured items.
2. Check interior cabinet doors to ensure that they are completely closed and secure.
3. Ensure that the refrigerator is set to Electric. Note: If you set the refrigerator on Auto at all times, it will automatically switch to gas if power is not available.
4. Ensure refrigerator doors are fully closed.
5. Position driver and passenger seats for driving.
6. Determine route to next destination.

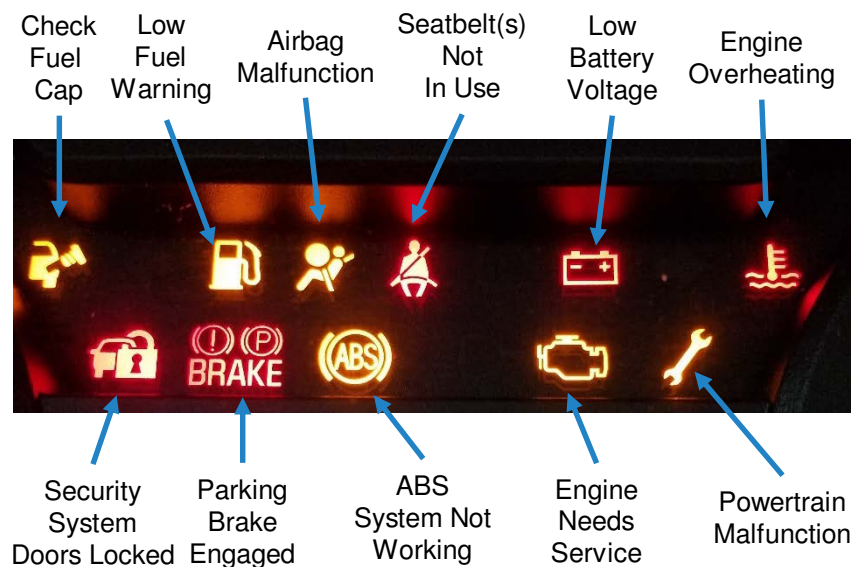
WHILE DRIVING

Warning Lights



When turning the ignition on, check that all warning lights are working. Shown below is the meaning for each indicator light.

Reset mileage of Trip 1 and Trip 2 to zero, if so desired, by pressing and holding the button until the display reads "0.0"



WHILE DRIVING**Headlights****Cockpit Lighting**Map Lights**(One Over Each Door)**

- Pushing On/Off button turns lights on.
- Both lights turn on when door is opened.

Cabin Lights

- Rotate to Change Intensity of Cockpit Lighting.
- Rotating all the way up turns on the map lights.



WHILE DRIVING**Heating and Air Conditioning**Fan Control

- Lo to Hi

Cabin Temperature

- Blue = colder
- Red = warmer

Function Selector Switch

- MAX A/C = recirculates air at coldest temperature
- NORM A/C = Set fan and temperature
- VENT = Fresh air into cabin
- OFF = off
- FLR = Direct air to floor
- MIX = direct air to both dashboard and floor
- SYMBOL = direct air to windshield for defrosting

Cruise Control

Push this button to return to the set speed after using the brake or accelerator.



The top button turns the cruise On while the bottom turns it Off.

Push and RELEASE this button to set the desired speed. Push and HOLD this button to increase the set speed.



Push and HOLD this button to decrease the set speed.

WHILE DRIVING**Turn Signals, High Beam Headlights, Windshield Wipers and Washer And Hazard Lights**Windshield Washer

Push in the collar of the lever to wash the windshield.

Intermittent Windshield Wiper

Rotate the collar at the end of the control lever to set a desired interval. The longer the line, the shorter the interval.

High Beam Headlights

Pull and release the control lever toward you to temporarily turn on the high beam headlights. Push the control lever away from you to turn on the high beam headlights. Pull the lever back toward you to turn them off.

Hi/Low Windshield Wiper Speeds

To operate the wiper continuously at the slow speed, rotate the collar at the end of the lever past the intermittent settings to the single triangle. For high speed, turn the collar to the double triangles.

Hazard Lights

Located on the steering wheel column, simply press the Hazard light button down to flash all the parking lights. Press again to turn them off.

WHILE DRIVING**Turning And Tail Swing**

When making turns the back end of the coach pivots on the back wheels causing the back of the coach to “swing” in the opposite direction of the turn. When observing others, this swing is quite evident, however when driving your coach, the swing effect is easily forgotten, particularly at gas stations, construction sites and heavy traffic. A great deal of money is spent in body shops fixing swing mishaps.

Calculating Your Swing**Calculation Method**

- It is highly recommended that you determine your coach's tail swing. Here is how you can get an accurate measurement:
 - Drive your coach to an empty parking that is painted with parking space lines.
 - Align the a side of the coach with a long straight line.
 - Drive forward slowly, and turn your coach as tight as you can in either direction.
 - Have someone else measure the distance between the opposite rear corner of the coach and the line. The longest distance between the rear corner and the line is your tail swing.

Rough Estimate

- Measure the distance from the rear axle to the end of the bumper (distance A).
- Divide distance A by 3 and the end result will be an approximate distance of your swing.

TIP

Your swing translates into how far away you should be from an obstacle such as a gas pump. If you have to make a sharp turn when leaving, if your swing is 2.5 feet, the coach should be no closer to the pump than 3 feet for safety's sake.

SAFETY CONSIDERATIONS**Safety Devices**Fire Extinguisher

A dry chemical fire extinguisher is located by the entrance door.

- It is suitable for extinguishing small fires of class A, B, and C. These include fires of paper and fabric, flammable fluids, and electrically driven fires. Be sure to aim the fire extinguisher toward the base or source of the fire.

Carbon Monoxide/Propane Sensor

A combination carbon monoxide and propane alarm is also installed in the coach and wired directly to the 12 volt system. It is located on the right hand side floor as you enter the coach.

- The alarm can drain the house batteries during long extended storage periods.
- If the house battery cables are disconnected at the battery terminals the alarm will not work.

Smoke Detector

A smoke detector that is directly wired into the 12 volt system is located on the ceiling just behind the driver's seat. The detector should be tested monthly by pressing the test button.

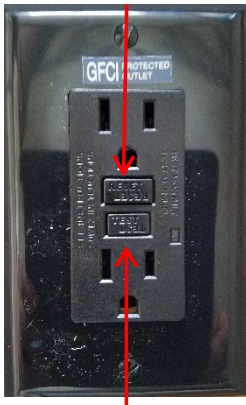
Emergency Window

There is one emergency exit in the bedroom. Lift the red lock handle and push the window out. Exit as soon as possible. Note that for safety reasons the emergency exit window(s) do not have screens.



SAFETY CONSIDERATIONS**Ground Fault Circuit Interrupter (GFCI)**

Reset Button



Test Button

This outlet, while not a GFCI device, has the protection of a GFCI device because it is wired into and protected by a GFCI device.



Your coach is equipped with Ground Fault Circuit Interrupter (GFCI) outlets. These outlets are installed to protect people from electrical shock. It is constantly monitoring electricity flow and will immediately cut off power to the outlet (and others wired to it) when it detects that current is flowing along an unintended path, such as through YOU!

If power is interrupted, determine if the GFCI has been tripped by looking at the outlet. If the Reset square button is popped out (usually with a red color) then determine where the electrical problem may be located. Once the problem is fixed, reset the GFCI outlet by pushing the Reset button back into the outlet. If the problem is still there, the GFCI outlet will not allow the Reset button to be pushed back in. You must investigate further to determine where the electrical problem exists.

To test the GFCI outlet, press the test button. The reset button should trip (pop out). Press the reset button back in and if it stays in place, the GFCI outlet is working properly.

COLD WEATHER CONSIDERATIONS**Tank Heater Pads**

If equipped, the tank heater pads are turned on at the control panel. These should NEVER be turned on unless there is water in the tanks. Doing so could damage the heater pad, tank, or both.

Once the heaters are turned on by the switch, a thermostat will keep the fluid in the tanks between 44 and 64 degrees. The heater pads will protect the tanks to -11°

**Battery Boost**

In the event cold weather or overuse has diminished the power in the chassis battery, press the battery boost button to link the house battery with the chassis battery. In most cases, this will provide enough energy to start the engine.

