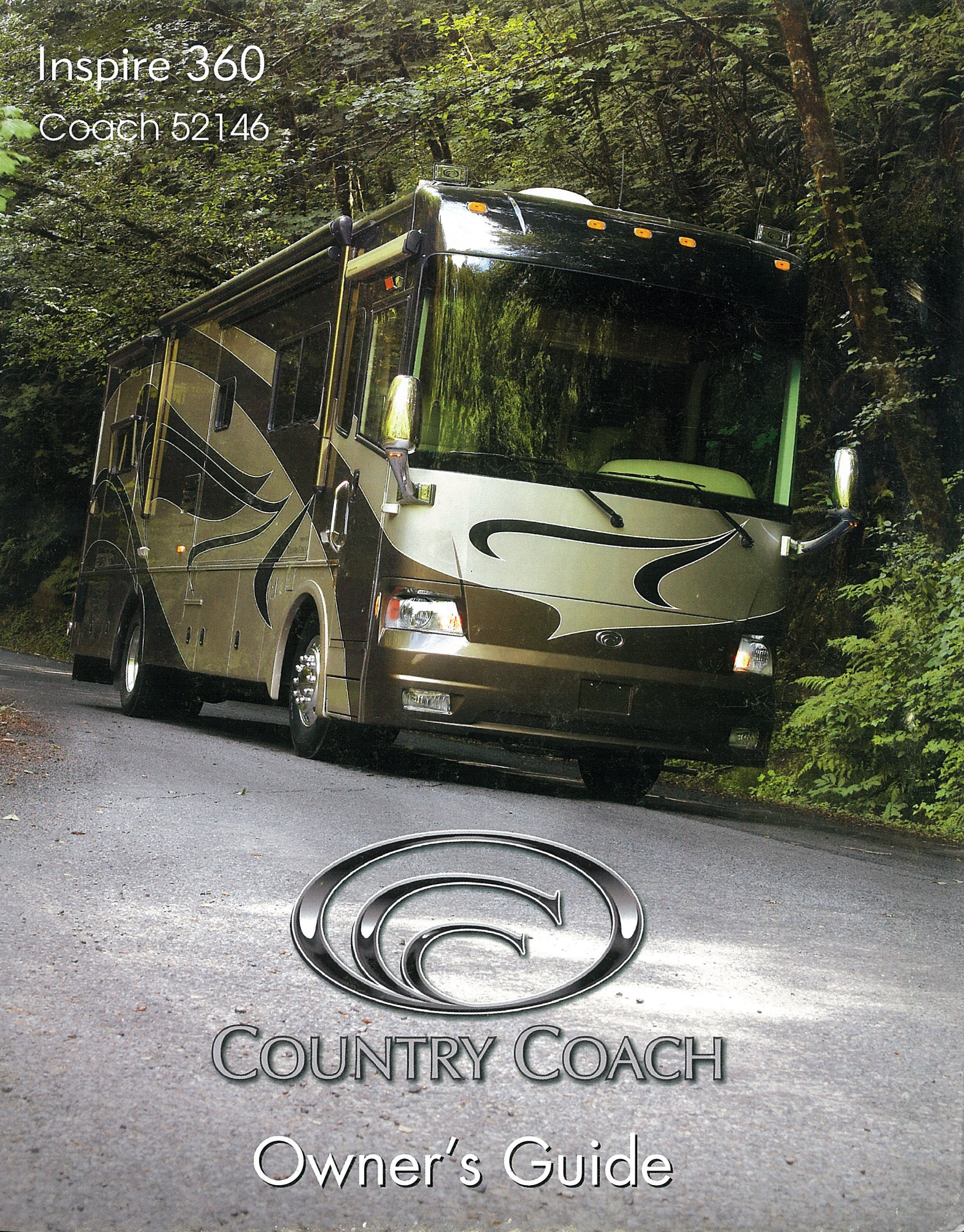


# Inspire 360

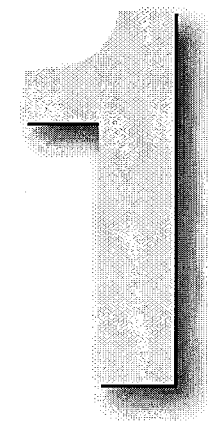
## Coach 52146

COUNTRY COACH

# Owner's Guide

# Before Leaving





# BEFORE LEAVING

**Note:** The letters **FE** refer to information unique to the Inspire 360 **Founder's Edition**.

Check the following items before leaving on a trip:

## Exterior

- Check for cracks, chips, or other obstructions in mirrors, windows, and lenses.
- For additional safety, turn off the gas valve on the LP tank (this disables all of the gas-powered appliances, except the refrigerator, which can also be operated electrically).
- Disconnect and store the power cord. Disconnect the television cable, telephone line, city water supply, and sewer system connection. Be sure all sewer compartments, storage compartment doors, and fuel compartment doors are closed and secured.
- Check fluid levels, including engine oil, battery water, radiator coolant, transmission fluid, power steering fluid, and hydraulic fluid. Refer to the Chassis part of this manual for information on checking fluid levels.
- Check the battery tray(s) to be sure they are locked in place.
- Check the storage areas to be sure all items are adequately secured.
- Check the (optional) storage roll-out tray(s) to be sure they are secured. Make sure bay doors are closed, latched, and locked.
- Be sure the computer-assisted leveling system is in travel mode.

> **! WARNING**
>
> **Before moving your coach, the green Travel indicator light must be on. Do NOT move the coach until the HWH leveling system is in Travel mode.**

- Inspect the area around and under the coach for obstructions, including the fender well areas. Inspect for correct travel height. Retract slide-out rooms, if applicable. Always check behind the coach before backing; use a spotter if necessary.
- Remove any wheel chocks.
- Retract, secure, and lock awnings in the travel position.
- Go to the front of the coach, and check that both of the low-beam headlights turn on and both of the four-way hazard flashers are working.

This would be a good time to verify that both turn indicators are functional.

- Pull the headlight dimmer switch and verify that the high-beam lights are working. Turn off the headlights and four-way hazard flashers.
- Turn on the parking, clearance, side marker, and identification lights.
- Make sure the hitch receiver tube is securely pinned with the retaining clip.

**! WARNING**

**Country Coach recommends that the weight of the tow load NOT exceed 10,000 pounds, and the tongue weight not exceed 600 pounds within eight inches of the coupling. Failure to observe these weight recommendations may result in damage to the vehicle as well as void the warranty for such damage.**

## Interior

- For safety, deadbolt the entrance door.
- Close all roof vents. Traveling with the roof vents open creates a suction that defeats the effectiveness of the over-the-road air conditioning and heater.
- Be sure loose items in the refrigerator are secure, the door is latched, and all heavy items are moved to the fixed shelving.
- Secure pocket doors.
- Secure all interior cabinet doors and drawers. Avoid putting heavy articles in overhead cabinets; they may fall out while traveling and cause injury.
- Clear items from counter and table tops, and store the sink and stove top covers in the space provided. Even small items can inflict serious injury during an accident.
- Cooking while traveling is not safe – hot liquids or food can cause injury during a sudden stop.
- Lower any roof-mounted television antennas or satellite dishes.
- Adjust the mirrors and seats before departing.
- Check all dash gauges and warning lights to be sure that all coach systems are functioning correctly.
- Check fluid levels for the diesel fuel, and the hydraulic system, as well as the fresh-, gray-, and black-water tanks.
- Check the operation of the brakes.
- Test the generator for proper operation.
- Ensure all passengers are using safety belts before leaving.

## Supplies

Keep the following supplies in the coach in case of an emergency:

- Typical emergency road kit, including flares, reflective triangles, an inexpensive 12 VDC test light, a digital multimeter, spare fuses and light bulbs, and a first aid kit
- Tool box containing screwdrivers of various types and sizes, open- or box-end wrenches ¼" to 1", vise grips, wire cutters, crimpers and strippers, pliers, adjustable wrenches, black electrical tape, duct tape, and an assortment of nylon cable ties. A good pair of work gloves is also a useful and welcome addition to any tool kit
- Tow cable or chain, 20,000 lb. minimum pull strength
- Four quarts of transmission fluid and eight quarts of motor oil
- One gallon propolyne glycol antifreeze/coolant for engine cooling system, such as Fleetguard ES Compleat
- Flashlight with extra batteries
- 25-foot potable water hose
- Extra black-water tank chemicals
- Wooden "strike-anywhere" matches
- A long-handled squeegee, a long funnel, and a two-gallon plastic bucket

## Walk-Around Inspection

### General

- Walk around and inspect the overall condition of the coach.
- Clean all lights, reflectors, and glass.
- Check all wheels and rims:
  - — Condition of wheel and rim: no sign of misalignment, no missing, bent, or broken studs or lugs. Damage to rim edges may develop into cracks later.
  - — Use a wrench to test rust-streaked lug nuts; this may indicate looseness.
  - — Make sure lug-nut covers are securely fastened. Check tires and see that the pressures are set to the tire tag specifications. (See also Country Coach Tire Inflation Policy later in this chapter.) Check tires for wear and damage.
- Tires – check for:
  - — Proper inflation - to tire tag specifications (Also see **Country Coach Tire Inflation Policy** later in this chapter)
  - — Unusual appearance of the tread or sidewalls, such as separation at seams, bead, in between tread ribs, or bulges in the sidewalls

— Road debris, rocks, pieces of metal, or other foreign objects wedged into the treads and between the dual tires

— Valve stems and caps OK

- Fuel tank:

— Not damaged or leaking

— Cap(s) on and secure

— Overflow valve vent tube damage-free and clear of obstructions

### Left Front Side

- Driver's windows should be clean.
- Door latches or locks should work properly.
- Left front suspension:

— Shock absorber condition - have worn or leaking shocks replaced.

- Left front brake:

— Condition of brake hoses and connections - service and/or replace as necessary.

### Front

- Condition of front suspension
- Condition of steering system:

— No loose, worn, bent, damaged, or missing parts

— With the engine off, attempt to turn the steering wheel to test for looseness in the system.

- Condition of windshield/wipers:

— Check windshield for damage, and clean if dirty

— Check wiper arms for proper spring tension

— Check wiper blades for damage, stiff rubber, and security. If dirty, clean with special wipes designed for this purpose.

- Lights and reflectors:

— Headlights, parking, clearance, and identification lights are clean and operating.

— Reflectors are clean; left and right turn signals – clean and operating.

- Mirrors – check for:

— Damage to the mirror housing

— Damage to the glass or reflective surface

— Correct adjustment for proper visibility, prior to leaving

## Right Front

- Driver's windows should be clean.
- Door latches or locks should work properly.
- Right front suspension:
  - — Shock absorber condition - have worn or leaking shocks replaced.
- Right front brake:
  - — Condition of brake discs and hoses - service and/or replace as necessary.

## Right and Left Rear

- Tires same size and type: not mixed radial and bias ply
- Wheel bearing/seals: not leaking
- Check engine belts and hoses for cracks or tears.
- Check for foreign objects stuck between dual tires.
- Suspension:
  - — Axles not leaking oil
  - — Worn or leaking shock absorbers
  - — Check for fluid beneath the coach suspension components
- Brakes:
  - — Any required service should be performed by qualified service technicians only.
  - — Condition of hoses: look for cracks, leaks, or any wear due to rubbing
- Lights and reflectors:
  - — Side-marker lights and reflectors: clean and operating

## Rear

- Engine compartment
  - — Rear of engine: not leaking
  - — Transmission: not leaking
  - — Exhaust system: secure, not leaking or touching wires
  - — Frame and cross members: no bends or cracks
  - — Air lines/electrical wiring: secure from snags, rubbing, and wear

- Lights and reflectors:
  - — Clearance and identification lights: clean, operating, and proper color
  - — Reflectors: clean and proper color (red at rear)
  - — Taillights: clean, operating, and proper color (red at rear)
  - — Rear turn signal lights: clean, operating, and proper color (amber or red)
- License plate(s): clean, secured, lighted, and up to date
- Splash guard(s): properly fastened, not damaged, dragging on the ground or rubbing tires

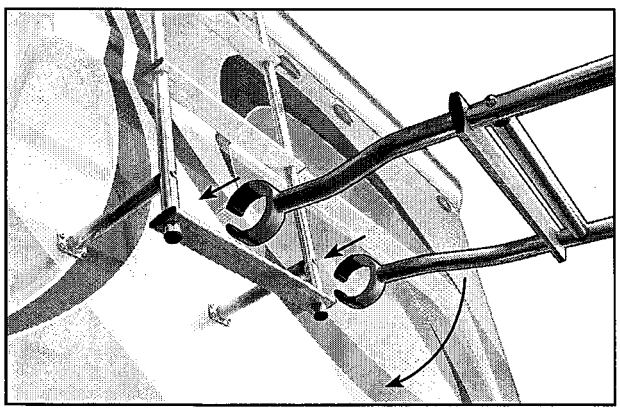


Figure 1.1
Ladder extension attachment

### Rear Ladder with Universal Extension (option)

The optional rear ladder enables access to the roof and the components found there, such as sky lights, vents, antennas, and the air horns. To reach the main part of the ladder, a "universal" extension is located in one of the storage bays. As diagrammed in **Figure 1.1**, rotate the extension to the horizontal position and slip the C-shaped ends over the lower step of the main ladder. Then lower the extension until it rests against the coach at the bottom.

### Parking Brake

**To check parking brake operation** (in an open and clear area)**:**

1 Fasten safety belt.

2 Allow the vehicle to move forward slowly.

3 Apply parking brake. If the vehicle does not stop, the parking brake may be faulty and should be checked.

## Engine Operation

### Before Starting the Engine

- Perform the engine pre-trip inspection and daily maintenance checks as required in your chassis owner's manual.
- In colder climates, it may be advisable to pre-heat the engine before starting. Find the 120 VAC plug in the back of the coach, located near the trailer hitch. Plug it into a standard household 120 VAC outlet. GFCI protection on that outlet would be prudent as the heater would typically be operated in an outdoor environment. The block heater power requirements are 120 volts, 1500 Watts, at 12.5 amps, about the same as a typical hair dryer.

The heater should be plugged in for at least 2 hours before attempting an engine start. The coolant temp gauge should rise faster than normal once the engine is started.

- Ensure all occupants take their seats and buckle their safety belts.
- Turn off the headlights and accessories.

## Starting Your Engine

1 Turn the ignition switch to **on**, and make sure that the transmission is in neutral (N), and the parking brake is set.

2 Rotate the key clockwise to the start position. When the engine starts, let go of the key. The idle speed reduces as the engine warms.

**! CAUTION**

**Do <u>not</u> crank the engine for more than 30 seconds at a time; wait two minutes after each try to allow the starter to cool. Failure to do so could cause starter damage.**

**! WARNING**

**Do NOT drive the unit until the oil pressure gauge reading is normal.**

**If there is no oil pressure indicated on the oil pressure gauge in the dashboard display, shut down the engine immediately to prevent serious damage. Do not operate until the cause of the problem has been corrected.**

## Engine Break-In Period

Your engine must pass a full-load operation test on a dynamometer before shipment from the chassis manufacturer, thereby eliminating the need for an extended break-in period. Only an initial operational check is necessary. Proper operation and maintenance are key factors in obtaining the maximum life and economy from your vehicle engine. Please follow the directions in your chassis operation and maintenance manual for trouble-free engine operation.

## Engine Shutdown

1 With the vehicle stopped, apply the parking brake and reduce the engine speed to low idle.

2 Place the transmission range selector in N (Neutral).

3 Turn off the ignition key to shut down the engine.

### Service Brakes

**To check service brake operation:**

1 Check that the system air pressure gauge is indicating the minimum required air pressure (85 psi)

2 Travel about 5 mph; apply the brakes.

3 Push brake pedal firmly.

"Pulling" to one side may mean brake adjustment is required.

Any unusual brake pedal "feel", noises, or delayed stopping may indicate further inspection of the brake system is required.

## Backing Procedure

**Use care when backing your coach:**

- Check for obstructions behind the coach.
- Check the entire backing route for obstacles.
- Watch the backup monitor to ensure a clear backing route is available. **Use another person as a spotter!** (Small 2-way radios or a cellphone for passenger-to-driver communication are helpful in this instance.)