USING YOUR COACH

SETTING UP CAMP

GETTING
COMFORTABLE

AROUND THE
KITCHEN

CLEANING YOUR COACH

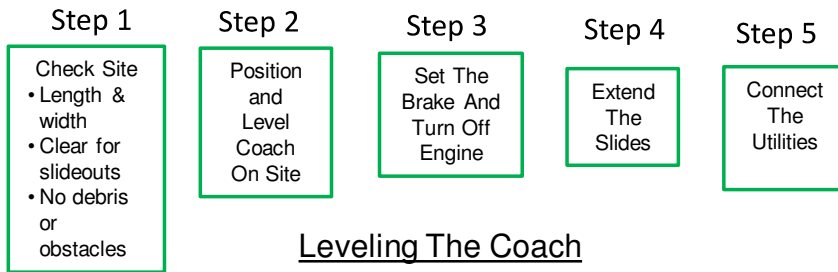
BREAKING CAMP



SETTING UP CAMP

Overall Process

This is the recommended process for setting up camp.

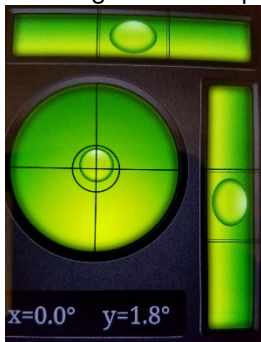


NOTES

- For the refrigerator to work properly and for your own comfort, it is highly recommended that you level the coach.
- Fortunately, most RV sites are level and will not require any adjustment. If the coach does have to be leveled, follow these simple steps.

Leveling Without Hydraulic Jacks

- Place a Smart phone with the Bubble Level app on the floor in such a way that it is **centered between the four wheels** with the long side of the phone parallel to the length of the coach.



- In this example the coach is level side-to-side ($x = 0^\circ$) but needs to have the rear wheels raised.
- Use the chart below to determine how many inches the rear wheels need to be raised to level the coach.
- Note: If you do not have a Smart phone, you can purchase a level that identifies the number of degrees required to level your coach.

		Percent Slope														
Horizontal/Vertical Degrees Slope Inches per Foot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	100	50	33.3	25	20	16.7	14.3	12.5	11.1	10	9.1	8.3	7.7	7.1	6.7	
	0.6	1.1	1.7	2.3	2.9	3.4	4.0	4.6	5.1	5.7	6.3	6.8	7.4	8.0	8.5	
	0.1	0.2	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.4	1.6	1.7	1.8	

- In this case we will use the 1.7° slope since it is the closest on the chart. A slope of 1.7° requires lifting the rear wheels 0.4" per foot.
- Assuming that the distance between the phone and the rear wheels is 6 feet, the rear wheels need to be raised 2.4" (6×0.4).

SETTING UP CAMP

Overall Process**Leveling The Coach**

(Continued)

- Place blocks of the right thickness in front of the appropriate wheel(s). The blocks should be wide enough to support the entire footprint of the tires. In the case of the rear wheels where there are two tires on each side, all four wheels should be supported.
 - Locking stackable blocks that are recommended for this purpose can be purchased at an RV or camping store, on-line or camping section of a department store.
- Slowly move the coach forward onto the blocks and check that the coach is level. If it is not, continue making adjustments or seek another site.

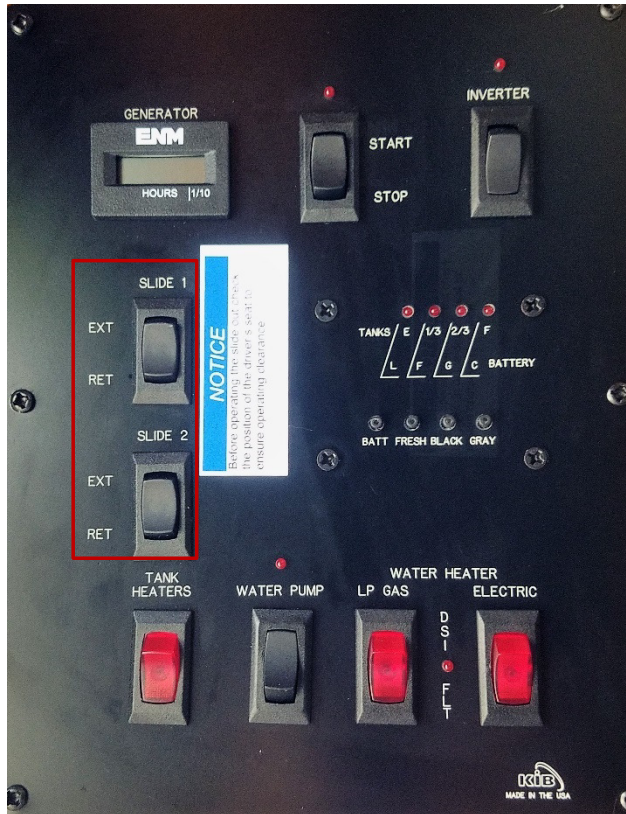
Leveling With Hydraulic Jacks, If Equipped

- Position the coach on the site with consideration to the utility hook-ups and clearance for the slides.
- Set the parking brake and turn off the engine.
- Press the power button to initiate the system.
- Depress AUTO LEVEL and let the jacks deploy and level the coach.

For safer and stress-free parking, unhook your tow vehicle before traveling to, and parking at, your site.

SETTING UP CAMP

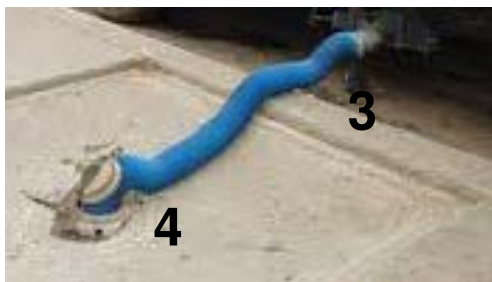
Overall Process

Extending The Slideout Rooms

- Before extending the slides, be certain that the slides will not encounter any obstacles such as trees, high pedestals or other obstructions as they are extended.
- The control panel contains the switches to extend and deploy the slides.
- The slides will not operate with the engine running, so be sure that it has been turned off.
- Press and hold each rocker switch up toward EXT (extend) until the slide is fully extended. **As soon as the slide is fully extended, release the button to avoid any damage to the slide mechanism.**

SETTING UP CAMP**Overall Process****Hooking Up Sewer Line**

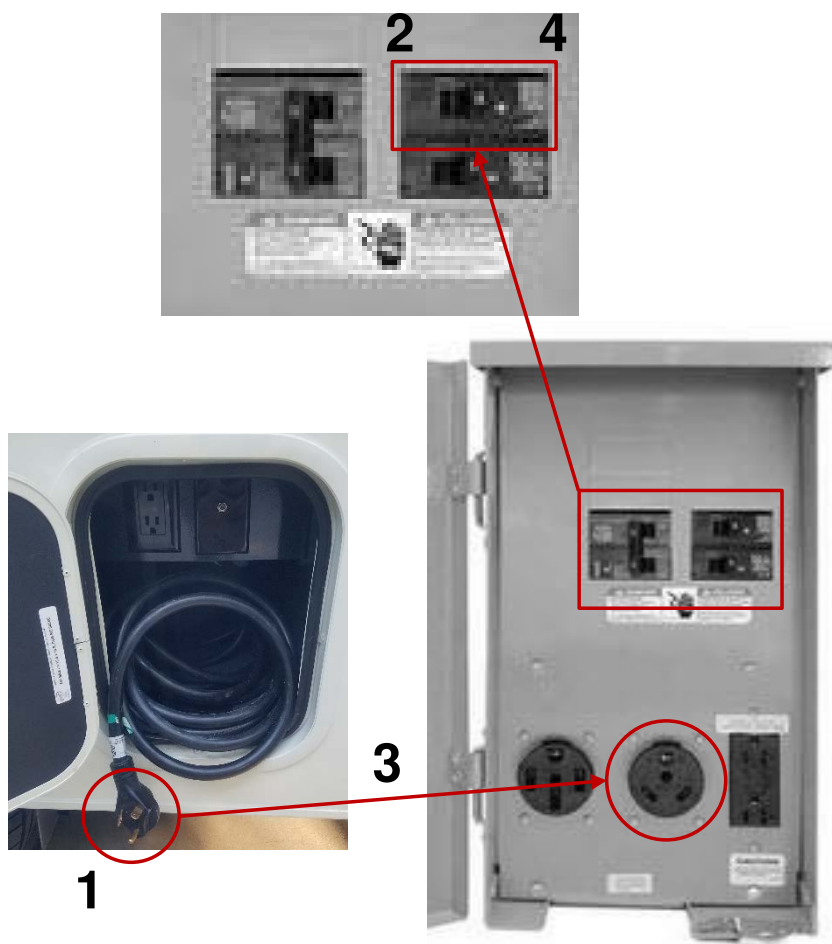
1. Ensure that both the black and gray water tank gate valves are in the closed position (pushed in)
2. Remove the cap from the black water tank outlet
3. Connect your sewer hose to the outlet
4. Connect the other end to the RV park sewer pipe
5. Leave the black water tank gate valve closed until it needs to be emptied
6. Open the gray water gate valve

**NOTE**

If dry camping where there will be no hookups, leave both the grey and black gate valves in the closed position (pushed in).