## Kwikee Step Operation

The following table outlines the operation of your coach's entry step.

| Conditions | Action | Result |
|---|---|---|
| Ignition key **off**, Step switch **on** | Open door | Step extends |
| | Close door | Step remains extended |
| Ignition key **off**, Step switch **off** | Open door | Step extends |
| | Close door | Step retracts |
| Ignition key **on**, Step switch **on** or **off** | Open door | Step extends |
| | Close door | Step retracts |

**! CAUTION**

**Watch your step when entering or exiting your coach. Before operating the step, be sure there are no external obstructions that would prevent extending the step safely.**

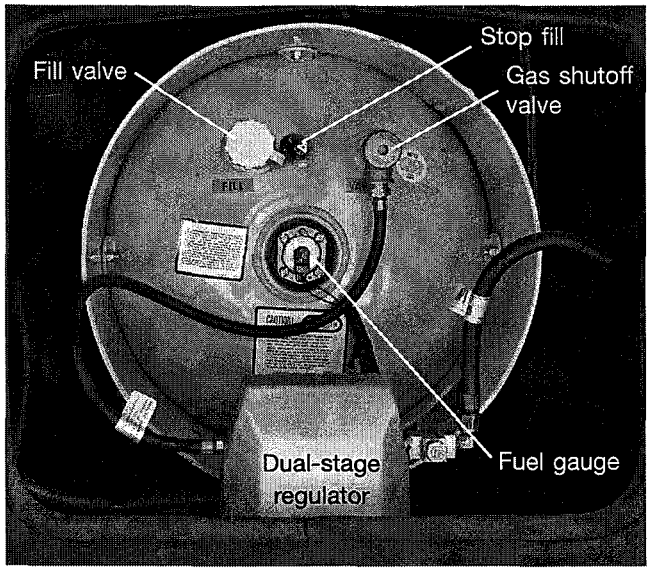



Figure 1.2
LP gas tank (Inspire 360)

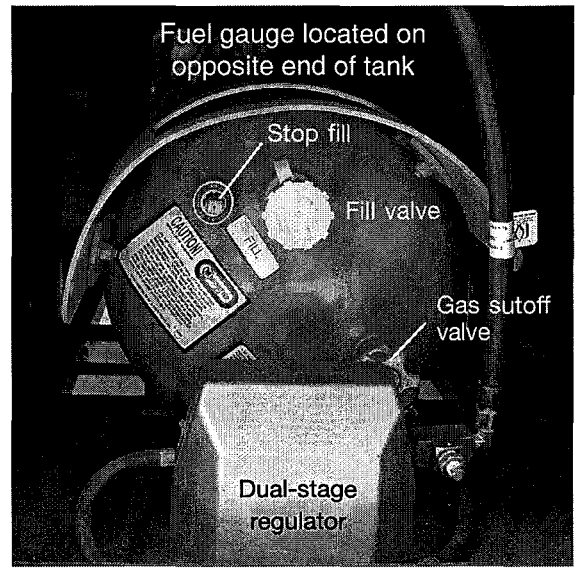



Figure 1.3
LP gas tank (Inspire 360 FE)

## Smoke and Gas Safety

### LP Gas Information

**! WARNING**

- **Do NOT place LP gas containers inside the vehicle. LP gas containers are equipped with safety devices that relieve excessive pressure by discharging gas to the atmosphere.**
- **It is NOT safe to use cooking appliances for comfort heating. Cooking appliances need fresh air circulation for safe operation.**

**Before operation:**

- Open overhead vents or turn on the exhaust fan (not to include microwave fan).
- Open a window to provide an adequate supply of fresh air. Unlike houses, the oxygen supply in a motorcoach is limited. Proper ventilation when using the cooking appliance(s) helps prevent danger of asphyxiation. The danger of asphyxiation increases as cooking appliances are used for longer periods of time.

**! WARNING**

- **Do Not fill container(s) to more than 80% of capacity. Overfilling the LP gas container may result in uncontrolled gas flow which can cause fire or explosion.**

**! WARNING**

- **Portable fuel burning equipment, including wood and charcoal grills and stoves, should NOT be used inside the coach. Doing so may cause fire or asphyxiation.**
- **Do not store LP gas containers, gasoline or other flammable liquids inside the vehicle: fire or explosion may result.**
- **To respond to the smell of gas:**
  **1 Extinguish all open flames, pilot lights, and smoking materials.**
  **2 Do NOT use electrical switches.**
  **3 Shut off the gas supply at the tank valve(s) or gas supply connection.**
  **4 Open doors and other ventilation openings.**
  **5 Leave the area until the odor clears.**
  **6 Have the gas system checked and leakage source corrected before using it again.**

## LP Gas Detector

The LP gas detector (**Figure 1.3**) alerts coach occupants to the presence of free gas within the coach. Since LP gas is heavier than air and the gas powered appliances are clustered in the kitchen area, the detector is located near floor level within the kitchen.

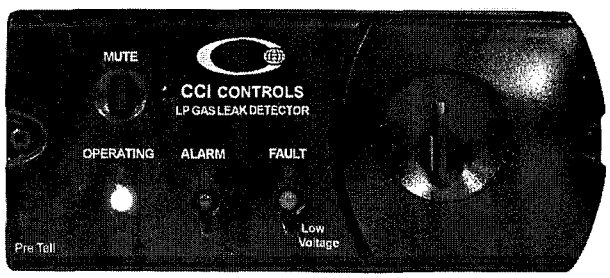



Figure 1.3
LP gas detector

The LP gas detector receives power from the house battery through a circuit protected by a 3-amp fuse.

The detector draws very little energy and continues to operate until the battery is drained to as low as 7 volts. If the supply battery is drained below this, the detector cannot be reset until the battery charge is restored to a minimum of 10 VDC.

When the gas detector is switched on (whenever power is supplied to the coach interior) the green "Operating" LED illuminates. There is then a 60-second delay before the unit begins monitoring for any combustible vapors. When gas is detected by the sensor, a pulsating alarm sounds, and the red "Alarm" LED illuminates. The alarm does not go off until either the gas has dissipated or the **Mute** button is pressed. However, if gas is still present, the alarm returns after 60 seconds.

**! WARNING**

**When the alarm sounds, open all available windows and doors to ventilate the area, and turn off the gas at the tank. Do NOT re-enter the affected area until the alarm stops sounding.**

If the LP gas detector has not been used for a long period of time, or the power source has been disconnected, the alarm sounds. Reset by switching the detector off for a few seconds, then back to the on position.

If the alarm continues after two or three resets, follow these steps:

1 **Check the battery to be sure it is sufficiently charged.**

2 **Air out the coach and fan the sensor in the gas detector. The detector is also sensitive to fumes such as alcohol, hair spray, carbon monoxide, deodorants, and some cleaning agents.**

3 **If the alarm continues to sound, have a qualified LP gas dealer or RV service center test for gas leaks and make necessary repairs.**

**! NOTICE**

**A manual shutoff valve to the cooktop has been incorporated into the LP gas line and is located below this unit.**

For more information, see the LP gas detector card located in your Coach Information Kit.

## Fire Safety Devices

For your safety and convenience, Country Coach installs at least one dry-chemical type fire extinguisher (Class 1:10 BC), one battery-powered smoke detector, and one hard-wired carbon monoxide detector as standard equipment.

The fire extinguisher is located near the entry door. The smoke detector is mounted within the galley/dinette area and the carbon monoxide detector is installed in the dinette area.

All of these safety devices have instructions for inspection, maintenance, and use printed on their labels. For your safety, it is strongly suggested that you become completely familiar with each device.

## Carbon Monoxide Detector

Carbon monoxide (CO) is a very dangerous gas that is odorless, colorless, tasteless, and nonirritating. For your safety and convenience, all Country Coach motorcoaches come equipped with a carbon monoxide detector (**Figure 1.4**).

This solid-state infrared sensor device is typically mounted on the underside of the cabinets or on a wall near mid coach. It has a standard 9-volt battery as backup in case power to the device is cut off.

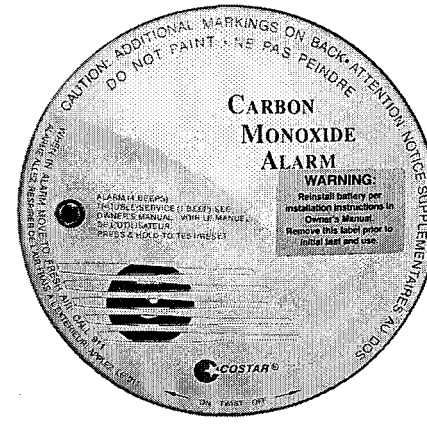



Figure 1.4
Carbon monxide detector (typical)

**Operation:**

**Normal:** Red LED flashes every 30 seconds, indicating operation.

**Alarm:** Red LED flashes and pulsating horn sounds.

**Trouble/Service:** Red LED flashes and horn beeps once every 30 seconds.

**Test:** One beep, followed by LED flashing 4 to 5 times, followed by 2 alarm signals. Test the CO detector weekly.

For more information, see the carbon monoxide detector information located in your Coach Information Kit.

**! NOTICE**

**It is very important that the CO detector be tested after the coach has been in storage, before each trip, and at least once each week during use. See the carbon monoxide detector information for complete testing procedures.**

## Emergency Exits

Recreational vehicles are required to have a minimum of two emergency exits. Please take the time to familiarize yourself with the alternate emergency exit located in the rear bedroom on the driver's side. **Note:** It is clearly identified as EXIT.

It is equipped with either one or two handles that are colored red. To gain egress, you must either pull or twist the handle(s), then push out the window.

## Traveling Safely

Your unit was designed to be open and spacious. While this provides delightful aspects to traveling, it also requires additional safety awareness. All loose objects can become potentially dangerous projectiles in the event of sudden stops and maneuvers. To eliminate this hazard, be sure all loose objects are properly secured. Closets, drawers, and cabinet doors are provided with latches for this purpose.

Before each trip, check all open areas to verify that gear has been properly stowed. Check all appliances, doors, and drawers for proper locking or latching. All passengers should sit in designated seating areas only. Fasten the safety belt by engaging the buckle, and adjust the belt by pulling the excess through the clamping mechanism at the buckle. The belt should be snug, with the buckle positioned for your comfort and easy access.

## Safety Belts

Due to the unique configuration of recreational vehicles, not all seating positions are equipped with safety belts. Those seats not equipped with safety belts should not be occupied while the vehicle is in motion. Since these are not equipped with safety belts, they provide no protection in the event of a sudden stop, maneuver, or an accident.

While in transit, all occupants must sit in seats equipped with safety belts. For your own safety, do not get up and move around the coach while it is in motion.

The following instructions describe how to wear safety belts properly. (See **Figure 1.5**, page 1.13)

**To use the lap/shoulder safety belt:**

1 Close and lock the entry door.

2 Adjust the seat so you can sit up straight.

3 Pull the belt across you. Don't let it get twisted.

4 Push the latch plate into the buckle until it clicks. If the belt stops before it reaches the buckle, tilt the latch plate and keep pulling until you can buckle it. If the belt is not long enough, see the **Safety Belt Retrofit** section (pg. 1.15).

5 Make sure the release button on the buckle faces upward or outward so you would be able to unbuckle it quickly, if necessary.

**! WARNING**

**A twisted belt can seriously injure you. In a crash, you wouldn't have the full width of the belt to spread impact forces. If a belt is twisted, make it straight so it can work properly or ask your dealer to fix it. To unlatch the belt, push the button on the buckle. The belt should retract out of the way.**

6 Wear the belt low and snug on the hips, just touching the thighs. In a crash, this technique applies force to the strong pelvic bones and you are less likely to slide under the lap belt. If you were to slide under it, the belt would apply force to your abdomen. This could cause serious or even fatal injuries.

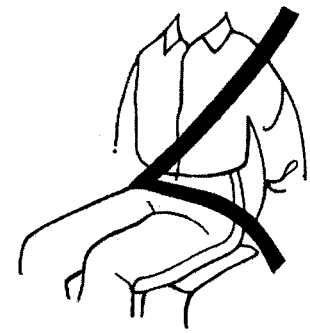
7 Press the red colored button on the buckle to unlatch the belt.

**! CAUTION**

**There are special things to know about safety belts and children. And there are different rules for babies and smaller children. If a child is riding in your coach, refer to the section for children. Follow the instructions there for everyone's protection.**

## Children

Everyone in the motorcoach needs protection! That includes infants and all children smaller than adult size. In fact, the law in every U.S. state and Canadian province specifies that children beyond a specific age and weight must be restrained while in a vehicle.



**Correct seat belt placement**
Lap belt worn low across hips and shoulder belt placed properly on shoulder.

**Incorrect seat belt placement**
Belt should never be worn with the shoulder belt behind the back.

**Incorrect seatbelt placement**
Shoulder belt should never be worn across chest and under arm.

Figure 1.5
Proper use of seat belt

### Smaller Children and Babies

Smaller children and babies should always be restrained in a child or infant restraint. The instructions for the restraint note whether it is the correct type and size for your child. A very young child's hip bones are so small that a regular belt does not properly stay low on the hip. Instead, the belt ends up over the child's abdomen. In a crash, the belt would apply force over the child's abdomen, which could cause serious or fatal injuries. Be sure that any child small enough for one is always properly restrained in a child or infant restraint.

**! WARNING**

**Never hold a baby in your arms while riding in a vehicle. A baby doesn't weigh much — until a crash. During a crash a baby becomes so heavy you can't hold it. For example, in a crash at only 25 mph (40 km/h), a 12-pound (5.5 kg) baby suddenly becomes the equivalent of 250 pounds (110 kg) on your arms. Result: The baby would be almost impossible to hold. Always secure the baby in an infant restraint.**

Child restraint systems are designed to be secured in the vehicle by lap belts and should be secured in accordance with the restraint system manufacturer's instructions.

**! NOTICE**

**Never allow two children to wear the same belt. The belt can't properly spread the impact forces. In a crash, the two children can be crushed together and seriously injured. Only one person must use a safety belt at a time!**

### Larger Children

The vehicle's safety belts should be worn by children who have outgrown child restraints. Accident statistics show that children are safer when belted in, but they need to use the safety belts properly. Children who aren't buckled up can be thrown out in a crash or can strike other people. Wherever the child sits, the belt should be worn low and snug on the hips, just touching the child's thighs. This applies belt force to the child's pelvic bones in a crash.

### Safety Belt Use During Pregnancy

Like all occupants, expectant mothers are more likely to be seriously injured if they do not wear safety belts. A pregnant woman should wear the lap belt as low as possible throughout the pregnancy. The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it is more likely that the fetus won't be injured in a crash. For pregnant women - as for anyone - the key to making safety belts effective is wearing them properly.

### Safety Belt Retrofit

If the vehicle's safety belt fastens around you, use it. But if a safety belt is not long enough to fasten, your motorcoach can be retrofitted with an extended-length safety belt. Your dealer or other authorized Country Coach service center will order a custom-length safety belt that works properly and comfortably for you. Be sure to get extended safety belts for each seat you may occupy while traveling.

> **! WARNING**
>
> **Torn or frayed belts may not protect you in a crash. They can rip apart under impact forces. If a belt is torn or frayed, replace it immediately. The model number on the replacement belt must be listed on the safety belt you want to replace.**

### Checking Your Restraint System

Periodically, make sure all your belts, buckles, latch plates, retractors, and anchorage are working properly. Look for any loose parts or damage. If you see anything that might keep a restraint system from doing its job, have it repaired or replaced.

### Replacing Safety Belts After a Collision

After a very minor collision, your safety belts may still be in good working condition. But if the belts were stretched, as they would be if worn during a more severe accident, then new belts may be required. If belts are cut or damaged, replace them. Collision damage may also mean you need to have safety belt parts, like the retractor, replaced or anchorage locations repaired, even if the belt wasn't being used at the time of the collision.

Contact your selling dealer or authorized Country Coach service center for assistance in replacing the safety belt.

### Traveling with Pets

Traveling with the family pet may be enjoyable but RVs are typically not equipped to properly secure them. In an accident, unrestrained pets in the coach can be thrown around and become injured as well as injure other occupants. Specialty pet supply stores carry safety belts for some varieties of pets.

## Tire Safety

The tires selected for your motorcoach are a very complex and precisely-engineered product. To obtain the maximum safe use and best service out of your tires, it is helpful to understand the function of the tire. It is the combination of pressurized air and the tire's structural elements (sidewall, belts, etc.) that supports the vehicle and its contents. In addition, since the tire is the only contact that the vehicle has with the road surface, it must perform other functions such as traction for moving, stopping, and steering, as well as provide a cushion for the vehicle.

### The Importance of Air Pressure

The most important factor in maximizing the life of your tires is maintaining proper cold-tire inflation pressures. Driving on any tire that does not have the correct inflation pressure for the load of the vehicle is dangerous and may cause premature wear, tire damage, and/or loss of control of the vehicle. Maintaining correct tire inflation pressure is of the utmost importance and must be a part of regular vehicle maintenance.

**Under-inflation** causes a buildup of excessive heat. Under-inflation could result in sudden tire failure. A tire that is under-inflated also causes poor vehicle handling, rapid tire wear, and a decrease in fuel economy.

**Over-inflation** reduces the tire's footprint, or contact point with the road, thus reducing vehicle traction, braking capacity, and road handling. A tire that is overinflated for the load that it is carrying also contributes to a harsh ride and uneven tire wear and is more susceptible to impact damage.

**Federal law** requires that the tire's maximum load rating be molded into the sidewall of the tire. If you look there, you can see the maximum load allowed and the cold air inflation pressure required to carry that stated maximum load. Less air pressure restricts the tire to carry a lighter load. For your safety, always adhere to the Federal Tire Label for proper inflation numbers.

### When to Check Air Pressure

You should check your air pressure once a week when stationary and every day while traveling. If your vehicle is stored for any length of time, air pressure should be checked prior to storage. More importantly, check the pressure when the coach is removed from storage.

**Check your tires when they are cool.** The stated cold inflation pressure is based on an ambient temperature of 68°F.

**Using a tire gauge.** Country Coach recommends that you purchase a quality truck-style air pressure gauge. Some newer motorcoach wheels are designed such that a normal truck tire gauge needs to have a bend in it to reach the valve stem on the inside of the outer dual.

**What if you don't check your air pressure?** If you pick up a nail or screw while driving that creates a slow leak and causes some air pressure loss, you might eventually spot it if it's in a front tire or an outer dual. However, if it is an inner dual, the chances of spotting it without an air pressure check are very slim. If you begin driving without finding it, your outer tire is going to heat up from carrying double its load very quickly (in most cases, within a few miles) resulting in eventual tire failure. As you "pretrip" check your vehicle every "drive morning," include an air pressure check of your tires. Your safety is worth the extra few minutes!

### Tire Inspection

Your motorcoach tires should be inspected thoroughly at least once a year and any time you drive in rough or rocky terrain, or have your coach serviced. This inspection should include the outer and inner sidewalls, tread area, valve stems, and caps. Inspect for nails, cuts, bulges, fatigue cracks, weathering, and ozone cracking. Also, check the duals for objects lodged between them. See a tire dealer at once if there is anything found to be in question. Your tires should be thoroughly inspected by a tire expert at least once per year.

**! CAUTION**

**Wheel lug nuts must be retightened to proper torque specifications (consult your chassis owner's manual) at 50 miles and then at 500 miles of new vehicle operation (or after a wheel change) and at the intervals specified in the maintenance schedule. Failure to retighten wheel lug nuts as required could allow wheels to come off while the vehicle is in motion, causing loss of control and possible collision.**

### Changing a Flat Tire

Even the best drivers can drive over a nail and the best tires can pick up that nail or screw and go flat. Whenever this occurs, do not attempt to jack up the unit and change it yourself. The motorcoach wheels and tires are extremely heavy and lug nut torque requirements make it advisable to summon professional help. We suggest calling Coach Net or your auto club for assistance.

**! WARNING**

**Your coach is not equipped with a spare tire or a jacking device.**

### Tire Repair

If you pick up an object that causes a flat with your coach tire, the repair must be made to the inside of the tire. To do this, the tire needs to be dismounted and inspected on the inside of the casing for any other damage that the object may have caused. In all cases, a service professional should remove a tire from the wheel to inspect for internal damage.

### Life Span of an RV Tire

Miles alone do not measure the life of a tire used on an RV. Your motorcoach tire life depends on driving habits, driving conditions, geography and the age of your tires. You can determine the age of the tire by looking at the DOT number (**Figure 1.6**) molded on the side wall of the tire. The last two digits on the right are the last two digits of the year in which it was manufactured.

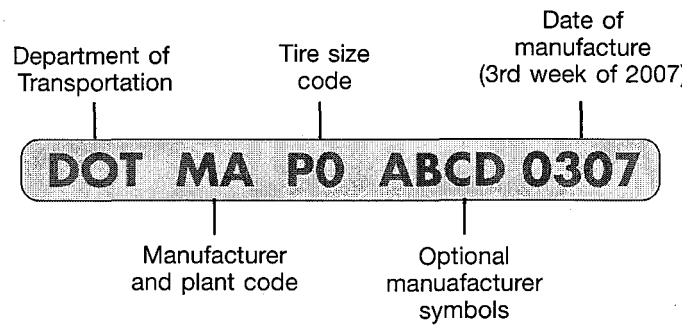



**Figure 1.6**
**DOT number on tire sidewall**

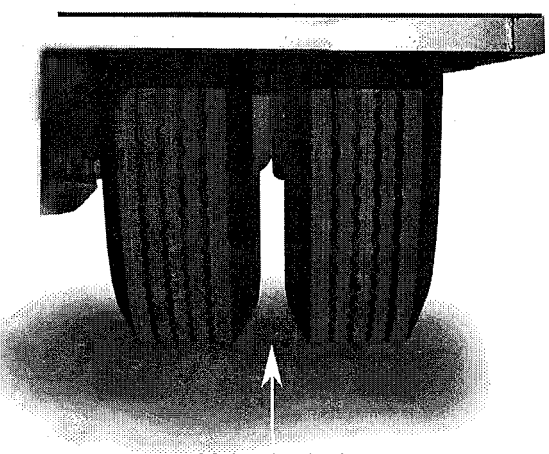



**Figure 1.7**
**Dual spacing/clearance**

With the average (non-full timer) motorcoach driving 5,000 miles per year, it could take close to 20 years to wear out the tires. In this case, the age of the tire is more important than the amount of tread depth remaining. Just like your fan belt and radiator hose, the rubber in your tire ages. In cooler, clean air locations, the expected tire life is longer than in high-temperature, high-smog areas. As your tires age, you should inspect them more frequently.

### Selecting Replacement Tires

One of the most important equipment purchases that you make is the replacement tires for your coach.

It is important that replacement tires for the rear duals do not change the designed clearance space between the tires or the load rating of the duals (**Figure 1.7**). Be sure that the wheel width is compatible with the new size. Consult a tire professional for more information.

**! NOTICE**

**There are some critical areas to consider when selecting replacement tires for your motorcoach. For the most reliable information, see a tire dealer.**

## Country Coach Tire Inflation Policy

### Tire Industry Changes

The tire industry, as a whole, has changed its traditional stance on adjusting cold tire inflation pressure for RV tires installed on recreational vehicles and busses. Previously, tire manufacturers supported a policy where tire inflation could be adjusted according to the actual loaded weight of the vehicle. Now, the major tire manufacturers recommend that medium duty truck tires be maintained at the pressure that corresponds to the Gross Axle Weight Rating for the axle to which they are mounted. To make this recommendation uniform across the industry, tire manufacturers strongly urge the consumer to keep all tires inflated to the pressures recorded on the Federal Tire Label.

### Federal Tire Label Information

The motor home's important tire information is contained on the Federal Tire Label (**Figure 1.8**, page 1.19), which is located on the transmission shift panel near the driver's left knee. This label includes recommended tire size, wheel size, and cold tire inflation pressure for each tire position on the motorcoach.

The cold tire inflation pressure established for each tire of the motorcoach is based on the weight an axle is rated to carry (Gross Axle Weight Rating - GAWR) and in accordance with Federal Motor Vehicle Safety Standard 120 (Code of Federal Regulations, Title 49, Part 571 section 120). The cold tire inflation pressure weight capacities of all tires on an axle, when added together, must equal or exceed the GAWR for that axle.

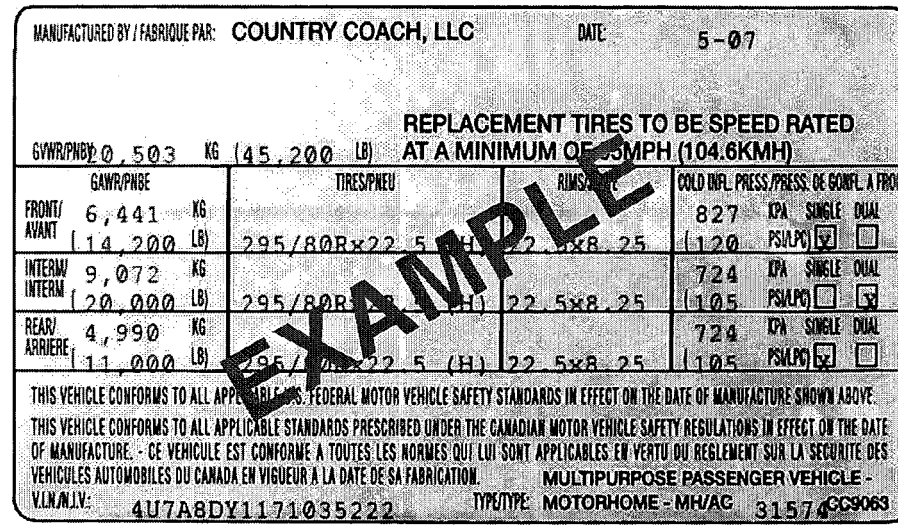



**Figure 1.8**
**Federal Tire Label (example)**

### Tire Inflation

Country Coach recommends that the cold tire inflation pressures should at all times be maintained at the inflation pressure(s) recorded on the Federal Tire Label. There are no acceptable circumstances where tire inflation pressure(s) should be reduced below that pressure recorded on the Federal Tire Label.

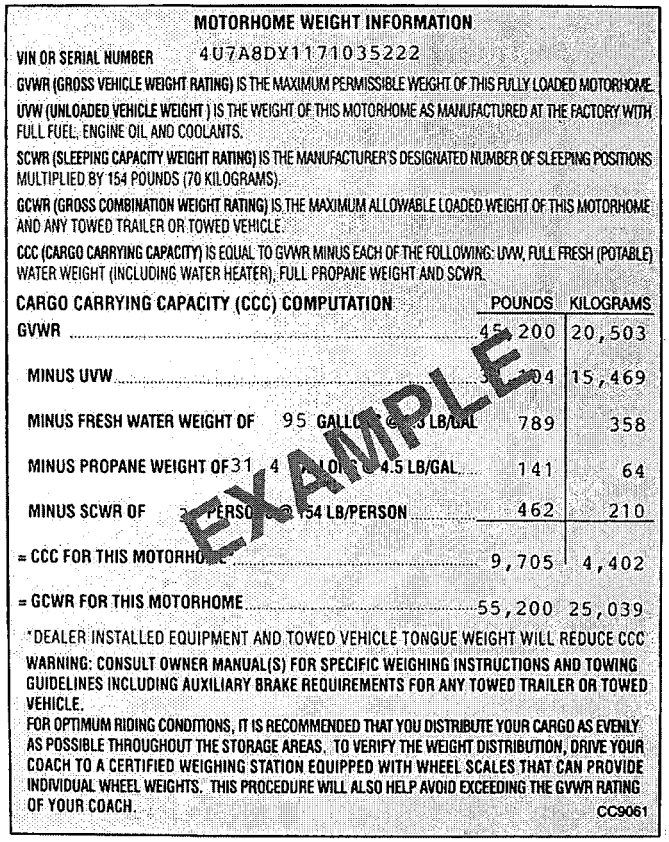
### Driving Speed

The speed rating of a tire, if applicable, is an important piece of information also contained on the Federal Tire Label (**Figure 1.8**) for this motorcoach. The speed rating is established by the tire manufacturer and is the maximum speed at which the tire may be safely operated. Tires designated as medium duty truck tires have less resistance to heat build-up when compared to automobile tires. Consequently, medium duty truck tires are more prone to internal damage and fatigue if driven under-inflated, and/or overloaded, or in excess of their speed rating.

Driving at sustained high speeds with under-inflated and/or overloaded tires may lead to a sudden loss of air pressure in a tire which could result in vehicle damage and/or the loss of vehicle control. Driving a tire in excess of the tire's speed rating, even if correctly inflated, may also result in a sudden tire failure.

## Loading the Motor Home

Each motor home contains a Weight Information Sticker (**Figure 1.9**, page 1.20) located on the inside of the vanity overhead cabinet door. This sticker provides important information regarding the amount of Cargo Carrying Capacity (CCC) of the motor home. It is the owner's responsibility not to exceed this capacity in any way. The GVWR or any GAWR of the motor home must also be observed when loading personal items. It is very critical to balance the storage of personal items added throughout the motor home by monitoring weight placed on individual wheel positions. Weight added to an axle should be divided as evenly as possible across the tires on that axle and not exceed the GAWR.



MOTORHOME WEIGHT INFORMATION

VIN OR SERIAL NUMBER 4U7A8DY1171035222

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).

GCWR (GROSS COMBINATION WEIGHT RATING) IS THE MAXIMUM ALLOWABLE LOADED WEIGHT OF THIS MOTORHOME AND ANY TOWED TRAILER OR TOWED VEHICLE.

CCC (CARGO CARRYING CAPACITY) IS EQUAL TO GVWR MINUS EACH OF THE FOLLOWING: UVW, FULL FRESH (POTABLE) WATER WEIGHT (INCLUDING WATER HEATER), FULL PROPANE WEIGHT AND SCWR.

| CARGO CARRYING CAPACITY (CCC) COMPUTATION | POUNDS | KILOGRAMS |
|---|---|---|
| GVWR | 45,200 | 20,503 |
| MINUS UVW | 34,004 | 15,469 |
| MINUS FRESH WATER WEIGHT OF 95 GALLONS @ 8.3 LB/GAL | 789 | 358 |
| MINUS PROPANE WEIGHT OF 31.4 GALLONS @ 4.5 LB/GAL | 141 | 64 |
| MINUS SCWR OF 3 PERSONS @ 154 LB/PERSON | 462 | 210 |
| = CCC FOR THIS MOTORHOME* | 9,705 | 4,402 |
| = GCWR FOR THIS MOTORHOME | 55,200 | 25,039 |

EXAMPLE

*DEALER INSTALLED EQUIPMENT AND TOWED VEHICLE TONGUE WEIGHT WILL REDUCE CCC

WARNING: CONSULT OWNER MANUAL(S) FOR SPECIFIC WEIGHING INSTRUCTIONS AND TOWING GUIDELINES INCLUDING AUXILIARY BRAKE REQUIREMENTS FOR ANY TOWED TRAILER OR TOWED VEHICLE.

FOR OPTIMUM RIDING CONDITIONS, IT IS RECOMMENDED THAT YOU DISTRIBUTE YOUR CARGO AS EVENLY AS POSSIBLE THROUGHOUT THE STORAGE AREAS. TO VERIFY THE WEIGHT DISTRIBUTION, DRIVE YOUR COACH TO A CERTIFIED WEIGHING STATION EQUIPPED WITH WHEEL SCALES THAT CAN PROVIDE INDIVIDUAL WHEEL WEIGHTS. THIS PROCEDURE WILL ALSO HELP AVOID EXCEEDING THE GVWR RATING OF YOUR COACH.

CC9061

**Figure 1.9**
**Motorhome weight information label (example)**

Unevenly distributed personal items in a motor home adversely affects the performance of tires, especially if the coach is overloaded. The maximum weight of each axle is recorded on the Federal Tire Label and should be strictly observed.

## Dangers of Overloading

Driving an overloaded vehicle is extremely dangerous. In addition to possibly causing problems with tires, wheels, and air springs, failure of the brakes, drive train, and wheel bearings can occur. Also, an overloaded motorcoach uses more fuel, is harder to handle, and can lead to driver fatigue. If any one component should fail, it could result in vehicle damage and/or loss of vehicle control. To prevent those dangers, some states require RVs to use the Highway Patrol weight scales to check for overloaded axles. Citations can be issued for overloaded coaches.

## Weight Definitions

Proper loading and weight distribution of your coach is of critical importance since it affects drive handling and braking. Your coach chassis was designed to carry and tow a specific weight. Overloading or exceeding these limitations might place you in danger by reducing your braking capacity. It also places undue stress on components and can lead to shortened service life or premature failure.

- **CCC** (Cargo Carrying Capacity) is equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water in the water heater), full LP gas weight, and SCWR. The specific cargo carrying capacity for your motorcoach can be found in the bathroom or vanity overhead cabinet (**Figure 1.9**).
- **GAWR** (Gross Axle Weight Rating) is the maximum weight that a specific axle is designed to carry. The sum of axle weight ratings must never exceed GVWR.
- **GCWR** (Gross Combined Weight Rating) is the maximum allowable loaded weight of this motorcoach and any towed trailer or vehicle.
- **GTW** (Gross Towed Weight) is the maximum allowable loaded weight that this motorcoach has been designed to tow.

- **GVW** (Gross Vehicle Weight) is the actual weight of your coach when fully loaded and driven onto the scales and is not a limit or specification. It is the total gross weight of the coach with accessories, full fresh (potable) water weight (including water heater), fuel, cargo plus driver and occupants.
- **GVWR** (Gross Vehicle Weight Rating) is the maximum permissible weight of this fully loaded motorcoach.
- **MTW** (Maximum Tongue Weight) is the maximum vertical load that the towed vehicle applies to the hitch on the motorcoach.
- **SCWR** (Sleeping Capacity Weight Rating) is the manufacturer's designated number of sleeping positions multiplied by 154 pounds (70 kilograms).
- **UVW** (Unloaded Vehicle Weight) is the weight of this motorcoach as manufactured at the factory when it is full of fuel, engine oil, and coolants.