SETTING UP CAMP**Overall Process****Hooking Up Electricity**

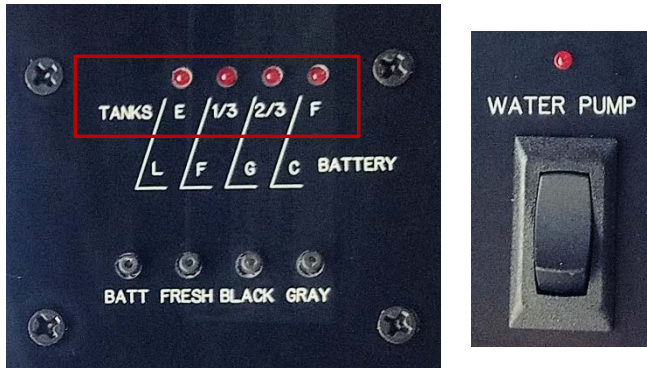
1. Remove the electric cord from its storage place
2. Ensure that the 30 amp breaker is in the Off position at the RV park pedestal
3. Insert the plug into the 30 amp outlet
4. Turn the 30 amp breaker to the On position



SETTING UP CAMP**Overall Process****Hooking Up Water**

1. Retrieve your potable water supply hose
2. Connect the male end to the city water inlet hose connection
3. Connect the female end to the RV park faucet
4. Turn on the RV park faucet – in this case by pulling up on the handle.



SETTING UP CAMP**Monitoring Tanks and Battery Voltage****Tank Levels**

The tank monitoring system is located on your control panel inside the coach and is outlined in red, above.

Gray Water: Press the Gray button

- If hooked up to a sewer, this should read "0" since the gray water tank gate valve should have been opened when hooking up the sewer line.
- If dry camping, the tank level must be checked since the gate valve will be in the closed position.

Black Water: Press the BLACK button

- For safety's sake, the black water tank should be emptied and cleaned when it is between 2/3 and 3/4 full.
- The next page explains how to do this.

Fresh Water: Press the FRESH button

- If you are going to be dry camping, be sure to fill your fresh water tank to avoid being without water.
- When dry camping, you will have to switch on the water pump so that water is supplied to the coach from the fresh water tank. The switch is located on the control panel and shown above.

Battery Level

Pressing the BATT button will display the state of the house battery. L = Low; F = Fair; G = Good; and, C = Charged. Generally speaking, all four lights will light only when the coach is plugged into shore power or running the generator.

SETTING UP CAMP**Black And Gray Water Tank Management****Emptying And Flushing The Black Water Tank**

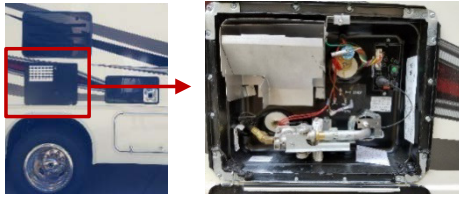
1. Be sure that the coach is level to ensure that all fluids and solids will be flowing from the tank.
2. Ensure that the sewer hose is properly connected at both ends.
3. Pull the black water gate valve out to allow the black water to drain into the RV park's sewer system.
4. Turn the water source Off at the hydrant.
5. Connect a hose dedicated for this purpose (black water only) between the RV park water source and the top hose connection (circled in red, below).
6. Turn on the RV park faucet.
 - Ensure that the black water gate valve is still in the open position.
7. Let the water run for a while so that the washing mechanism inside the tank can remove liquids and solids in the tank.
8. Turn the water source off.
9. Disconnect the dedicated black tank flushing hose and store in a way that the fresh water hose and surrounding areas cannot be cross contaminated.
10. Reconnect the fresh water hose and open the faucet.



An alternative method, although not quite as effective, is to allow the gray water tank to fill to about 2/3 to 3/4 capacity. After draining the black water tank, open the gray water gate valve and allow the gray water to both flow into the black water tank as well as through the sewer hose. When done, the sewer hose should be “relatively” clean.

NOTES

1. Care should be taken when handling any contaminated water. It is suggested that you use disposable rubber gloves.
2. Some find it convenient to use a “Y” connector at the water source so that both hoses can be connected at the same time. If used, a check valve should be placed between the Y connector and the dedicated black tank flush hose to ensure that no fresh water is contaminated that can cause illness.

SETTING UP CAMP**Water Heater System**

Your water heater is located on the passenger side of the coach. The cover is opened by slightly pulling and twisting the tab at the top of the panel so that it can pass through the slot in the panel. The cover is fastened to a hinge on the bottom so **DO NOT** try to completely remove the cover.

The water heater uses either LP gas or electricity, or both together, to heat the water. It has an integrated 6 gallon hot water tank and is equipped with a spark igniter that starts the gas burner. The water heater **DOES NOT** have a pilot light and you should never try to ignite the burner by hand.

CONTROLS

- The control panel provides a convenient place to turn on the water heater by selecting either gas, electricity or both. (Using both speeds the recovery of hot water in the tank.)
- The DSI FLT(fault) light will illuminate if there is a problem with the spark igniter. See the User Manual for further information should this happen.

NOTES

- To avoid damage to the tank and controls, **NEVER** turn on the water heater without water in the tank.
- To insure that the tank has water and that all air pockets have been eliminated, run both the hot and cold water faucets until the water runs without interruption
- The water heater has been set to maintain a minimum water temperature of 130°F. If hot water is used faster than the recovery rate, the water will be colder.
- Using the electric element when not plugged into shore power or running the generator will rapidly deplete the house battery and is not recommended.

GETTING COMFORTABLE**Travel'R Awning**Extending And Retracting The Awning

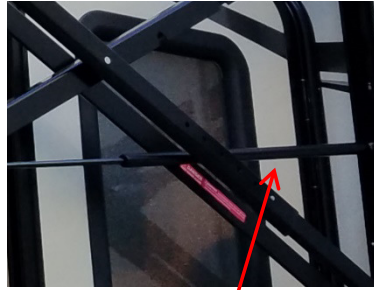
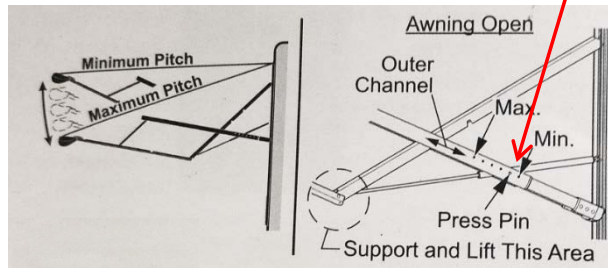
Your motorhome is equipped with a Carefree Travel'R adjustable pitch awning. To operate the awning press and hold the awning switch until the awning is in the desired position then release the switch.

The pitch of the awning can be adjusted utilizing a six pitch adjustment. (Please review the User Manual to understand the warnings about unequal pitch settings.) The awning can be extended and retracted in any of the six positions.