**! CAUTION**

**Do NOT exceed the GVWR or the GAWR of your motorcoach. Exceeding these ratings:**

- **Reduces your warranty protection**
- **CAUSES undesirable handling characteristics**
- **Creates a safety hazard**

The Weight Information Label (**Figure 1.9**, page 1.20) on your coach is typically located in the bathroom vanity overhead cabinet. This label supplies you with important weight information regarding the Cargo Carrying Capacity (CCC) of your vehicle. In addition, your coach is labeled in accordance with Federal Motor Vehicle Safety Standards (FMVSS) to indicate safe limits with each axle and the total vehicle, when loaded to a specific tire inflation pressure. The Federal Tire Tag (**Figure 1.8**, page 1.19) can be found on the transmission shifter panel, to the left of the driver's seat. The tires, wheels, axles, axle bearings, air springs, or other components of the vehicle limit these maximum axle and load weight ratings. Every motorcoach — even of the same make and model — varies in actual loaded axle weights because of different options and personal loads. While your Gross Vehicle Weight (GVW) should be below the GVWR, you must weigh your coach in a loaded condition to identify its actual weight. Weigh separately the front axle, the total unit, and then the rear axle (including the tag axle). If possible, also weigh the left and right sides separately.

If you are towing a vehicle (automobile or trailer), you must also weigh the towed vehicle. This is important, as you must not exceed the tongue load capacity of the trailer hitch, the towing capacity of the hitch, or the GCWR of the motorcoach. Refer to the manufacturer of the towed vehicle for information on how to obtain the tongue weight of the towed vehicle.

## How Much Cargo Can I Carry?

You must decide what cargo you want to carry, based on how many people you are carrying and the actual weight of the liquids onboard. Country Coach recommends that the holding tanks be emptied before leaving the campground. The weight of optional equipment and owner add-ons must also be added to the unloaded weight of your vehicle. Most campgrounds have fresh water. Unless you are going to camp in primitive areas, it is seldom necessary to travel with a full water tank. Normally, 10-20 gallons is sufficient for convenience while traveling.

## Weighing Your Coach

Most of the scales available for weighing motorcoaches are the large platform type, which is long enough to handle a large truck and trailer. A few are the single axle type. If the scales are the single-axle type, drive your front axle onto the scale and stop long enough for the weight to be obtained. Then pull forward until the rear axle is on the scale. To identify the total weight of your unit, add the weights.

If the scales are the platform type, drive your front axle onto the platform scale and stop just before the rear tires reach the platform. In some cases, it may take a spotter working with you to tell you where to stop. After the front axle weight is obtained, drive the unit fully onto the center of the scale, stop and obtain the weight for your total unit. Then drive forward until the front tires are just off the scale and stop. Obtain the weight for the rear axle.

**Note:** For the best results, the axle that is off the scale should be level with the scale.

## Finding Scales

There are probably several certified public scales in your area. There are public-access scales in a variety of places, such as moving and storage company lots, farm suppliers with grain elevators, gravel pits, recycling companies, and large commercial truck stops. If you are unable to locate a nearby public scale, check your telephone book Yellow Pages under "Scales-Public" or "Weights."

Country Coach recommends that you weigh your vehicle at a public scale to obtain a full wet load weight. The vehicle should have a full tank of engine fuel, a full tank of liquefied petroleum gas (LPG, if so equipped) and a full tank of fresh water. The vehicle should not have personal belongings, food products, kitchenware, passengers, or driver included in this weight. Normally, the holding tanks are empty if the water tank is full. It's best to avoid traveling with both the water tank and holding tanks full at the same time. (Remember that fresh water weighs 8.3 pounds per gallon.) This condition significantly reduces your vehicle's carrying capacity and may cause the vehicle to be overweight. Subtract your indicated wet weight from the GVWR printed on the certification label to find the maximum cargo and passenger load that can be safely carried.

The storage compartments on your vehicle have been made as large as possible to accommodate bulky items such as lawn chairs and barbecues. It is very easy to overload these areas. When loading your vehicle, always place heavy items in the lower compartments and lighter items in the overhead cabinets.

Before leaving on your first adventure, consider weighing your vehicle again to check your total GVW along with your total personal cargo load and passenger load. Your vehicle should be fully loaded the way you intend to use it.

Here's a tip. Prepare a loading list to use as a check-off list before departures. Categorize the load so that stored items not often used can be easily located at a later date. This list may also be used to prioritize the weight of belongings to ensure that your vehicle is not traveling in an overweight condition. You may find it necessary after weighing your vehicle a second time to redistribute your load, or it may become necessary to remove some load.

Don't forget the passenger weight. Weigh your coach as it is loaded when traveling. Be sure all passengers are sitting in their favorite seat. If passengers choose different seating arrangements while the vehicle is traveling, the weight change affects the front and rear Gross Axle Weight (GAW). Be sure the family pet is part of the load if you plan to take the pet with you. The expendable loads should be a separate category on your list. All food products, pantry-stored food, refrigerator food, beverages, ice, extra freezer or ice chest with ice should be included on this list. Also, include campfire wood, bags of charcoal briquettes and all expendable items that may leave with you on a journey but may be consumed as you reach your journey's end. Always empty the holding tanks before leaving the campground. If a dump station is not available, it is recommended that the vehicle not travel with a full fresh-water tank when the holding tanks have stored wastewater in them.

## Towing a Vehicle or Trailer

The hitch load is the additional weight applied to the hitch of your motorcoach. A towed vehicle, boat trailer, or carrier rack is a hitch load that effects the GAWR, GVWR, and GCWR. Probably the most critical factor in towing is the combined weight (GCWR) of your coach and towed vehicle. The total actual weight (GVW) of the coach and towed vehicle should not exceed this rating. While this figure has more to do with the drive train design limits (engine, transmission, axle, and bearings), this additional weight can also effect the tires and how your coach handles. Finally, don't forget to consider the actual tongue weight. This should not exceed the Maximum Tongue Weight (MTW) rating of the hitch.

- **Country Coach provides a hitch that can be used for towing vehicles. The towing capacity and the tongue load capacity of this hitch are indicated on a label (Figure 1.10) attached to the hitch. You must never exceed these limits.**

**! CAUTION**

**The factory-installed trailer hitch on the coach safely tows a trailer or another vehicle whose weight does not exceed the GTW (Gross Towed Weight) of the hitch and the MTW (Maximum Tongue Weight).**

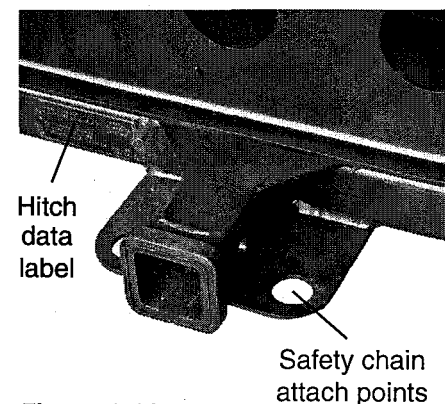



**Figure 1.10**
**Trailer hitch mounting plate (typical)**

- Every coach is equipped with an electric connection for tow vehicle signal lights.
- If you use a ball mount, it must be compatible with the capacity of the hitch.
- You must use safety chains. For this purpose, round holes are available on both sides of the hitch plate (**Figure 1.10**, page 1.23). These are the only approved points of attachment for the safety chains. Make sure you leave enough space for turns when you attach the chains. Do **not** secure safety chains to any other part of the coach.
- Separate functioning brake systems are required for safe control of the towed vehicle. Do **not** connect the towed vehicle's hydraulic brake system directly to the coach's brake system.

  We recommend an electric (manual & automatic) or surge-type brake system that does not connect in any way to the coach's brake system.

  When installed properly and adjusted to the manufacturer's specification, these systems provide adequate additional braking. Familiarize yourself with the proper use of the towed vehicle's independent brake system before driving.
- You must never exceed the Gross Combined Weight Rating (GCWR).
- When descending a steep grade, shift the transmission into the next lower gear or use the engine brake to provide additional engine braking.
- In high altitude operating environments, your engine loses power at the rate of one percent per 1,000 feet (305 meters) of elevation. For these high-altitude operating conditions, a reduction in gross vehicle weights and gross combination weights is recommended and results in improved vehicle performance.
- Read and follow the specifications of the towed vehicle. Important instructions regarding towing may be included.
- Refer to the section **Weighing Your Coach** for instructions on how to properly weigh your coach. The information obtained from weighing your coach is critical when towing a vehicle.

### Towing Tips

- Before starting on a trip, practice turning, stopping, and backing up to gain the feel of the motorcoach/tow combination. When turning, make wider turns so the towed-vehicle's wheels clear curbs and other obstacles.
- Allow more distance for stopping with a tow attached.
- After you have traveled 50 miles (80 km), thoroughly check your hitch, electrical connections, and tow vehicle wheel lug nuts.

- When stopped in traffic for long periods of time in hot weather, place the gear selector in **N** (neutral) and increase the idle speed. This aids engine cooling and air conditioner efficiency.
- Consult the owner's manual for the towed vehicle. You may need to follow important procedures that improve safety and performance.
- Vehicles with tows should not be parked on a grade. If you must park on a grade, place wheel chocks under the tow's wheels. To do this safely, set the transmission in **neutral** (N), and set the parking brake, and then place wheel chocks under the tow and motorcoach wheels.

## Auxiliary Brake Requirements

Various countries, states, counties, and local governments have differing requirements for the apparatus and restrictions of the systems used to brake a vehicle being towed behind a motorcoach. A wide range of equipment is available for this purpose, being designed for various types of vehicles and their respective weight and braking requirements. Country Coach recommends that you check with the proper authorities and/or agencies having jurisdiction in the area(s) in which you plan to tow the vehicle.

## Emergency Towing of Your Motorcoach

In the event of a breakdown or accident, your coach may be towed from the front end by a knowledgeable and experienced towing service. Special care must be taken to prevent any damage to the fiberglass front-end. Do not tow your coach from the rear, since it causes serious overloading of the front-end components. Do not allow your coach to be towed without disconnecting the driveshaft from the transmission and drive axle.

**! NOTICE**

**See the "Heavy-Duty Tow Truck Directory" included in your Coach Information Kit for procedures and tow providers.**

**! CAUTION**

**The ignition switch must be left in the *On* position when towing this vehicle, ONLY if the tow truck is not equipped to provide air for your coach's air suspension system. The ignition must be on to energize the travel values for the suspension system. This would be connected to your coach through the air supply fitting in the steering bay.**

## General Precautions

The following is a recommended precautionary checklist that should be adhered to when operating your motorcoach. Refer to your Coach Information Kit for other warnings from various manufacturers.

- The starter should not be operated longer than 30 seconds at a time. If the engine fails to start, always wait at least two minutes before trying again; this protects the starter from overheating.
- Check the sealants around windows, door seams, and joints every six (6) months and reseal them if necessary.
- Driving through water deep enough to wet the brakes can affect braking performance and cause the vehicle to pull to one side when the brakes are applied.
- If brake failure is indicated, immediate repair service is necessary. Continued operation of the vehicle in this condition is dangerous.
- Do **not** use parking lights when the vehicle is in motion. Parking lights denote a parked vehicle.
- The law prohibits operating the hazard warning flasher system while moving on a highway. The hazard warning flasher system is used only to warn other drivers when your unit is disabled.
- Inspection and service should be performed any time a malfunction is observed or suspected.
- All passengers should be properly restrained in approved restraint systems whenever the vehicle is in motion.
- Before beginning an extended vacation or trip in your coach, check the fire extinguisher for proper charge and inspect to ensure proper operating condition.
- When performing maintenance on any gas-fired appliance, shut off the gas at the tank. Perform a gas leak test on tank valves and check connections before relighting.
- Always check for sufficient overhead clearance before entering an area with low overhead clearance, such as garages, drive-ins, car washes, and tunnels.
- Selected doors and windows have been designated as exits in case of emergency. They are marked with an exit label, and the latches on the windows are red. Learn where the exits are and how to use them.
- Avoid inhaling exhaust gases as they contain carbon monoxide gas which is colorless, odorless, and poisonous.

- The radiator cap should be removed only when checking the coolant freeze point or for complete replacement with antifreeze coolant. Do **not** remove the radiator cap until the radiator has cooled completely.

**! CAUTION**

**Use caution with a hot coolant system.**

## Environmental Disclosures

**! WARNING**

**Some components of this motorcoach may have been manufactured with 1-1-1 Trichlorethylene substances (in an adhesive), which harm public health and the environment by destroying ozone in the upper atmosphere.**

Country Coach, an environmentally conscious company, continues to research and develop alternative manufacturing methods which do not use ozone-depleting compounds.

**! WARNING**

**All faucets and plumbing made of leaded brass alloys, even those that comply with U.S. Environmental Protection Agency (EPA) regulations, contribute small amounts of lead to water that is allowed to stand in contact with the brass.**

**Our coaches comply with all EPA regulations regarding the amount of lead used in plumbing brass and solder. The amount of lead contributed by any product is highest when the product is new.**

**The following steps reduce potential exposure to lead from faucets and other parts of the plumbing system:**

- **Always run the water for a few seconds prior to use for drinking or cooking.**
- **Use only cold water for drinking or cooking.**
- **If you want to flush the entire plumbing system of water that has been standing in the pipes or other fittings, run the cold water until the temperature of the water drops; indicating water coming from the outside main.**

## Reporting Safety Defects

In compliance with National Highway Traffic Safety Administration consumer information regulations (Title 49 CFR Part 575), Country Coach provides the following information.

**! NOTICE**

**If you believe that your vehicle has a defect which could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Country Coach.**

**In the event NHTSA receives similar complaints, the organization may open an investigation. Upon finding that a safety defect exists in a group of vehicles, the organization may order a recall and remedy campaign. However, NHTSA does not become involved with individual problems between you, your dealer, or Country Coach, Inc.**

**To contact NHTSA, you may call: Auto Safety Hotline toll-free at (888) DASH-2-DOT (888) 327-4236 or (302) 366-0123 in the Washington, D.C. area or write to: NHTSA, U.S. Department of Transportation, Washington, D.C., 20590. You can also obtain additional information about motor vehicle safety from the hotline. NHSTA can also be reached at: www.nhtsa.dot.gov/hotline/**

## State Road Restrictions

**! NOTICE**

**Country Coach does not represent or warrant that its motorcoaches can lawfully be operated on all roads or in all states. Laws restricting the length, width, and/or weight of vehicles vary from state to state. Depending on the model, some Country Coach motorcoaches (as well as similar sized motorcoaches produced by other manufacturers) may not legally be used on certain roads or in certain states, or may only be used on such roads or in such states with special permits or license endorsements. It is the responsibility of each prospective purchaser of a motorcoach to determine any limitations or restrictions on the use of the motorcoach in the states in which the purchaser intends to use it.**

## Compartment Storage Caution

**! CAUTION**

**Several compartments are NOT intended for use as storage areas. These areas include:**

- **Engine bay**
- **Battery bay**
- **Service center bay**
- **LP gas bay**
- **Generator bay**
- **Plumbing bay**
- **Steering bay**

**Do NOT use these areas for any kind of storage!**

### Slide-Out Room Cautions

See the slide-out room section in the **Equipment** chapter for more information.

- Be sure to operate the slide-out room only while the park brake is engaged, the coach engine is running with the transmission in neutral, and the entry door or a window is open. This relieves air pressure resistance within the coach, putting less of a drain on the electrical system and pump motor.
- The hydraulic pump has a powerful electric motor that generates heat. When using or demonstrating your slide-out room, avoid more than three operations within 15 minutes. This allows the hydraulic-pump electric motor to cool properly.
- The slide-out room, when extended, can collect water on its roof during heavy rains.

**To prevent roof water from entering the coach:**

1 Press the **air** button to activate the HWH leveling system.

2 Press the front or rear down arrow for approximately five seconds, lowering the front or rear of the coach. Water drains as a function of gravity.

3 Level the coach and retract the slide-out room.

**! NOTICE**

**Some water might still drain into the coach when a slide-out room is retracted. This is a normal occurrence. Water brought in should be mopped up immediately.**

## Dry Camping

Dry camping refers to camping without the normal hookups to exterior water or power sources. Factors such as the discharge rate of the batteries and the amp-hour rating of the battery bank determines how long your coach can dry camp. Be sure to run the generator until the batteries are at 90% or at float charge, as well as anytime there is a large current usage (coffee pot, hair dryer, microwave, etc.).

The key word in dry camping is conservation — conservation of energy, water, and holding tank capacities. The following recommendations and suggestions help you make your dry camping experience a pleasurable one:

**Batteries:** For sufficient charging of most coaches, the generator should be run for a minimum of two hours in the morning, and two at night before quiet time. Four hours per day should be sufficient to restore electricity consumed during the day, but check the inverter display to determine the battery state of charge. You may need to run the generator even longer than four hours.

Liquid-cell batteries require an electrolyte solution level that covers the tops of the plates, yet not into the fill neck, as overfilling may cause the battery to boil over, resulting in corrosion.

**! NOTICE**

**Be aware of the total rate of current consumption in the coach. Even with everything turned off, including the inverter, some coaches consume as much as 5-6 amps. At that rate over 24 hours, a substantial portion of the available house battery charge is being used up, even before you turn on the first light.**

If you change battery types, you need to adjust the inverter accordingly for the proper charging rates. Refer to the Inverter owner's guide in the Coach Information Kit for the proper settings.

**Black and gray storage tanks:** Don't dump the black tank until it is over half full. Use a commercial-grade tank additive, not home remedies, and the same chemical should be used in the gray tank. Flush the gray and black tanks as often as possible, with the black tank valve open; run it for 10-15 minutes. Never equalize the tanks, and always dump the black tank first, if it needs to be emptied.

**Fuel tank:** The auxiliary generator runs off this same tank. Use truck stop diesel. Since they have a higher volume of business, the fuel may be cheaper, and possibly fresher.

**Leveling systems:** With the engine running and the park brake set, press the **air** button twice (see Chapter 2, **Controls and Panels**). This action levels the coach in the automatic mode. For long-term storage, leveling is not necessary, but it is a good idea to expel the air from the system by pressing the **dump** button. Fully dumping the air does not damage anything, and prevents uneven air loss from corner to corner.

When extending a slide-out room, you must level it twice — once before and once after the room is extended.

**Liquid propane:** LP is a very safe substance, and most coaches use it for heating (water and space), cooking, and refrigeration. Tanks should **never** be filled beyond 80% of capacity. The LP leak detector is located in the galley area, and sounds an alarm if it detects a leak. The system requires very little maintenance.

**Water conservation:** Conservation of water in a dry camping situation is critical, since showers are the greatest consumer of fresh water. Consider taking brief showers.

**Solar panels:** Though useful for charging the batteries, most people consume more electricity than a small solar panel can replenish, so it is still a good idea to run the generator to ensure that the batteries are sufficiently recharged.

# Controls and Panels



# CONTROLS AND PANELS

All Country Coach models are equipped with a sophisticated array of systems and features. Most of these can be controlled from the cab/dash area. Additional controls and panels have been located throughout the coach for operator convenience. This section, complete with illustrations and descriptions of the panels, instruments, and controls, has been included to familiarize you with the operation of your coach. A thorough understanding of these controls allow you to gain maximum enjoyment from your motorcoach.

**Note:** The letters **FE** refer to information unique to the Inspire 360 **Founder's Edition**.

## Keyless Entry System

Your coach comes equipped with a keyless entry system, which is controlled with a key FOB (**Figure 2.1**). This electronically locks and unlocks the entry door.


**Figure 2.1**
**Keyless entry key FOB**

## Passenger Side Panels

### Entry Switch Panel

These panels are located just inside the door to your immediate left upon entering the coach (**Figure 2.2**). Typical switch functions are as follows:

- **Porch Light:** operates exterior doorway lights and illuminates the door handle.
- **Entry Step:** keeps the cab entry steps extended (ignition off) when the door is closed.
- **House Batt:** the house battery-disconnect switch activates and deactivates all coach domestic 12 VDC features. This is the master control for the coach's domestic 12 VDC electrical system.

A similar panel of two switches is located to the immediate right of the passenger seat:

- **Entry step cover:** extends and retracts the entry step cover.
- **Lights:** activates the living room ceiling lights.

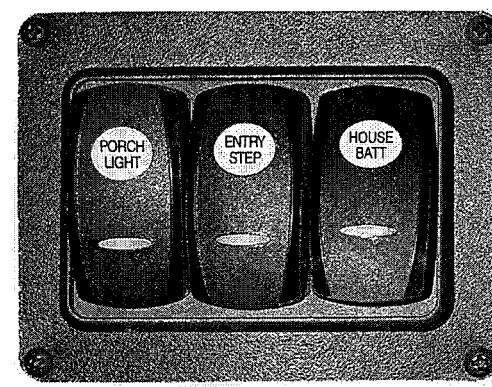



**Figure 2.2**
**Entry switch panel (typical)**

## Foot-Operated Controls (adjustable)

The brake and accelerator pedals are located on the floor in typical automotive position. The brake pedal operates the service brakes, while the accelerator pedal controls the vehicle speed via the engine rpm.

## Intellitec Multiplex Switching System (Inspire 360)

By connecting most of the coach's switch panels to a central multiplexing system located in the wardrobe area behind an access panel, the design of this modular system results in the use of less wiring and fewer connections, and, therefore, a lower possibility of system failure.

Separate fuses for each circuit are conveniently located at the output modules in the wardrobe. The absence of a green light beneath a connection and its associated fuse (when the switch indicates that the circuit is on) indicates a fuse has blown. This makes it easy to track down and repair the faulty circuit. A handy fuse puller is included for this purpose. The entire system is protected by a series of circuit breakers, located in the battery bay. Refer to **Intellitec System Fuses** in Chapter 3.

A light switch, for instance, works as follows:

- Press the switch once to turn the light(s) on. (An active circuit is indicated by amber backlighting of the switch.)
- Tapping the switch again shuts the light(s) off. (An inactive circuit is indicated by green backlighting.)

**! NOTICE**

**Ceiling lights and vanity lights do not dim, and are either full on or full off. Likewise, the water pump can only be turned on or off.**

### General Operating Facts

- All switches in the coach that correspond to a specific circuit — living room ceiling lights, for instance — are amber backlit when that circuit is active. In other words, all switches on the same circuit indicate an **on** status (amber) when any one of them is used to activate the circuit. If a circuit is turned off in a location different from where it was turned on, it turns off the backlight on all the switches for that circuit.
- If for any reason a malfunction occurs with the Intellitec system, a series of three small override switches are available on a panel in the wardrobe. They provide power to the living room lights, the bedroom lights, and the water pump, which is located in the plumbing bay.

**! NOTICE**

- **If you encounter all the switches are flashing amber, it means a problem exists with the "data bus" circuits. Here again, use the three override switches in the wardrobe to turn on lights and the water pump, as necessary. At the first possible opportunity, let a qualified service technician inspect the system.**

  **Once the malfunction has been corrected, these switches must be turned off before control of that circuit can be returned to the Intellitec system.**

**! NOTICE**

**As with any of the "house" functions, none of the Intellitec circuits become energized until the house battery-disconnect switch is turned on.**

### Electrical Switch Panel Locations

Typical locations of the switch and control panels in the Inspire differs with floorplans. However, you can find them in the appropriate schematics, located in the schematic envelope in the Coach Information Kit. Systems and their associated panels may change or be relocated without notice.

## Driver-Side Console

The driver-side console (**Figure 2.3**) is to the left of the driver's seat, below the window. Included in this panel are the controls for selecting the transmission gear range, parking brake, exterior lights, engine speed, and others (depending upon options).

### Left and Right Mirror Control

The left and right mirror control is incorporated into one four-way momentary switch located at the front of the console. Rotate the joystick left or right to select either the driver- or passenger-side mirror, respectively. Use the joystick to adjust the mirror position.

### Battery Boost

In the event the engine does not start because of weak chassis batteries, the boost circuit should be engaged to allow the house batteries to supply power to the starter.

For best results, press the battery-boost switch, located on the driver-side console, for about thirty seconds before cranking the engine, and then continue to press the switch while starting the engine. This allows the batteries to equalize before the rush of current required for the starter application. This switch can also be used to aid in starting the diesel-powered generator.

See Chapter 3, **Electrical Systems**, for more on the battery-boost system.

**Note:** Insufficient equalization time may result in a tripped circuit breaker or a blown fuse.

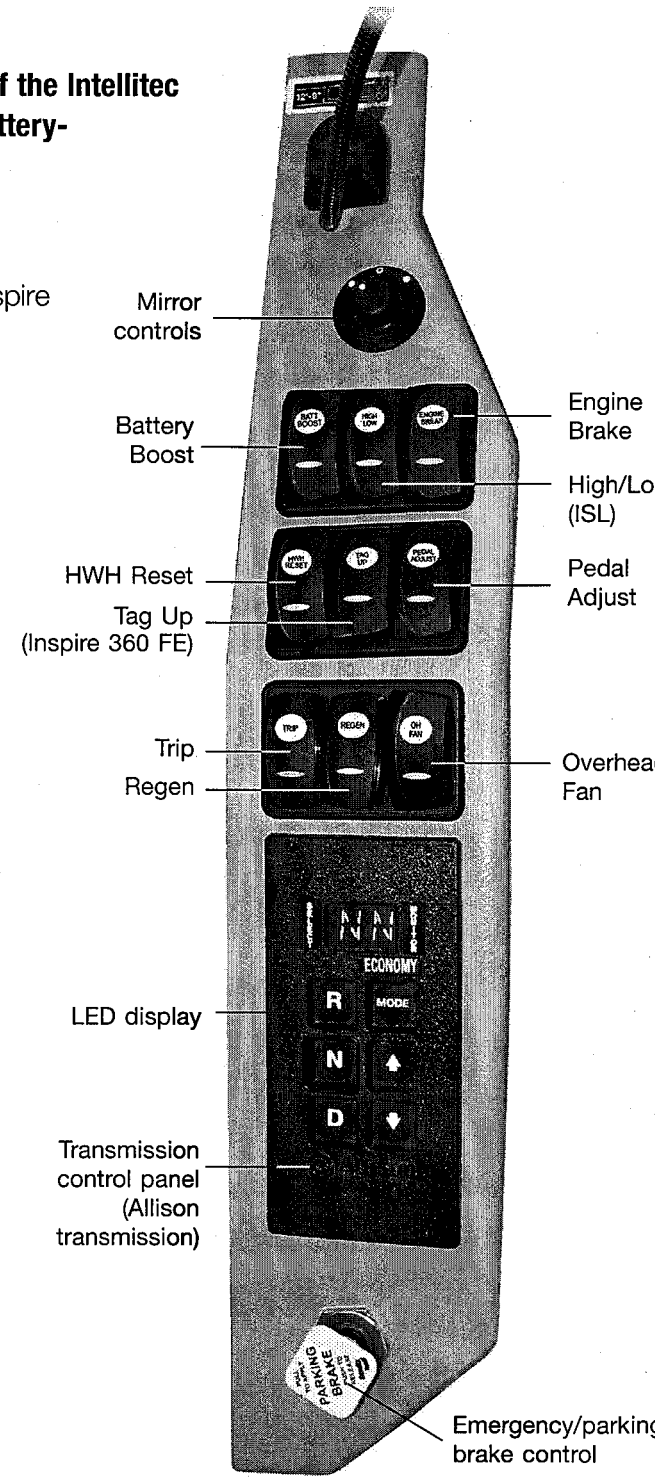



**Figure 2.3**
**Driver-side console (typical)**

### High - Low

Enables you to adjust the engine-brake resistance applied to slow the coach. Low being the least resistance for a gradual slowing and high resulting in a more rapid decrease in speed, with a medium setting in between.

### Engine Brake

The Jacob's brake, or "jake brake," is a specially-designed cylinder head assembly on the engine that acts as an engine retarder or power-absorbing system.

When activated, the system opens the exhaust valves near completion of the engine's compression stroke. This vents high-pressure air through the exhaust system, defeating compression and, therefore, cancelling energy production on the engine's power stroke and consuming energy on the compression stroke. This subsequent loss of energy slows coach. The transmission also downshifts sooner to aid in slowing.

**Note:** When using the exhaust brake, be sure the cruise control is turned off.

For the safest method of using this system, please consult the exhaust brake driver's guide included in your Coach Information Kit.

### HWH Reset

When this lighted switch is on, the HWH network is inoperative, and the switch must be pressed before any slide-out room or leveling operation can proceed. After the switch is pressed:

- **A network problem with one room does not prevent operation of the other rooms or the leveling system.**
- **A network problem with the leveling system does not prevent operation of the slide-out rooms.**

  **If the lighted switch does not go out when pressed, there is a problem with the network's central control module and neither the slide-out rooms nor the leveling system will function.**

> **! CAUTION**
>
> **If the ignition switch is in the On position and the switch is lit, the vehicle can return to ride height without releasing the park brake.**

### Tag Up (if equipped)

Your Inspire coach may be equipped with a rear tag axle that can be raised and lowered, depending on driving requirements. When you press the switch, the tag axle is raised and a corresponding indicator light, located on the center dash, turns on.

### Pedal-Adjust

Rock the switch back to move the brake and accelerator pedals closer to the driver, rock it forward to move them away.

### Trip

This switch operates the trip odometer. When pressed, it toggles between speed, odometer, Trip 1 odometer, Trip 2 odometer, and transmission temperature. When the trip odometer is displayed, press and hold to reset the trip reading.

### Regen

Your coach is equipped with the new Cummins or Caterpillar engine that are designed to use Ultra Low Sulphur Diesel fuel (ULSD) diesel fuel. These engines are equipped with a Diesel Particulate Filter (DPF)/muffler. Normally, the filter clears itself at freeway driving speeds, and the switch should remain in the automatic mode (neutral position). At constant slower speeds or idling, however, the filter may become clogged and unable to clear itself. Driving on a highway where you can travel at speeds above 30 mph should be sufficient to enable the filter to clear itself normally.

If a the DPF light (**Figure 2.9**, page 2.16) indicates a regen is required, use one of the following two methods to resolve the issue:

1 **Drive above 20 miles per hour for 1 hour.**

- **Make sure the Regen switch is not in the latched "Disable regen" mode. It must be in the middle position, this is the "automatic" mode for the regen.**
- **The 1 hour time frame should be more than sufficient to complete a full regeneration cycle.**

**Note: The time it takes to complete a regen depends on the amount of soot built up. This can take from 20-60 minutes.**

- **If coach speed drops below 20 miles per hour, the regen process is temporarily disabled, possibly resulting in the Hot Exhaust indicator illuminating if the exhaust temperatures are above 500°F.**

2 **If driving is not practical at the moment and you are in a safe location (Safe location defined below) then initiate a regen as follows:**

1 **Start the coach and let it warm up for 5-10 minutes.**

2 **Press up on the regen switch, hold for 3 seconds, and release. This should start the regeneration process. This will typically cause the engine idle to elevate to around 1000 rpm.**

3 **Monitor the area around the engine compartment to keep people, equipment, or other vehicles and combustible materials at least 2 foot away from the exhaust. Once the engine has completed the process, the idle will drop back down to normal.**

4 **Stop the engine after a couple of minutes to allow the cooling system to bring engine compartment temperatures back to normal.**

**A "safe location" is defined as follows:**

1 A minimum of 36" inches of clearance between the exhaust of the coach and any other objects.

2 The coach is parked on asphalt, cement or gravel.

3 No combustible materials within 36" of the exhaust. This includes under the coach as well as outside of it. Grass is considered combustible.

4 No foot traffic near the coach for the period of time that the regeneration can take.

Note: A typical "regen" requires these clearances for 20-60 minutes.

**The only reasons the regen light (DPF indicator) should illuminate are:**

- The coach is being driven in areas where speed is limited to less than 20 miles per hour.
- The coach has been idling for long periods of time.
- The Regen switch is in the inhibit-regen mode because of heat/fire concerns in the current driving location.

**Note:** Keeping the system in "Auto" mode is a good way to prevent the DPF light from illuminating as often.

When traveling through fire-sensitive areas, press down on the rear of the switch to disable the regeneration process. When you are clear of the fire-sensitive portions of the trip, return the switch to the neutral position to enable the automatic regeneration process. When the switch is in the 'disable' position a Regen Disabled message is displayed on the odometer readout in the center dash.

If the DPF becomes more severely plugged, the DPF light will begin to blink. When this occurs, then you must find a location or stretch of road to allow the engine to regen.

**! IMPORTANT**

**This cannot be ignored. If allowed to continue, at some point the DPF will become plugged and the engine will shutdown. When shutdown occurs for a plugged DPF the engine cannot be re-started and must be towed to a service center to get the DPF serviced.**

## Overhead Fan

The overhead fan control operates the fans above each side of the forward portion of the cab area. Rock the switch forward to turn on the fans, rock the switch back to turn off the fans. Each fan has a 2-speed switch on its mounting support to vary the fan speed.

### Transmission Push-Button Range Selection

Transmission gear selection is accomplished through the electronic control shifter (**Figure 2.3**, page 2.3). The LED display located at the top of the shifter displays two gear numbers.