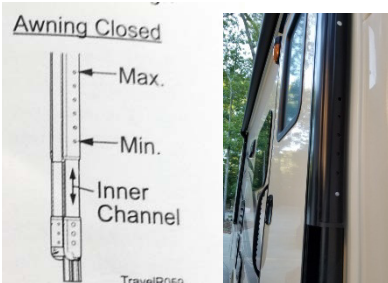
NOTE

The awnings should always be stowed if you are going to leave the campsite to prevent wind gust damage. Wind or rain damage to the awning is NOT covered under warranty.

See the next page for adjusting the pitch of the awning.

GETTING COMFORTABLE**Travel'R Awning**Awning Pitch AdjustmentAdjusting Pitch While Awning Is Open

1. Hold onto the awning arm to keep it steady while adjusting the pitch.
2. Press in the pitch adjustment pin located on the long scissor arm. Tip: applying light pressure on the arm will decrease the force required to press the pitch adjustment pins.
3. Slide the scissor arm to the desired set hole - towards the coach for a lower pitch and away from the coach for a higher pitch.
4. Be sure that the pin has reset and is seated properly.

Adjusting Pitch While Awning Is Closed

1. Press the pitch adjustment pin located on the long scissor arm.
2. Slide the inner scissor arm up or down to the desired set hole.
3. Be sure that the pin has reset and is seated properly.

GETTING COMFORTABLE**Cooling-Heating**Controlling The Temperature**SYSTEM**

- COOL
 - This setting utilizes the heat pump located on the roof to provide cool air to the coach.
- FAN
 - The fan function simply recirculates air throughout the coach. The air is neither cooled or heated.
- OFF
 - Turns both the heating and air conditioning functions off.
- HEAT
 - This setting engages the furnace to provide warm air through the floor registers.

FAN

- AUTO-HIGH
 - The fan comes on at a high speed when the thermostat calls for either warm or cool depending on the SYSTEM setting.
- AUTO-LOW
 - The fan comes on at a low speed when the thermostat calls for either warm or cool depending on the SYSTEM setting.
- ON-LOW/ON-HIGH
 - The fan runs continuously (LOW or HIGH speed) recirculating air or distributing cool or warm air depending on the SYSTEM setting.

GETTING COMFORTABLE**Light Control and Window Shades**
Lighting

The interior lights are easily turned ON and OFF using the small rocker switch located on the fixture.

NOTE

When exiting the coach, most, but not all, of the lights that are on can be turned off by using the Interior Lights switch located by the main door. When returning to the coach, the lights that were turned off when exiting the coach can be turned on by, once again, pressing the Interior Lights switch.

Shades

Your coach has roller shades at each window. Pull the shade down to the desired level. To retract, simply apply a slight downward pull and then let the shades return to their closed position.

GETTING COMFORTABLE**Bathroom Facilities****Using The Toilet**

Stepping on bar at the base of the toilet opens the valve that prevents sewer gas from entering the coach as well as providing water for flushing.

RV and marine toilets work well but can be fussy – Read the information below.

TIPS

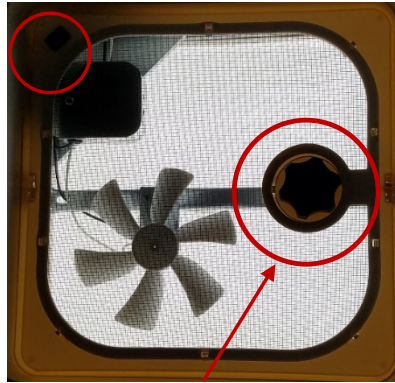
- After flushing the black water tank, hold the pedal down to add at least 2 gallons of water to the black water holding tank. This prevents solids from sticking to the bottom of the tank which facilitates the cleaning of the tank.
 - When doing the above, add an approved RV black water holding tank chemical (follow the directions) to reduce the nasty odors that can develop in the tank.
- Use sufficient water to ensure that the contents of the bowl are moved into the holding tank. The amount of water is determined by the length of time the pedal is held down.
 - Unlike a residential toilet which has a predetermined amount of water for flushing, an RV toilet is totally dependent on the user to ensure an adequate water supply.
 - Sufficient water reduces the likelihood of a clogged pipe, the cleaning of which, is not a particularly pleasant endeavor.
- When flushing is complete, partially release the pedal and allow 4 to 6 inches of clean water to collect in the bowl.
- To prevent toilet blockage, always use RV grade single ply toilet paper.

WARNINGS

- **DO NOT, under any circumstances, flush anything down the toilet other than organic material and approved toilet paper.**
 - **It is recommended that a trash bin be kept by the toilet for disposal of non organic/non approved used toilet paper.**
 - **This includes baby wipes, paper towels and other commonly used materials that should not be flushed down a residential toilet.**

GETTING COMFORTABLE**Bathroom Facilities****Vent Fan**

The BATH FAN wall switch will only work if the small rocker switch located on the fan itself is left in the On position. Check the setting of the fan switch if the wall switch does not work.



The fan should only be operated when the fan's cover is raised which is done by turning the handle circled in red, above.

NOTE

- Venting the bathroom, and the entire coach when needed, is extremely important. Condensation may cause dampness, mildew, mold, staining, and, if allowed to continue, it may result in damage to the coach. Damage caused by condensation is NOT covered under warranty.

Lights

- 1 = Main bathroom light
2 = Vanity lights

NOTE

For these switches to work the switch on the lights themselves must be in the ON position.

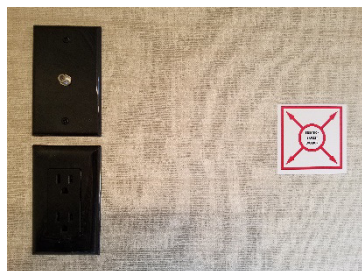
GETTING COMFORTABLE**Watching Television****Main Television**

Your coach is equipped with a television set which is mounted to a swivel arm at the foot of the bunk bed above the driver/passenger seat. This television can be moved by pushing the button located to the right of the TV under the ceiling cabinet.

If you depress this button, the TV will swing around for viewing from the sofa or dinette seating. Push the top of the switch to move the set out and the bottom of the switch to retract it.

**Additional Television Sets**

Your coach is also prewired to install a TV in the bedroom as well as to hook up a TV for outside viewing.



Location for
installation
of bedroom TV



TV hook-up located in
storage bay under furnace
access panel

GETTING COMFORTABLE**Watching Television****Broadcast (Over-The –Air) Television**

Your coach is equipped with a King Jack HDTV antenna on the roof and a handle located on the living area ceiling that is used to turn the antenna toward the local broadcasting antenna. The power injector located in the cabinet above the entrance door must be turned on (by pushing the button in) to watch over-the-air television.

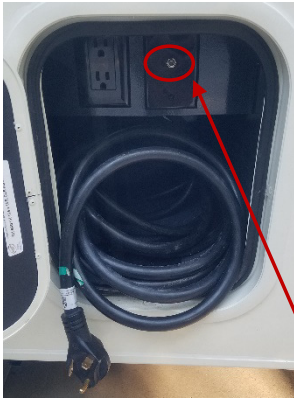


Antenna

Antenna Rotation
KnobPower Injector
Green Light = ON

The power injector (if so equipped) is located on the wall plate switches between your cable/satellite signal and the over the air HDTV antenna. When the button on the wall plate is pushed ON, it lights green and interrupts the satellite/cable input to the TV. It then turns on the HDTV roof antenna to receive local TV stations. When the button is pushed OFF, it turns the roof antenna off and the satellite or cable TV signal is resumed by the TV.

To achieve the best picture quality, turn on your TV and find an active station. While watching the TV, rotate the antenna by pressing the button on the side of the Antenna Rotation knob and turning it (which rotates the antenna) until you achieve the best picture quality. Different stations may be broadcast from different locations, so the antenna may have to be positioned again to achieve the best picture quality for that station.

GETTING COMFORTABLE**Watching Television****Cable Television****Cable Input**

Connect one end of a coaxial cable to the RV park's cable outlet and the other to the coach's coaxial cable distribution input located in the electric power cord utility compartment.

Power Injector

The power injector must be turned off by releasing the button to the out position. The Green light will go out.

Channel Search

Follow the directions of your TV to search for active stations on the cable system.