- **The Caterpillar CX28 shifter first number indicates the maximum requested gear. The second number indicates the actual gear.**
- **The Allison Generation IV shifter first number indicates the highest forward gear range available. The second number indicates the current selected gear.**

The function of each button is as follows:

**R** = Reverse **N** = Neutral **D** = Drive

### Upshift and Downshift Arrows

Pressing the upshift or downshift arrow shifts the transmission into a higher or lower range; one press changes it by one range. Holding the button in changes the range continuously until the button is released or the highest or lowest possible range is reached. Upshifting from neutral shifts the transmission to drive.

The **N** button has raised edges so the driver can orient his/her hand by touch, without looking at the panel.

### Mode

The transmission mode switch is used to access special functions that may have been programmed into the Electronic Control Unit (ECU). The mode status is indicated on the LED display. For more detailed information, refer to the Allison transmission manual included with your DynoMax chassis manual.

### Emergency/Parking Brake Control

The parking brake control is a two-way valve. Pulling out on the knob vents compressed air from the brake chambers and allows a spring-loaded mechanism to apply the brakes. Pushing in the control knob closes the vent and directs air pressure to release the brakes.

The parking brake should always be applied when the coach is parked; it is not designed for use in normal braking, but can be applied in an emergency situation.

**! CAUTION**

- **Check the air pressure gauges for a minimum of 85 psi prior to releasing the brakes.**
- **Applying the brake while the vehicle is in motion activates the spring-loaded brake mechanism, locking up the drive axle and bringing the coach to an abrupt stop. Use of the parking brake in this manner should be reserved for emergencies only.**

**! NOTICE**

**Whenever the ignition switch is turned on, the headlights are activated at half power as a daytime running light feature.**

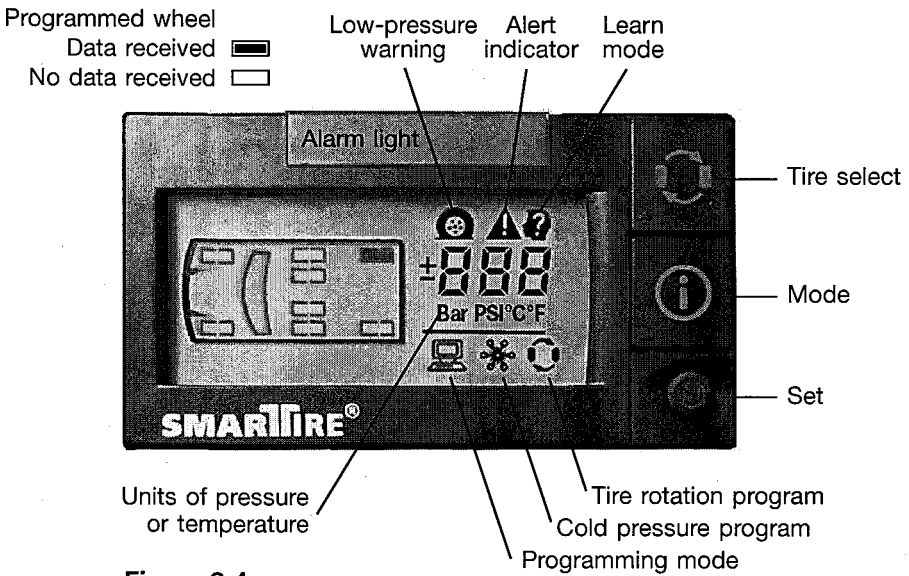



**Figure 2.4**
**SmarTire II panel**

## SmarTire II Tire Monitoring System (option, Inspire 360)

The optional SmarTire II monitor system (**Figure 2.4**) uses a series of sensors and a receiver that process information about tire air pressure and tire air temperature. Normally, the sensors transmit data every 3 to 5 minutes while the vehicle is in motion. But if a sensor detects a sudden pressure change (user defined), it transmits the information immediately, and an audible alarm sounds, accompanied by the red alert light.

When power is applied to the SmarTire system, the control panel momentarily turns on all icons, beeps, and blinks the alarm light once. The unit then goes into stand-by mode, waiting for data from the wheel transmitters.

Until the vehicle is in motion, no data is received from any of the wheels. The display remains blank except for the outline of the coach.

Data from a towed vehicle (if the towed vehicle has sensors) is indicated by icons with no windshield/louvre icon, and the display alternates between the two vehicles.

### Basic Functions

**Tire select:** Press to scroll through the tires.

**Mode:** Press to scroll through the pressure, temperature, and pressure deviation readings for a selected tire.

**Set:** Press to return to normal mode, to save after setting a program, and to exit from a programming mode.

Refer to the SmarTire User's Manual in the Coach Information Kit for more details on the operation, alerts and warnings, and programming of your SmarTire monitoring system.

### HWH Leveling Control Panel

Located on the lower portion of the console panel, the HWH control panel (**Figure 2.5**, page 2.9) enables computerized leveling by pushing the **air** button twice. To manually operate the HWH leveling system push the **air** button once and use the

arrow buttons accordingly. If slide-out rooms are being extended, it is recommended that the coach be leveled before and after extension. Refer to your Coach Information Kit for complete instructions on the HWH leveling system.

## HWH Control Functions

**Level:** turns the system on and enables automatic operation.

**Off:** turns the system off, but does **not** control power to the **dump** or **raise** buttons.

**Dump:** lowers the entire vehicle by exhausting air from the suspension system.

**Raise:** raises the entire vehicle by adding air to the suspension system.

**Up/down (raise/lower) arrows:** momentary buttons for manually operating the air leveling systems. Pushing these buttons raises or lower the sides or ends of the coach.

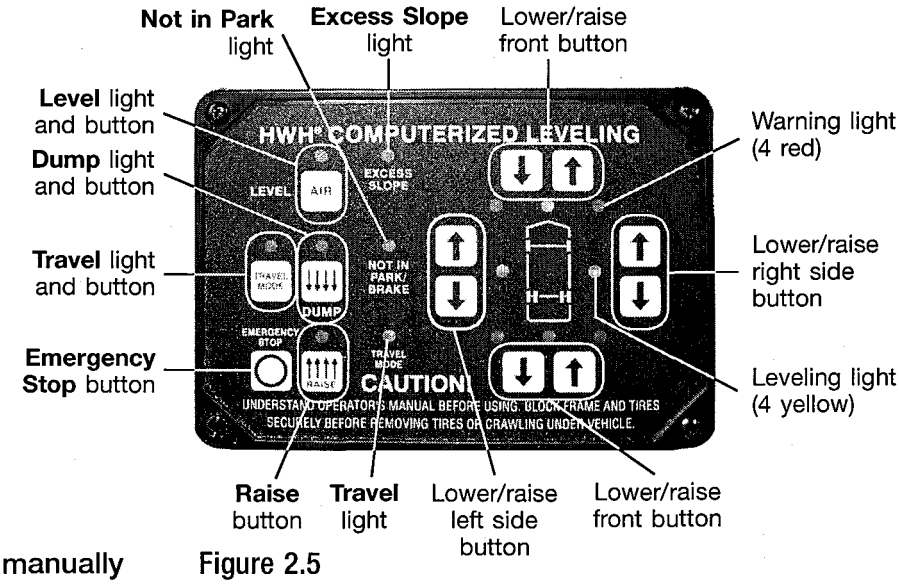



Figure 2.5
HWH leveling control panel

**Level light:** indicates the system is on and flashes during automatic leveling.

**Dump light:** flashes when the **dump** button is pressed.

**Raise light:** flashes as long as the **raise** button is pushed.

**Excess Slope light:** indicates that the coach can not be leveled, due to terrain slope beyond the limits of the suspension leveling system.

**Travel light:** indicates the leveling system is off and the ignition is on or in the **acc** position. See **Preparation for Travel** in the Operating Procedures section of the HWH manual.

**Warning lights:** four red lights that indicate the system is on and the ignition is on or in the **acc** position.

**Leveling lights:** one or two yellow lights indicate the side, end, or corner of the coach is low.

**Not in Park/Brake light:** illuminates when the **air** button is pressed, the ignition switch is on, but the parking brake is not set.

**! WARNING**

- **Before traveling, the green Travel warning light must be on. Do NOT move the coach until the HWH leveling system is in Travel mode. It is the operator's responsibility to verify that the coach is at ride height.**
- **Do NOT move the coach with a room extended.**

The Master Warning Light indicates low air pressure, the leveling system is on or not in travel mode.

- The leveling system only operates with ignition switch on, and engine speed may need to be increased to facilitate faster leveling.
- The reset light/switch illuminates if there is a failure in the HWH communication network. (Master Warning light illuminates also.) The reset button must be pressed to operate the system.

## Automatic Leveling Procedure

1 Turn the ignition on, set the parking brake.

2 Press the **air** button. The red **Leveling System Active** light above the **Air** button turns on, and the four "corner" red lights illuminate. If the coach is not level, a yellow light illuminates to indicate the low side or end of the coach.

3 Press the **air** button again. The red **Leveling System Active** light above the **Air** button blinks until all yellow lights turn off. This indicates the coach was leveled. This may take up to 20 minutes. If it cannot level the coach, the **Excess Slope** light turns on.

4 After leveling, the system goes into **Sleep mode.** In this mode, it checks every 30 minutes for proper level. If the coach has become unleveled, the system automatically levels it as indicated above. This operation continues until the either the **emergency stop** button is pressed or the parking brake is released.

## Manual Leveling Procedure

1 Set the parking brake.

2 Turn the ignition on.

3 Press the **air** button. The red **Leveling System Active** light above the **Air** button turns on, and the four "corner" red lights turn on. If the coach is not level, a yellow light illuminates to indicate the low side or end of the coach.

4 **Begin leveling side-to-side** using the up or down arrows on the left or right side of coach symbol.

5 **Adjust front-to-back** level by using the up or down arrows at the top or bottom of coach symbol.

### Driving/Safety Features

1 Press the **air** button to turn the system on. (Engine or ignition on. **Dump** and **Raise** features operate up to 7 mph, then automatically change to travel mode.)

> **! WARNING**
>
> **It is not recommended that the Dump or Raise functions be performed while the coach is in motion. Damage to the coach body, tires, and suspension parts may occur.**

2 Press the **emergency stop** button during any operation. Air suspension system stops any leveling.

3 Press **dump** button to lower the coach under low obstacle. Air suspension lowers coach.

4 Press the **raise** button to raise the coach over obstacle. Air suspension raises the coach.

5 Press the **travel mode** button to set the coach to driving height. Visually verify that the coach is at proper ride height for travel. Verify that the **Travel Mode** light is on and **Master Warning** light is off.

(Releasing the parking brake automatically changes the system to travel mode.)

## Headlights/Fog Lights

Situated in the lower left dash panel (**Figure 2.6**) is the headlight control switch. Rotate the switch to the right to the first stop to turn on the marker lights (also called courtesy or clearance lights). By turning the switch all the way to the right you activate the headlights and can, at this point, illuminate the fog lights by pulling the knob out. The dash panel instrument lights are controlled by the knurled wheel on the right side of the control unit.

> **! NOTICE**
>
> **Whenever the ignition switch is turned on and the parking brake is released, the daytime running lights (DRLs) are activated.**

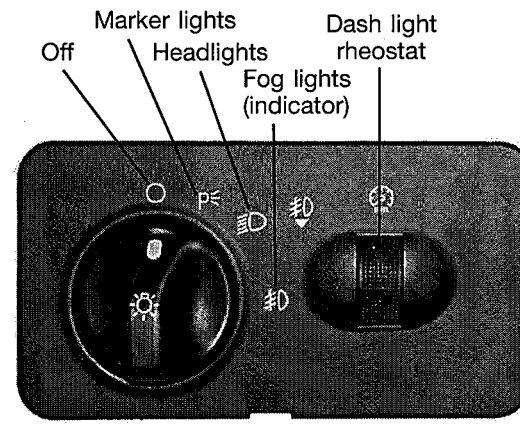



Figure 2.6
Headlights/fog lights panel

### Condensation in Headlights

The headlights on your coach are designed to feature a replaceable bulb assembly and a vent system. For ease of bulb replacement, they are not sealed and, therefore, due to condensation may exhibit a fine misting, "white fog", or small droplets of water on the inside of the light lens.

Condensation can occur when the air inside the light housing reaches total saturation, or the "dew point", due to atmospheric conditions. This causes the moisture in the air to condense, resulting in the fine mist or "white fog" on the inside of the lens or chrome reflective surface.

Most headlights of this type are designed to remove any accumulated moisture vapor by expelling it through a vent system. This system operates at all times, but is most effective when the lights are on and the vehicle is in motion.

If, however, your motorcoach is parked for extended periods of time, the following maintenance recommendations are worth observing:

- **Check headlights regularly for condensation (frequently in high-humidity areas).**
- **If small drops of water are visible, drive your coach with the headlights on for best evaporation and venting. If driving at the time is not possible, just turning the lights on helps, too. Depending on the size, shape, and location of the headlights, and the current atmospheric conditions, the process of clearing the light may vary from two to six hours.**

**! NOTICE**

**Headlight seals should not be directly sprayed with high pressure (home or industrial) wash systems.**

## SmartWheel II Steering Wheel

The SmartWheel II steering wheel contains the horn and switching for the headlights, cruise control, marker lights, and the windshield wiper/washer. These features can be activated without removing your hands from the steering wheel (**Figure 2.7**).

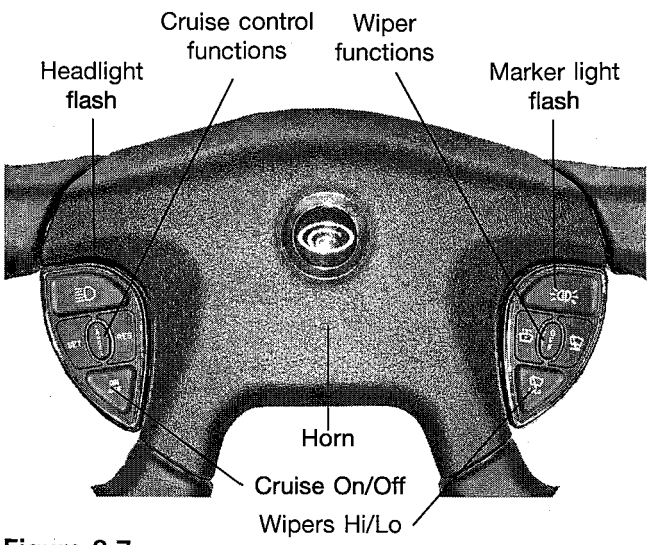



Figure 2.7
SmartWheel II

### Headlight Flash

At the top of the left control pad, there is a headlight flash button. With the ignition on and the parking brake off:

**Headlights on:**

**High beam** — Pressing the button turns off the high-beam lights and turns on the DRLs. This remains in effect as long as the button is held down.

**Low beam** — Pressing the button dims the low-beam headlights to approximately half power. This remains in effect as long as the button is held down.

**Headlights off:**

**High beam** — Pressing the button turns on the high-beam lights and turns off the DRLs. This remains in effect as long as the button is held down.

**Low beam** — Pressing the button brightens the low-beam headlights to full power. This remains in effect as long as the button is held down.

The headlights bright/dim switch is incorporated into the turn signal switch located on the left hand side of steering column. Pull the switch to change between bright and dim headlights.

## Marker Lights

- Use the dash-mounted headlight switch to turn the marker lights on and off (**Figure 2.6**, page 2.11). Turn the knob to the first position for the marker lights.
- At the top right of the SmartWheel control pad is the marker lamp flash button. With the ignition on, as long as you press and hold the button, the marker lights stay on (if previously off) or stay off (if previously on).

## Cruise Control

To activate the cruise control, push the **on/off** switch. When the preferred speed is reached, push and release the **set** switch. To resume the previously-set speed after braking, press and release the **resume** switch. Cruise control can only be activated at or above 30 mph. Cruise control is disengaged when either the brake pedal, or the cruise control **on/off** switch are depressed.

- **On/off:** activates and deactivates the cruise control system.
- **Set:** sets the cruise control speed value. Set also adds 1 mph to the set speed with each subsequent press of the button. In addition, when in neutral, pressing **set** also increases idle speed in increments to a maximum of 1100 rpm. Press **res** to bring the rpm back down.
- **Resume:** returns to the previously-defined set speed value. **Resume** also decreases the set speed by 1 mph with each press.
- **Cancel:** cancels the set speed. This does **not** turn off the cruise control. It abandons the set speed, which remains in the cruise memory down to 35 mph. You may press Resume to return to cruising speed.

**! WARNING**

**The cruise control feature of this vehicle is designed for your convenience! It is designed to maintain a set speed ONLY, and does NOT control the vehicle's direction of travel, and it is NOT an autopilot. Do NOT leave the drivers position at ANY time the coach is in motion.**

**Country Coach is not responsible for damage to, or destruction of, the coach, its occupants, or any other person or property, which may arise from the improper use of the cruise control, or any other part of the coach.**

### Wiper Functions

**Note:** When the wipers are activated, the headlights are automatically turned on.

- **Wiper off:** Returns the wiper system to the rest position. This mode is also entered any time the ignition is turned off.
- **Wiper hi/lo:** Turns on the low-speed wipers; wipers always start in low, any subsequent pressing toggles the wipers high and low.
- **Wiper wash:** Press and hold this switch to turn on the washer fluid pump and the wipers. As long as the switch is depressed the washer fluid pump operates, the duration of which also dictates the length of time the wipers continues to operate after the switch is released.
- **Wiper delay:** Intermittent speed function is programmable from 1 to 30 seconds. Press the **intermittent speed** button once to begin the timer, and the wipers run through one cycle. Wait 1 to 30 seconds and press the button again. The wipers run through one cycle the second time, and the timer is set. The wipers run through one cycle again after the timer set time has expired. The wipers continue to operate in this fashion until they are turned off, the **hi/lo** button is pressed, or the intermittent speed button is pressed which runs the wipers through one cycle and reset the timer.

### Emergency Flashers

The switch for the emergency flashers is located on the lower left side of the steering column.

## Center Dash Panel

The dash center panel is the main dash area, directly in front of the steering wheel (**Figure 2.8**, page 2.15). A series of gauges and indicator lights arranged across the face of this panel monitor various chassis functions.

### Fuel

The fuel gauge indicates the amount of fuel in the 110-gallon fuel tank. The tank serves as the common source for the vehicle engine and the 120 VAC diesel-powered generator. The generator, however, draws fuel from the tank through a shorter pickup tube, and cannot completely deplete the main fuel supply.

### Voltmeter

The voltmeter shows the chassis battery voltage level. Normal readings should be approximately 12 VDC. A significant or prolonged drop from this level indicates a possible drain on the battery, or the engine alternator's inability to recharge.

### Air Pressure

These gauges indicate pressure in the compressed air system's holding tanks for the front and rear systems.

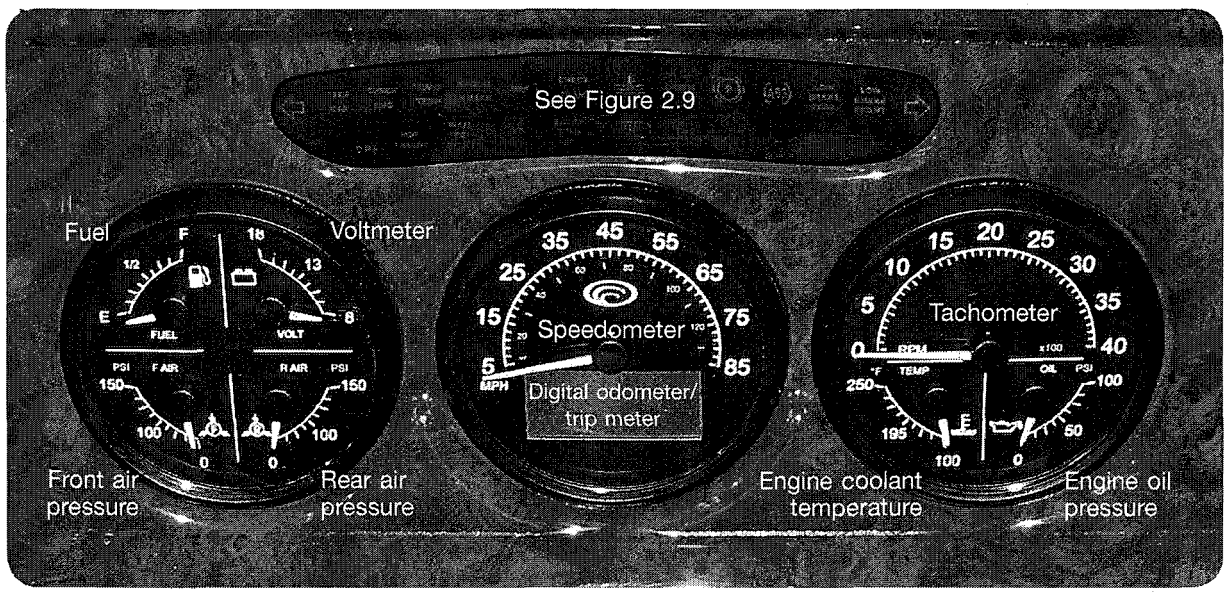



**Figure 2.8**
**Center dash panel (typical)**

### Speedometer

The speedometer indicates driving speed in miles-per-hour (outside numbers) and kph (inside numbers). The gauge includes a digital readout for vehicle speed, Trip 1, Trip 2, odometer, and transmission temperature. The **Trip** switch for selecting these functions is located on the driver-side console.

### Tachometer

The tachometer indicates engine speed in rpm x 100. Use this gauge while driving to select correct shift points and to prevent excessive rpm (over 2300) during deceleration.

### Engine Coolant Temperature

This indicates engine operating temperature. Normal operating temperature is 170°-195°F.

### Engine Oil Pressure

Normal engine oil pressure readings are between 35-75 psi.

## Telltale Indicator Lights

The panel indicator lights, including the turn signal indicators (**Figure 2.9**, page 2.16), are clustered in the center window of the dash, and are only visible when lit. Except for the typical headlight high-beam graphic which illuminates blue, the darker gray cells indicate red (warning conditions), the lighter grays are green cells (systems, like turn indicators or cruise control, are on), and the white represent yellow, or caution cells, indicating that a particular coach system or component needs to be checked.

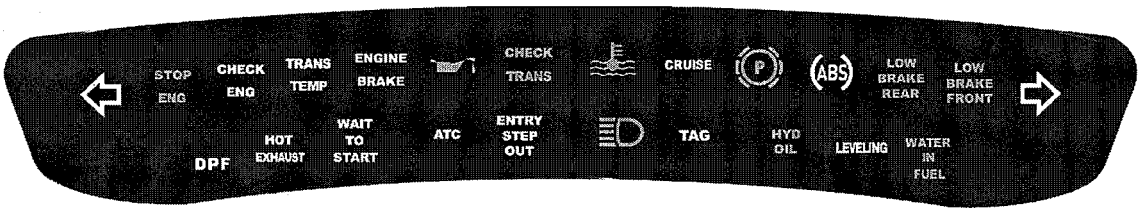



**Figure 2.9**
**Telltale indicator lights**

**Note:** As part of a self-test procedure, these lights may illuminate briefly when the ignition switch is first turned to the on position.

## Turn Signal

To the left and right side of the panel are the turn signal indicator lights. These lights flash in unison with the turn direction selected. The steering column lever on the left side operates the turn signals.

## Stop Engine

The stop-engine light illuminates when the engine control module (ECM) detects a problem that may require a reduction in engine power or a complete engine shutdown.

## Check Engine

This indicator lights when the sensor has detected a problem. The sensor "de-rates" engine torque or engine speed if detected fluids are depleted or other sensors have failed. If the problem persists or becomes critical, the engine powers completely down.

## Transmission Temperature

Indicates when the temperature has exceeded the safe operating level. Should this happen, stop the vehicle as soon as possible to prevent potentially serious transmission damage. Check the transmission temperature gauge for confirmation.

## Engine Brake

Indicates activation of the engine braking system.

**Note: When the light is off, it does not mean that the engine brake system is turned off. The engine brake is a specially-designed cylinder head assembly on the engine that acts as an engine retarder or power-absorbing system. It is driver-controlled with the switch located to the left of the driver on the driver-side console. To operate the system, simply activate the engine brake switch, and then select low, medium, or high, depending on the amount of braking preferred.**

**! CAUTION**

**The engine brake is not functional as a service brake. It cannot fully stop your motorcoach or be used as a parking brake.**

The engine brake should be applied whenever the coach is:

- **Descending a hill**
- **Exiting onto an off-ramp (use caution on turns)**
- **Approaching traffic lights or stop signs**
- **Approaching stopped or slow traffic**

### Low Oil Pressure Warning

When the engine oil pressure drops below safe operating levels, the low oil pressure light is illuminated. Should this happen, stop the vehicle as soon as possible. Check the oil pressure gauge to confirm actual low oil pressure.

### Check Transmission

When the check-transmission indicator light comes on along with a flashing display from the shift selector, the shifts are being restricted. The display shows the actual range attained, and the transmission does not respond to attempts to change the current selection. The transmission may be operated for a short time in order to reach service assistance before turning the ignition off.

### Coolant Temperature

The water temperature indicator lights when the coolant temperature exceeds the prescribed operating range. Should this happen, stop the vehicle as soon as possible to prevent serious damage to the engine. Check the water temperature gauge for confirmation.

### Cruise Control

This is lit anytime the cruise control system is enabled.

### Parking Brake

This indicator lights up whenever the parking brakes are being applied. Traveling with these brakes set is not possible.

### ABS

This indicator lights if the Anti-lock Braking System (ABS) senses a fault in the system. It is not necessary to stop driving your coach, but do have the ABS system checked at your earliest convenience.

This light may also come on if the tag axle is raised and hard acceleration occurs. To clear and prevent this, make sure the tag axle is lowered before applying full throttle.

**! NOTICE**

**With the ABS indicator light on, standard brakes are functional, but there is no "anti-lock" feature available.**

**! CAUTION**

**A raised tag axle (if so equipped) that gets automatically lowered above 1st gear can cause a fault to occur, so be sure it is lowered before hard acceleration.**

### Low Rear Brake Pressure Warning

The low rear brakes indicator light comes on when the air pressure supply to the rear service and emergency brakes drops below 65 psi.

### Low Front Brake Pressure Warning

Indicates the same as for the rear brakes, but for the front brakes.

### DPF (Diesel Particulate Filter)

The DPF indicator illuminates when the normal regeneration process cannot clear the filter, requiring the driver to activate the regeneration of the filter manually by pressing the **Regen** switch. See a more detailed description of the relation between the DPF filter and the regen light on page 2.5.

### Hot Exhaust

This light alerts the driver when the engine exhaust is above 450° F, probably due to the DPF filter-regen process. Extra caution should be taken when driving in pedestrian-congested areas or through fire-sensitive terrain such as dry grass or brush.

### Wait-to-Start

The wait-to-start indicator light is on while the grid heater is coming to operating temperature. The grid heater preheats air for combustion that, in turn, warms the start-up fuel. Proper fuel starting temperature helps prevent excessive engine wear and provides cleaner exhaust emissions.

### ATC

The ATC indicator light comes on if the Automatic Traction Control (ATC) system senses a loss of traction and the system is activated.

### Entry Step Out

The entry-step-out indicator light indicates when the entry step is extended. When the entry step switch is on, the step extends automatically when the coach door is opened. The step then retracts automatically when the ignition is turned **on** and the door is shut. If so desired, the steps can be left in the retracted position by turning the entry step switch **off** after the steps are in and the ignition switch is turned off.

The automatic mode can be overridden in any position by setting the switch to **off**, enabling the step to be extended while the coach engine is running and the entry door is open.

### High Beam
The high beam indicator light is illuminated when the headlight high beams are on.

### Tag (if equipped)
Illuminates when the tag axle is raised.

### Low Hydraulic Fluid Level
If the low hydraulic fluid level indicator light comes on, stop the vehicle as soon as possible and determine the reason for the warning. It could simply be an indication of inadequate fluid in the reservoir or a more serious problem, such as a failed hose or fitting. Check the area of the hydraulic fluid reservoir and hoses for fluid leakage, as well as beneath the coach.

This indication could also be from the indicator itself. Press and release the reset switch located in the engine compartment. If the light come back on after about 2 minutes, the filter may need to be serviced.

If no indications of a significant leak are found, simply check the fluid level dipstick and refill the reservoir to the proper level. If a significant leak is found have a qualified service technician check the coach's hydraulic system as soon as possible.

### Coach Leveling
This light indicates the HWH leveling system is activated and not in the **Travel** mode.

### Water-in-Fuel
The water-in-fuel light appears when the water level reaches the sensor located near the bottom of the fuel filters. When this occurs the water may be drained through the opening at the base of the filters. The sensor light goes out when the water has been completely drained and only fuel covers the sensors (when installed).

## Weldex Rear Vision Monitor
The Weldex backup monitor (**Figure 2.10**, page 2.20) is standard equipment on your Inspire motorcoach, and is mounted to the right of the steering wheel on the right dash panel. The necessary adjustment controls are located on the face of the unit. See the manufacturer's operation manual in the Coach Information Kit for detailed information about the use and control of the monitor.

The controls on the front of the Weldex unit are:

1 **Remote control sensor**

2 **Down/Up** selects items in the on-screen menu.

3 **Left** selects on/off for left camera (active with side-view camera option)

4 **Rear** selects on/off for the rear camera

5 **Right** selects on/off for right camera (active with side-view camera option)

6 **Menu** displays any audio/video information (inactive, unless it is connected to an A/V system) if pressed for less than a second. If pressed for longer than a second, the main menu appears.

7 **Dim** acts as a dimmer control for the screen display.

8 **Volume** (not active)

9 **Power** turns the monitor on and off.

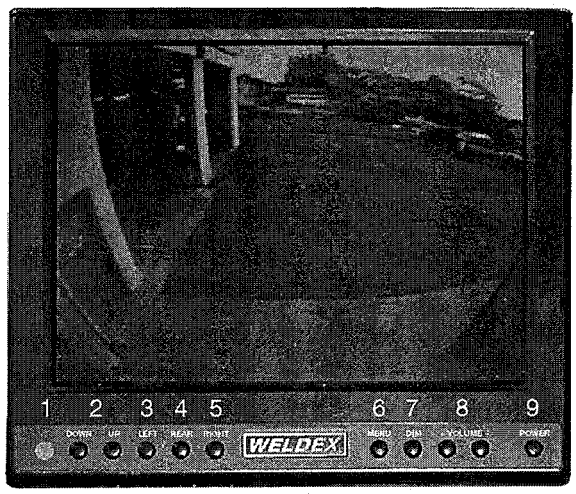



**Figure 2.10**
**Weldex rear-view monitor**

## Kenwood In-Dash Entertainment Systems

The standard Kenwood KDC-MP235 (**Figure 2.11**) is an AM/FM stereo system. By pressing the **Dash/Home** switch, you can play it through either the cab-area speakers or throughout the coach. The controller has an auxiliary input port on the faceplate to connect a portable music or gaming system or your iPod.

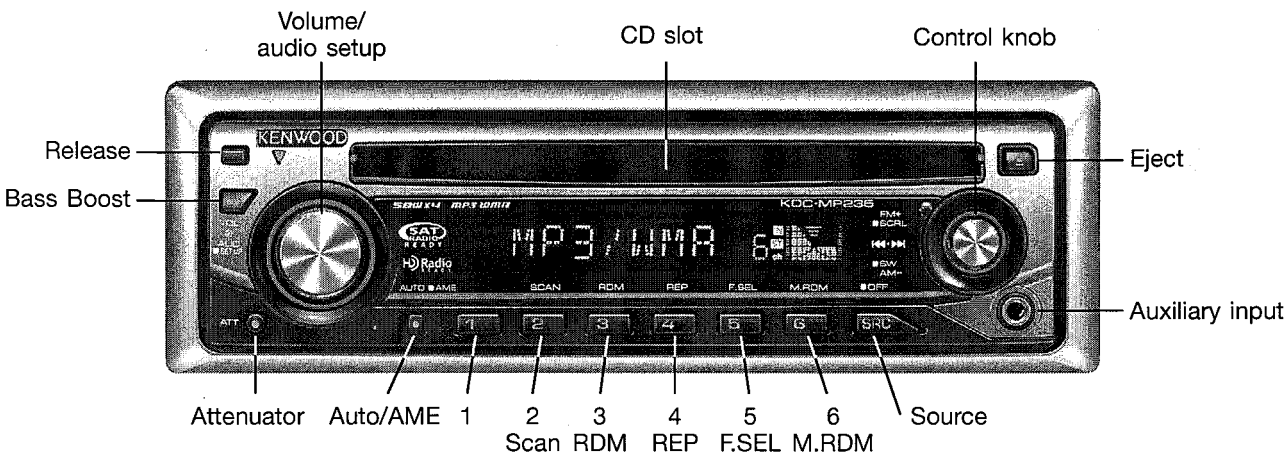



**Figure 2.11**
**Kenwood KDC-MP235 AM/FM/CD player**

## Basic Operation

**Tables 2.1** (page 2.20) and **2.2** (page 2.22) describe the basic functions of the controls and an overview of basic operation for the two systems. For more detailed information on the Kenwood system, refer to the manufacturer's manual filed in the Coach Information Kit.