GETTING COMFORTABLE**Watching Television**
Satellite TV

Should you have a portable satellite antenna, for example, the coaxial cable from the antenna would be connected to the input located in the power cord storage bay. An outlet is conveniently co-located with the coaxial input connector to power the portable satellite antenna.



The satellite receiver can be placed in the cabinet over the entrance door where there is an outlet and a connector panel.



The air antenna power injector must be in the OFF position: that is, NOT depressed -- the green light should NOT be lit.

GETTING COMFORTABLE**Getting Ready For Bed****Converting The Dream Dinette Into A Sleeping Area**

Your coach is equipped with a Dream Dinette. This dinette can be transformed into another sleeping area.

**To convert to a sleeping area:**

1. Remove all cushions from the dinette.
2. Locate the locking mechanism rod under the table top. This mechanism is designed to keep the table from collapsing into the bed configuration.
3. Turn this rod so it moves out of the channel and points down toward the floor.
4. Push the dinette table down toward the floor to form the platform for the bed.
5. Arrange cushions in a row to form a mattress for sleeping.

**To convert back to a dinette:**

1. Remove the cushions.
2. Pull the table back up as high as it will go.
3. **Turn the rod underneath back to the locked position so that the table does drop when leaned on.**
4. Reposition the cushions.

GETTING COMFORTABLE**Getting Ready For Bed****Tri-Fold Bed**

The Tri-fold Sofa offers very similar features to the traditional Hide-a-Bed. The following illustrations detail converting the sofa into a bed.



1. Remove tri-fold sofa pillows and set aside.



2. Using the strap handle, pull sleeping surface up, then out.



3. While sleeping surface is up, fold out legs. Extend sleeping surface until grounded.



4. Once sleeping surface is grounded, fold headboard down flat.

AROUND THE KITCHEN**Appliances****Norcold Refrigerator**

This refrigerator operates on either 120 volt electricity or propane gas. The default power source is electricity. If electricity is not available, the Auto setting will automatically change the power source to propane gas. See owners manual for more details.



**Source Of
Energy
Switch**

**Temperature
Selection**

NOTES

- The refrigerator/freezer is not intended for quick freezing or cooling.
 - It is recommended that you stock it with pre-frozen or pre-cooled food when possible.
- The shelves should not be covered with paper or plastic and the food item should be arranged so that air can circulate freely.
- Keep the area at the back of the refrigerator clean and free of debris.
- For optimum efficiency and performance, it is recommended that the refrigerator be checked at least twice a year as part of routine maintenance.
- The doors, when closed tightly should not open during transit.

AROUND THE KITCHEN**Appliances****Microwave Oven**

A HIGHPOINTE microwave oven is installed in your coach. This microwave oven is multi-functional. It will cook via microwaves, convection and a combination of the two. It will also perform the following:

- Grilling
- Defrosting
- Multi-stage cooking
- Speedy cooking
- Auto menu cooking



Highpointe Microwave Oven

See Owners Manual for more details.



Wedgewood Vision Cooktop

See Manufacturer's Literature Number 5229 for more information.

Gas Cooktop

Your motorhome is equipped with a 3 burner Wedgewood Vision gas cooktop. Before using, make sure that the gas valve is open.

To light top burners:

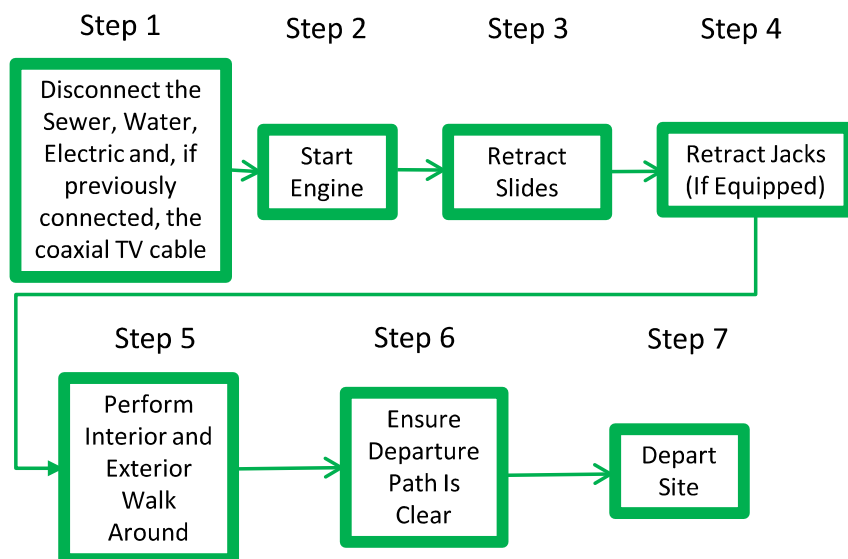
- a) All burner controls operate counterclockwise and must be pressed inward toward the cooktop to turn on or light. Do not attempt to light more than one burner at a time.
- b) Turn the appropriate burner knob counter-clockwise to ON or LITE.
- c) Turn the SPARK knob clockwise one "click". If the burner fails to light, continue turning the SPARK knob clockwise until the burner lights. To extinguish the burners, turn the appropriate burner knob clockwise to OFF.

WARNINGS

- ALWAYS open a vent or window to avoid carbon monoxide buildup and poisoning when cooking.
- Avoid using oversize pots, pans, and baking sheets which can cause overheating and damage the grates and burners.

BREAKING CAMP

Overall Process



NOTES

Do double check that everything is ready for travel. Rapid departures often lead to broken roof fixtures and storage doors flying open!

It is suggested that you hook-up your tow vehicle AFTER leaving your site but before leaving the campground.

BEYOND THE BASICS

ELECTRICAL
SYSTEM

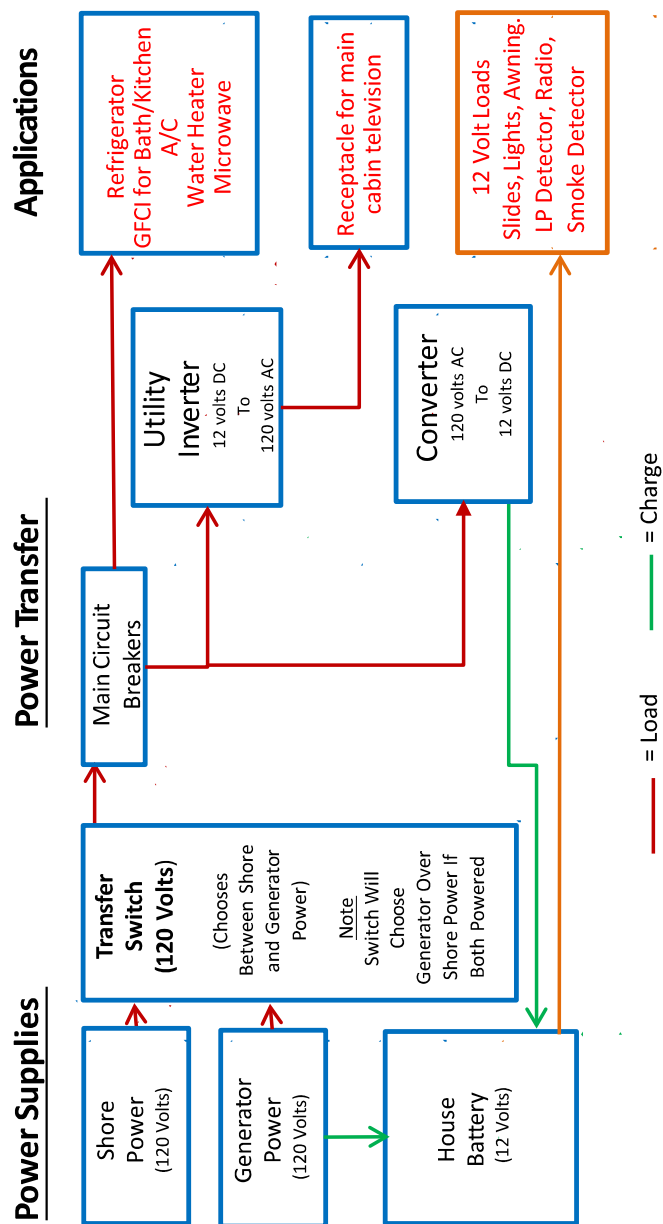
PLUMBING SYSTEM

COLD WEATHER
CONSIDERATIONS



ELECTRICAL SYSTEM

Electrical System Diagram



Key Points

This diagram shows how electricity is managed in your coach when it is served by either shore or generator power. All the components have been described in earlier sections of this Guide. Note that:

- Some 12 Volt devices are powered from the house battery while others are powered from the converter.
- The 120 Volt system, through the converter, is the primary source for charging the house battery.
- When running, the engine's alternator will also charge the house battery.
- 120 Volt devices will be powered either by the battery through the inverter or directly from the shore power depending on circumstances. Not all 120 volt devices will work from the inverter alone – the generator will have to run for the A/C for example.

ELECTRICAL SYSTEM**Introduction**

Your coach has, in essence, two electrical systems

- 120-volt AC: the same as in your home
- 12-volt DC: the same as in your car

Both systems have to work together to provide the coach with the type of power required for its appliances, motors, and controls.

- There is a 1000 watt inverter that *inverts* 12 Volt DC power to 120 Volt AC power.
- There is also a converter that *converts* 120 Volt AC power to 12 Volt DC power to charge the house battery. The chassis battery and house battery are also charged by the engine's alternator, when running.

How your coach operates electrically depends on the source and use of your power which are as follows:

- Shore power which could be either 15, 20, 30 AMP service
- Generator power (30 amp service)
- Battery power
- Engine alternator

Generator Power

- The generator is accessed by opening the bay door on the driver's side. (Outlined in red, below.)



- To open the cover of the generator, turn the two handles to the horizontal position.
- Once the cover is disconnected, lift the cover up behind the exterior wall far enough for the bottom of the cover to be pulled out.
- Reverse the process to replace the cover.

ELECTRICAL SYSTEM**Generator Operations**

Your motorhome is equipped with a gasoline powered generator. The generator produces 30 amps of 120 volt power and can completely replace shore power when it is unavailable. It is located on the driver's side front bay area.

Transfer Switch

The generator interfaces with the 120 volt electrical systems through a transfer switch that automatically switches between available shore power and generator power. The transfer switch does not require any manual operation. When the generator is operating, it powers the converter/charger which in turn functions as a multi-stage battery charger to charge the house battery.

NOTE

The gasoline generator requires 12-volt power from the house battery to start, and draws fuel to operate from the chassis fuel tank. If the fuel level in the chassis fuel tank drops $\frac{1}{4}$ full, the generator will automatically shut off and cannot be restarted until the fuel tank is filled to above $\frac{1}{4}$ full.

WARNING

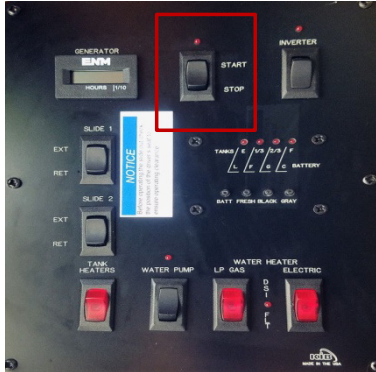
Carbon monoxide is deadly. DO NOT run the generator when your motorhome is indoors or in a confined space. Asphyxiation or carbon monoxide poisoning hazards exist whenever generator exhaust gases can accumulate.

ELECTRICAL SYSTEM**Generator Controls**

Before starting the generator:

1. Make sure the carbon monoxide detector is working
2. Turn off air conditioners and all 120-volt appliances
3. Check for fuel, exhaust and coolant leaks.

Stop the generator immediately if there is a fuel, exhaust or coolant leak. Have all leaks repaired prior to placing the generator back in service.



Control Panel
located on left side
of front door entry.

To manually start the generator:

1. A generator “Start/Stop” switch is installed on the Control panel. A second generator “Start/Stop” switch is located on the generator itself.
2. At either “Start/Stop” switch, press and hold the upper portion of the switch to start the generator. Depending on the outside temperature. Once the generator starts running, release the “Start/Stop switch.
3. For top performance and the longest engine life, especially in colder weather, let the generator engine warm up for two minutes before turning on any 120-volt appliance.

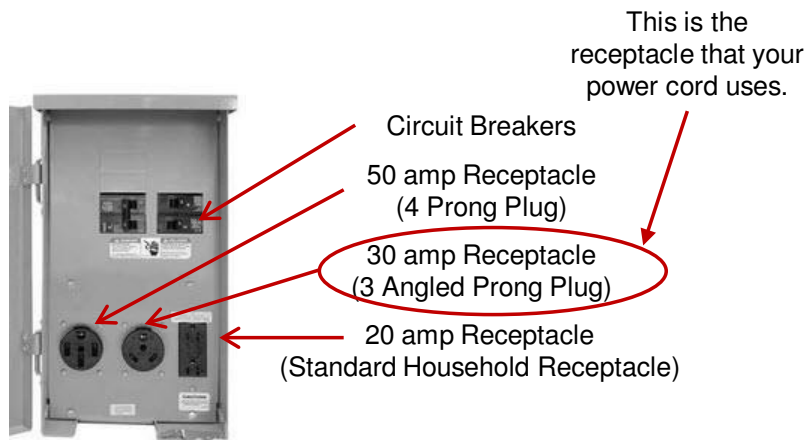
NOTE

Excessive usage can overheat and damage the generator starter motor. Do not engage the starter motor for more than 20 seconds at a time. If the generator does not start after the first attempt, wait at least two minutes before beginning another sequence. If the generator does not start after the third attempt, refer to the generator Owner’s Manual for additional information.

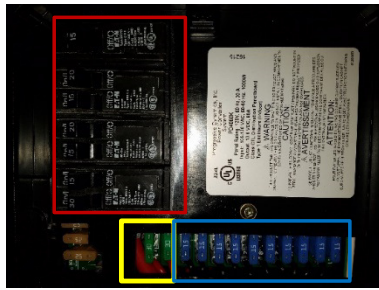
ELECTRICAL SYSTEM**Shore Power**

- Shore power is generally provided at an electrical panel similar to the one shown below. (This panel is often called a pedestal since cable and water connections may also be made at this location.)
- When connecting your coach, the 30 amp circuit breaker should be in the OFF position to avoid any arcing or electrical surges. Once plugged in, switch the circuit breaker to the ON position. Powering the transfer switch will cause a slight delay before power is available to the coach – this is normal.
- In order to use the 20 AMP service an adapter will be needed.

It is recommended that you always carry a 30 to 20 amp adapter in case you arrive at a site that does not have 30 amp service as promised. This happens sometimes!

**Battery Power**

- The house battery is located in a forward bay on the driver's side. This battery requires no maintenance with the exception of a periodic inspection to ensure that the cables are tight and clean.

ELECTRICAL SYSTEM**120 Volt Circuit Breakers And 12 Volt Fuses**

Red = 120 volt circuit breakers
 Blue = 12 volt fuses
 Yellow = Reverse polarity*

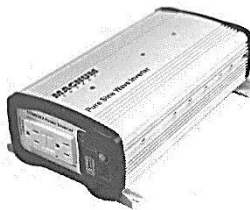
* Reverse polarity fuses are installed to prevent damage to the electrical system should the house battery be connected incorrectly.

AC BRANCH CIRCUITS		DC BRANCH CIRCUITS	
MAIN		REVERSE POLARITY	30A
REFER, GFCI, BATH, KITCHEN	A	REVERSE POLARITY	30A
UTILITY INVERTER	B	1 MAIN SLIDEOUT, TANK HEAT 2 & 3	30A
A/C	C	2 BED SLIDEOUT, TANK HEAT 1	30A
WATER HEATER	D	3 TANK HEAT SW, BATH AREA	15A
MICROWAVE	E	4 MONITOR PANEL, KITCHEN AREA, WATER PUMP	15A
CONVERTER	F	5 FURNACE, ATTIC FAN	15A
REVERSE POLARITY FUSES		6 BEDROOM AREA	15A
AMP/MODEL 60		7 ANTENNA BOOSTER, DS OHC LIGHTS	15A
# OF FUSES: 3		8 ENTRY, LIVING AREA, PORCH LIGHTS	15A
FUSE SIZE: 25		9 TRUNK LIGHTS, POWER AWNING	15A
P/N 0226746 AS-6-12		0 MAIN SLIDEOUT LIGHTS	15A
		1 FRONT BUNK LIGHTS	15A
		2 REFRIG, L.P. DETECT, RADIO, SLIDE SW.	15A

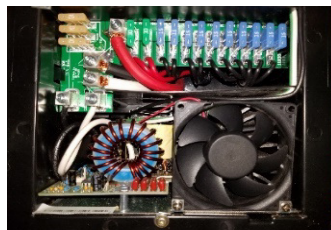
Inverter

- Inverter will produce 1000 watts of 120 volt AC electricity.
- Inverter is not for use with life saving medical devices.

If it is not working, check the circuit breaker.
 If that does not fix the problem, take your coach to your Dealer for repair, as there are no consumer serviceable parts.

**Converter**

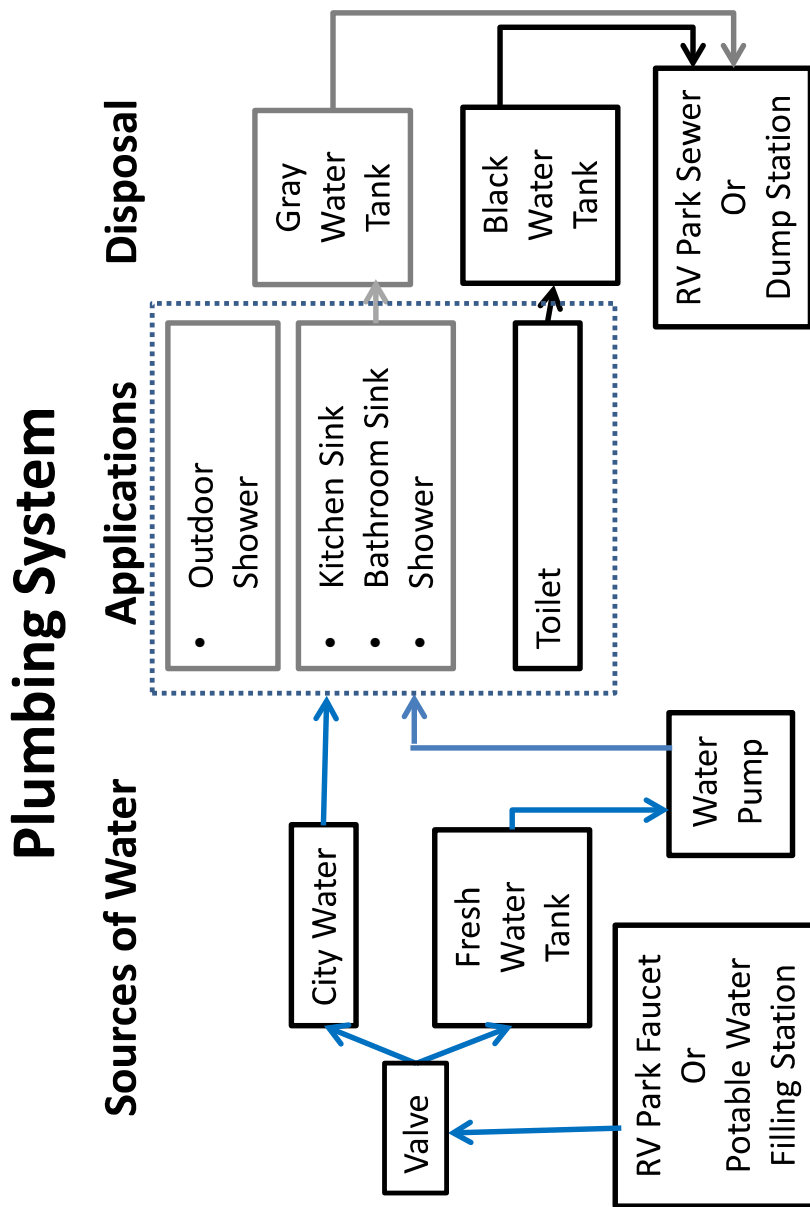
- Located below breaker/fuse panel
- Must take cover off to access.
- Converts 120 volts AC to 12 volts DC.
- Should be little need for user to access.

**NOTE**

It is suggested that you carry an assortment of fuses with you.
 Your local auto parts store can assist you in purchasing the correct types and sizes of fuses.

PLUMBING SYSTEM

Plumbing Flow Chart



PLUMBING SYSTEM**Changing The Fresh Water Filter**

Water
Filter



Spanner
Wrench

To replace the fresh water tank filter, find the Spanner wrench and water filter provided with your new coach materials and purchase petroleum jelly. Then:

1. Turn off water supply.
2. Place drip pan below filter housing to catch any spillage.
3. Open water faucet in sink to release water pressure
4. Using Spanner wrench, rotate filter housing with wrench to remove the housing.
5. Remove filter cartridge and dispose of properly
6. Clean inside of filter housing with mild detergent, thoroughly rinse and wipe clean.
7. Remove o-ring from groove in housing and wipe clean. Recoat with petroleum jelly.
8. Replace o-ring in groove, making sure it is properly seated.
9. Install new filter cartridge.
10. Replace housing (hand tighten is normally sufficient).
11. Turn on water supply to check for leaks.
12. Close faucet.

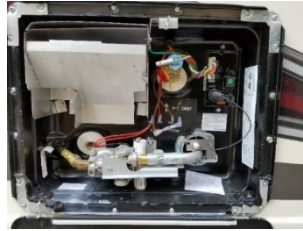
Caution

- Do not allow filter housing to freeze
- Remove cartridge before using anti-freeze to winterize system
- Flush housing thoroughly before it is put back into service after winterizing
- For best results replace cartridge every 6-12 months
- Do not use carbon cartridges where water is microbiologically unsafe or of unknown quality.
- Maximum operating pressure is 125 psi (8.5 bar)
- Maximum water temperature is 125 degrees Fahrenheit (52 degrees Centigrade)

PLUMBING SYSTEM

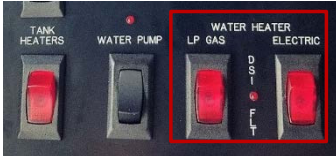
Water Heater

Your coach is equipped with an electronic ignition water heater and a 6 gallon hot water tank. The water heater will operate on either LP gas (propane), 120 volt electricity, or both. The switches for the water heater are located on the command center panel



CAUTION

To avoid damage to your hot water tank, ensure that the tank is full of water **BEFORE** using the hot water heater. The tank is full when water flows from a hot water faucet.

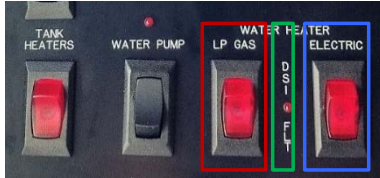
Your Gas Burner

- Your water heater's gas burner does not have a pilot light. In its place is an electronic ignition system called Direct Spark Ignition (DSI). As the name suggests, a spark is generated that, in turn, ignites the gas in the burner. The heat generated by the burning gas heats the water in the hot water tank.
- There are times when air gets in the tube that transports the gas from the propane tank to the burner.
 - When this happens, the air has to be replaced with gas so that the ignition system and burner will operate properly.
 - The process of removing the air is called purging and is accomplished through multiple attempts to ignite the burner – this is normal, particularly when using the water heater for the first time.
- While safety systems are in place, **it is imperative that the supply of gas to the coach be stopped if you smell gas in or around the coach. To do so, close the supply valve at the tank.**



PLUMBING SYSTEM**Water Heater**Operating Your Water Heater**LP (Propane) Gas Operating Instructions**

1. Open the propane supply (vapor) valve to supply the coach with gas.



2. Press the LP Gas switch on the command center panel to the "ON" position – the red button will illuminate. (See the switch in the red box above.)
 - If the LP Gas switch light remains on longer than 15 seconds, push the switch to the Off position.
 - Wait five minutes and try igniting the burner again by pressing the LP Gas switch to the On position. Again, if the switch light remains on longer than 15 seconds, press the switch to the Off position.
 - This procedure may have to be repeated several times to purge all the air from the gas supply line. This is normal.
 - If the electronic ignition system is not working properly, the DSI FLT (Direct Spark Ignition Fault) light will come on. (See the green box above.) Should this happen, DO NOT attempt to manually light the burner – call for assistance.

Electric Operating Instructions

1. CAUTION: Ensure that the tank is full of water before turning on the electric heating element. Failure to do so will likely cause the element to fail and its replacement IS NOT covered under warranty.
2. Press the ELECTRIC switch (see the blue box above) to the On position. The element will now heat the water in the tank.

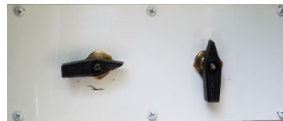
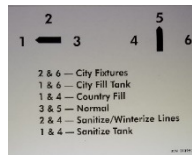
NOTE

For more continuous use of hot water, you can use both the electric element and the gas burner at the same time. This increases the rate of hot water recovery.

COLD WEATHER CONSIDERATIONS**Draining All The Water From The Coach**
Before You Begin

- **Empty** both your gray and black water tanks:
 - Go to a dumping station
 - Get the coach as level as possible at the dumping station
 - Clean and flush the toilet either before or during the process of emptying your tanks
- **Disconnect** from city water source if still connected
- **Level** the coach, it **MUST** be level to properly drain the water from the remaining components of your coach.
- **Open** all the Cold and Hot water faucets including the indoor and outdoor shower
- **Turn Off** the Hot water heater several hours before draining so that hot water is at ambient temperature
- **Enlist** someone to help you – this is easier with two people

Step 1. Check that the water management valves are in the “Normal” position.



Step 2. Ensure that both the LP gas and electric heat sources to the hot water heater are off and that any hot water in the tank has cooled.



Step 3. Open the fresh water tank low point drain. This is a direct drain for the fresh water tank only.

Step 4. Configure the remaining Low Point Drain valves as shown on the right.

- The valves only require $\frac{1}{4}$ turn – do not force them beyond $\frac{1}{4}$ turn.
- Turn all three valves counter clockwise. This will drain any remaining water from the hot, cold and water pump lines.

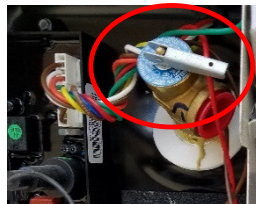


Closed

Open
For
Draining

COLD WEATHER CONSIDERATIONS**Draining All The Water From The Coach**

Step 5. Relieve any remaining pressure in the hot water tank and provide air for draining, by opening the pressure-temperature (P-T) valve. This is done by pulling up and flipping the handle over.



Step 6. Remove the hot water tank drain plug. All the water in the tank will drain. Note that In this picture the plug has been already been removed.



Step 7. Replace drain plug.

Step 8. Flip the P-T valve back to its original (operating) position.

NOTE

Oftentimes, particulates will accumulate on the bottom of the hot water tank. Before replacing the drain plug, consider flushing the tank while draining the water lines. To do so, purchase a cleaning wand from an RV parts store and attach it to your hose. Insert the wand through the drain hole and turn on the hose water. Simply turn the wand around until the flushing water is clear.

COLD WEATHER CONSIDERATIONS**Draining All The Water From The Coach**

Step 9. Remove fresh water filter cartridge. (See page 84 for more information.) When finished removing the filter reinstall the canister to the housing and be sure the valves are in the OPEN position.



Step 10. Turn the water pump to the ON position to help push out the water.



Step 11. Step on the foot pedal of the toilet until no more water comes out.



Step 12. Once water stops coming out of the Low Point Drains, turn off the pump.

Step 13. Close ALL Low Point Drain valves.



Closed position

COLD WEATHER CONSIDERATIONS**Winterizing Your Coach**
Introduction

Preparing your motorhome for cold-weather is very important. Failure to prepare your motorhome can cause water in the coach to freeze.

The motorhome should be winterized at the end of the camping season or when the motorhome will be exposed to temperatures that will fall at or below 32°F 0°C. Repairs due to freezing are not covered by warranty. The preferred method is to winterize the plumbing system with motorhome antifreeze.

Water in all these locations need to be addressed for complete winterization.

- Fresh water tank
- Internal hot and cold water lines
- Internal and external faucets/showers
- Hot water tank
- Sink and shower P-traps
- Black and gray water tanks

No commodity or product should be added to the freshwater system to ensure freeze protection other than RV antifreeze.

NOTE

The preferred method of winterizing your motorhome is described in this Guide. This method introduces RV specific antifreeze into the plumbing system.

Another method that some people use to winterize their motorhome is to blow out all the water in the plumbing system by using compressed air. While this is not covered in this Guide, it should be pointed out that applying air pressure to the water system should never be done without first opening at least one Hot and one Cold water faucet or Low Point Drain valve. Air pressure applied to a closed valve system, could potentially damage the seals and cause water leaks.

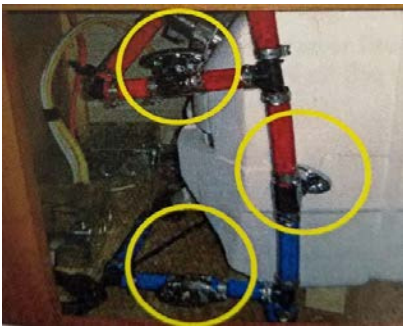
COLD WEATHER CONSIDERATIONS**Winterizing Your Coach**
Before You Begin

- Completely drain all the water from the coach as described on pages 87 through 89.
- Check that the valves for the hot water tank are positioned for by-pass – SEE BELOW.
- Check that the valves to the fresh water canister (with no filter) are open.
- Ensure the low point fresh water valve is closed.
- Get the short hose provided with your coach and attach it to the fresh water inlet.

Preparing Your Hot Water Tank for Winterization

Once you have drained the hot water tank as described in the previous section, you will need to position the hot water valves in the by-pass mode before winterizing the water system. These valves are located directly on the back side of the water heater and can be accessed by removing the wooden vent cover located in the kitchen area close to the floor. In normal operation, the top and bottom valves will be open and the middle valve will be closed.

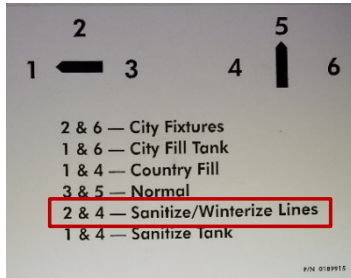
To place the system in by-pass, simply close the top and bottom valves and open the valve in the middle. This will now allow the antifreeze solution to circulate through the water lines without filling up the water heater tank.

NOTES

- This photo shows the valves in normal position. (Top and bottom are open and middle is closed.)
- Valves are open when the handle is in-line with the pipe; they are closed when perpendicular to the pipe.

COLD WEATHER CONSIDERATIONS**Winterizing Your Coach**

Step 1. Configure the water management system valves as shown below.



Step 2. Insert short hose into the RV winterization fluid container – NO OTHER “ANTI FREEZE” IS TO BE USED. A gallon container should be sufficient. To facilitate the process, place the container on a platform that raises the container about 2 feet off the pavement.

Step 3. Close all the hot water faucets, including the inside and outside shower, and OPEN all the cold water faucets, including the inside and outside showers.

Step 4. Turn on the water pump. If fluid is not pulled from the container, open the low point valve to prime the pump. Once the fluid begins to be drawn from the container, close the low point valve. Continue with this process until the fluid comes out of all the cold water faucets including the inside and outside showers. Press the toilet flush pedal until the fluid enters the bowl.

Step 5. Turn off the pump

Step 6. Close the Cold water faucets and OPEN the Hot water faucets

Step 7. Turn on the pump until fluid comes out of all the Hot water faucets

Step 8. Turn off the pump

COLD WEATHER CONSIDERATIONS**Winterizing Your Coach**

Step 9. Remove the short hose and replace the inlet cover

Step 10. Pour some of the fluid down each drain to protect the P-traps

Step 11. To prevent staining, wipe the RV antifreeze out of the sinks, shower or tub and toilet using a soft, dry cloth.

RV/DV 1