**Note:** Optional equipment that appear in the tables may or may not be available on your coach. Active systems appear as solid color while unavailable systems appear gray and are unresponsive. For more detailed information on the Kenwood system, refer to the manufacturer's manual filed in the Coach Information Kit.

If GPS navigation is optioned, the Kenwood KVT-617DVD (**Figure 2.12**, page 2.23) is installed. It is equipped with its own 7" retractable monitor to view DVD/VCD, navigation, and other video sources.

**Table 2.1 — Basic Controls - KDC-MP235**

| Button | Function |
|---|---|
| **Volume** (in conjunction with SRC, selects/ adjusts audio volume and setup) | To adjust audio:<br>1 Press **src** to select source to adjust.<br>2 Press **vol** to enter audio control mode.<br>3 Press **vol** again to toggle between alternate audio items displayed on screen.<br>4 Press any button but **volume** and **Att** to exit audio control mode. |
| **Release** (detaches faceplate) | Press to remove faceplate as a theft deterrent. |
| **Bass Boost** (enhances bass) | Press to display alternate bass settings — levels 1, 2, and Off |
| **Att** (attenuator) (turns volume down quickly) | 1 Press to attenuate the volume (**Att** on, displayed on screen).<br>2 Press again to bring volume back to where it was (**Att** off).<br>**Note:** When turned on, high and low tones are enhanced during low volume. |
| **Auto/AME** (auto memory entry) (automatically stores stations with good reception) | 1 Push control knob up or down to select AM or FM band.<br>2 Press **ame** for 2 seconds to display **A-MEMORY**.<br>3 When 6 strong stations are received and entered into memory AME entry ends. |
| **Scan** (2 button) (searches for song by playing first part of each song on disc) | 1 Press **scan**. **TRC SCN/FILE SCN** is displayed.<br>2 Press **scan** again when the song you want is playing. |
| **RDM** (3 button/random play) (plays all songs randomly on disc or audio file) | 1 Press **rdm** to start random play. **DISC RDM/ FOLD RDM** is displayed.<br>2 Press **rdm** again to turn off random play.<br>3 Press control knob toward ▶▶\| to go to next random song. |

**(continued on next page)**

Table 2.2 — Basic Controls - KVT-MP617DVD

| Button | Function |
|---|---|
| **F.SEL** (5 button/folder select) (quickly selects desired folder) | 1 Press **f.sel**. **FLD SEL** is displayed. Folder name is displayed as they are selected.<br>2 Push control knob to select AM or FM to select folder level, up or down.<br>3 Press ⏮ to go to the previous folder or ⏭ to the following one.<br>4 Press control knob (FM) for 2 seconds to scroll folder names.<br>5 Press control knob again to stop on folder of choice.<br>6 Press **f.sel** to cancel the folder select mode. |
| **M.RDM** (6 button/magazine random play) (plays in random order the songs on all discs in CD changer) | 1 Press **m.rdm** to start random play. **MGZN RDM** is displayed.<br>2 Press **m.rdm** again to stop random play.<br>3 Press control knob toward ⏭ to go to next random song. |
| **SRC** (source) (turns power off/on, selects source of audio sound, works in conjunction with other controls for numerous functions.) | Press **src** to turn power on/off.<br>See Volume topic for audio selection/setup.<br>**Note:** Refer to Kenwood manual for detailed operational instructions. |
| ⏏ (eject disc) | Press to eject the DVD or CD disc. |

Table 2.2 — Basic Controls - KVT-MP617DVD

| Button | Function |
|---|---|
| **Release** | Press to remove protection panel (faceplate) |
| **Open/Close** | Press to extend or retract monitor |
| **Att** (attenuator) | Attenuates the volume. Press again to cancel muting |
| ▲ ▼ (volume) | Adjusts the volume. |
| **AUTO** (**Seek**) (sets a station selection) | Press to go to next station with good reception (Auto 1).<br>Press again to tune in stations stored in memory (Auto 2).<br>Press again to manually go to next station. |

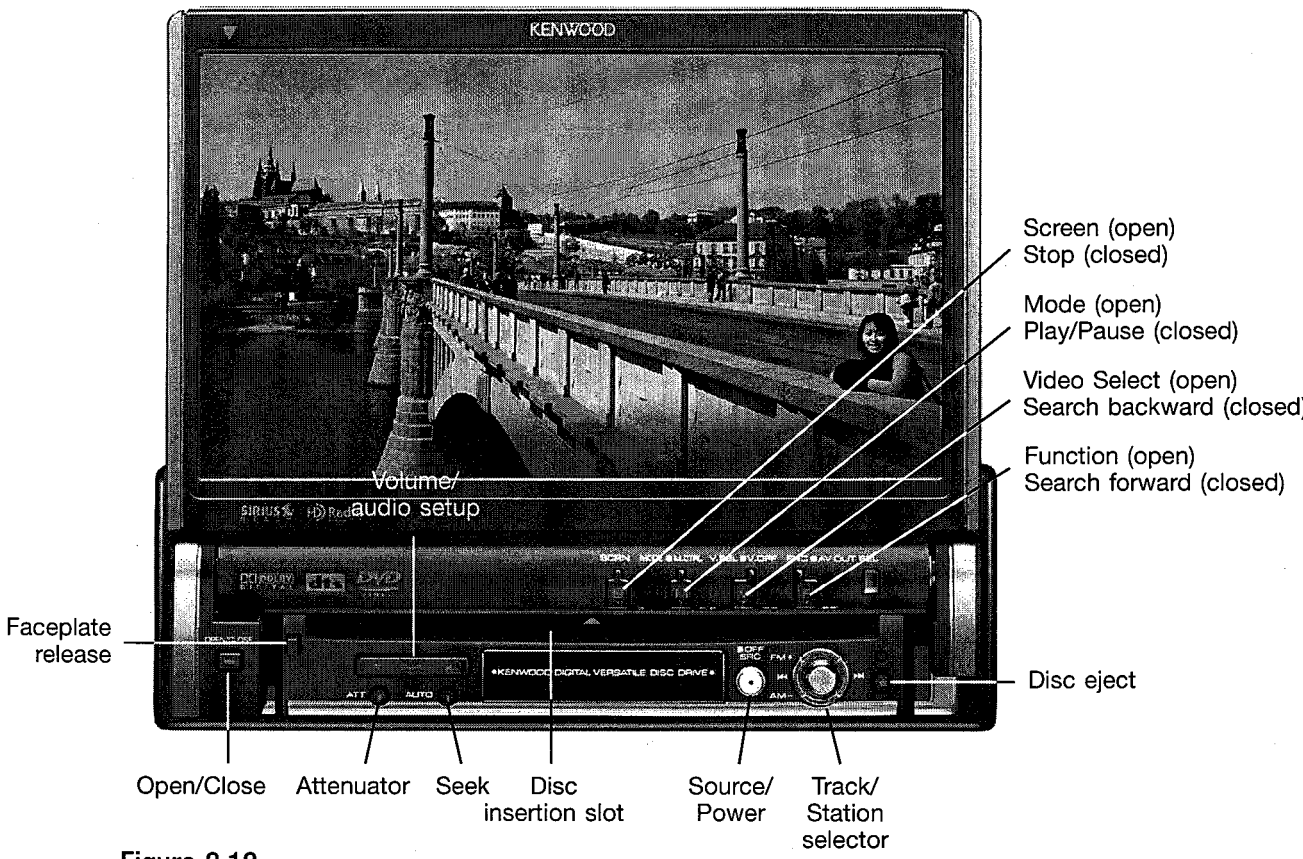



**Figure 2.12**
**Kenwood KVT-617DVD AM/FM/CD/DVD receiver/monitor (Allure 420 FE)**

| Button | Function |
|---|---|
| **SRC**<br>(source selection/power) | Press to select between modes in following order:<br>1 Sirius radio*<br>2 DAB (Digital Audio Broadcasting)*<br>3 Tuner or HD radio*<br>4 Built-in disc player<br>5 External disc player*<br>6 TV* or video<br>7 External disc changer*<br>8 Aux ext*<br>9 Navigation<br>10 Weather band tuner*<br>11 Standby mode<br>Press longer than 1 second to shut off power. |
| **Joystick**<br>(track or station/<br>band or folder selector) | Toggle to ◄◄ or ►► to select previous or next music or chapter, track, or frequency.<br>Select **AM** (AM band or previous folder/disc)<br>Select FM (FM 1, 2, 3 or next folder/disc) |

**(continued on next page)**

Table 2.2 — Basic Controls - KVT-MP617DVD (continued)

| Button | Function |
|---|---|
| ⏏ (eject disc) | Press to eject the DVD or CD disc. |
| **Scrn** (when open)<br>■ (when closed) | Press to display:<br>• **Screen Setup** — adjusts picture quality<br>• **Angle Setup** — sets monitor angle and open/close speed<br>Press to stop disc play |
| **Mode/M.Cntrl** (when open)<br>►II (when closed) | Press to select between screen display modes in following order: **Full**, **Justify**, **Cinema**, **Zoom**, **Normal**<br>Press longer than 1 second to display DVD menu options.<br>Pauses and/or continues disc play |
| **V. Select/V.Off** (when open)<br>I◄◄ (when closed) | Press to select between video sources in following order:<br>1 DVD/VCD<br>2 TV*/video<br>3 Cameras<br>4 Navigation<br>Press longer than 1 second to turn off video display.<br>Press to search a disc backward |
| **FNC/AV. OUT**<br>►►I (when closed) | Press to select between video source function in following order:<br>1 **Picture** and **Easy Control Panel**<br>2 **Source Control**<br>3 **Picture**<br>Press longer than 1 second to view source at AV Output terminal.<br>Press to search a disc forward |

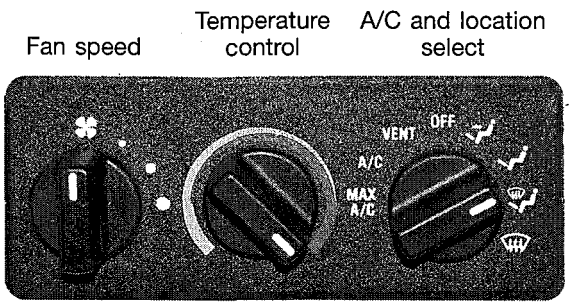



Figure 2.13
Heating and air conditioning controls

## Air Conditioning/Heating Controls

The controls for operating the dash area's air conditioning/heating system (**Figure 2.13**) are located on a small panel to the right of the steering column. This is often referred to as the "over-the-road" system, because it is only functional while the chassis engine is running.

## Cooling and Heating

To cool the dash area, turn the right knob to **max A/C** or **A/C** and the middle knob to cool. The knob on the left of the panel controls the fan speed.

To engage the heat, turn the right knob to a location setting, the center temperature control knob to the right for warmer, the left for cooler, and select a fan speed with the left knob.

### 12 VDC Supply
This outlet supplies 12 VDC power through an appropriate adapter. Do not exceed a 20-amp draw at this location.

### Ignition
When the key is rotated clockwise to the first stop, the switch is **on** and activates dash instruments and illuminate switches and legends. To start the engine, rotate the key to the first clockwise stop, wait for the **wait-to-start** indicator light on the center dash to go out, then rotate the key clockwise to the **start** position. Release the key as soon as the engine starts. The key returns to the **on** position once it is released. Turn the key to the **off** (vertical) position to stop the engine and to disengage the dash instruments and lights. From the **off** position, the key may also be turned counterclockwise to the **acc** (accessory) position.

**Carling Switches**:

### Visor
1 switch (Inspire 360 FE, located on the lower right dash)
2 switches, one for each side (Inspire 360)

Raises and lowers the electrically controlled window sun visor(s) on the inside of the windshield.

### Curb Lights
This switch illuminates exterior lights located at floor level on the side walls of the coach.

### Dash/Home
This switch allows you to select between the optional Home Theater System or the dash stereo system for playing through the ceiling-mounted speakers in the front part of the coach. When the switch is on (**Dash** position), the dash stereo is connected to the speakers.

### Step Cover
Press to extend or retract the entry step cover.

## Monitor Panels
Aside from the panels and controls accessible to the driver and passenger in the front portion of the coach, there are monitor and control panels for many of the coach's house systems, conveniently located on an enclosed cabinet panel across from the galley. Panels and controllers vary according to floor plan, but a typical layout of this panel includes:

### Tank Level Monitor
The SeeLevel I tank monitor panel (**Figure 2.14**, page 2.26) displays the levels in the water and sewer holding tanks and the LP gas tank, showing the levels on a color-coded LED bar graph in 1/8-tank increments, updated every second. In addition, the system can display the operating characteristics of each of the tank sending units.

The display is the only system component that is accessed by the user. All user input to the display is done using the four buttons along the bottom of the display.

**To reading the tank level:**

- Press the button corresponding to the tank to be checked and release it. The display powers up and shows the level on the bar graph.
  - — If the fresh water or LPG tank is being checked, the display shows a row of green LEDs, with each LED indicating 1/8 of the tank. For example, if the tank is 5/8 full, then 5 green LEDs are lit. If the level is down to 1/8 of the tank, then one red and one orange LED is lit, and if the tank is empty then a single red LED is lit.

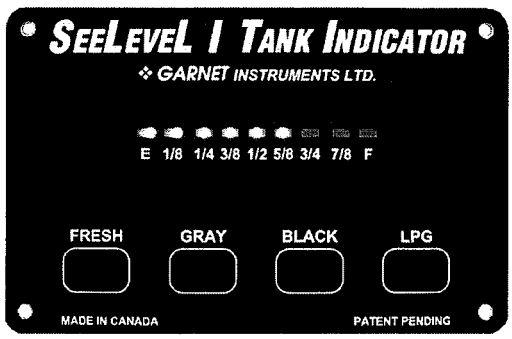



Figure 2.14
Holding tank level monitor

  - — If the wastewater tank is being checked, the display shows the same row of green LEDs with each LED indicating 1/8 of the tank, except that the 7/8 LED is orange and the full LED is be red.
- If no other button is pressed, the display shuts itself off after about 5 seconds.
- If a button is held down, the display rechecks the level once per second and shows the updated level.
- If another button is pressed before the 5 second time is up for the first button, the display immediately switches to showing the new tank. The 5 second time-out is restarted every time a button is pressed.
- By pressing two buttons at once, the diagnostic functions can be accessed.

## Magnum Inverter/Charger (Inspire 360 FE)

This panel (**Figure 2.15**) enables the user to convert direct current (DC) from the batteries to alternating current (AC) to be used to power the domestic (house) appliances and systems. When a shore source of power is available, it converts the incoming AC current to DC and uses this to charge the batteries as needed. See the description of the system in Chapter 3 of this manual, as well as the Magnum manufacturer's manual in the Coach Information Kit.

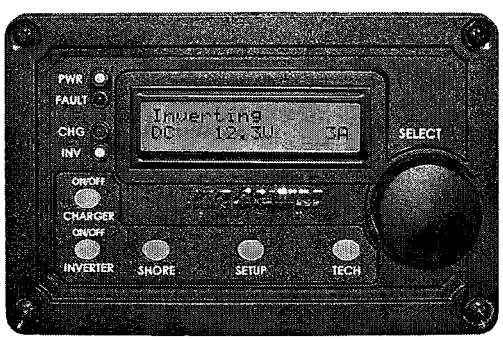



Figure 2.15
Magnum inverter/charger monitor

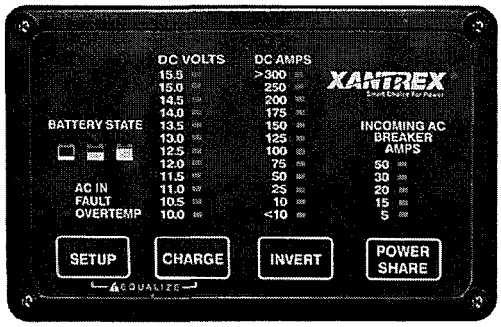



Figure 2.16
Xantrex inverter/charger monitor

## Xantrex Inverter/Charger Monitor (Inspire 360)

The Xantrex inverter/charger provides important AC and DC systems and inverter/charger information, available in a convenient galley location (**Figure 2.16**). The system provides indications for low battery charge, inverter/charger status, DC volts, overload, AC input, and DC amps. The system display is updated every second.

## Intellitec Energy Management System (Inspire 360)

Depending on the available power source — 120 VAC 20- or 30-amp shore power, 240 VAC 50-amp shore power, or generator — the Intellitec EMS (**Figure 2.17**) monitors up to 6 loads for low-voltage switching (air conditioning fans and compressors) as well as large 120 VAC appliances. These are typically heavier loads whose operation can be postponed until a time when current is available for their use. See Chapter 3, **Electrical Systems**, for more details on this system.

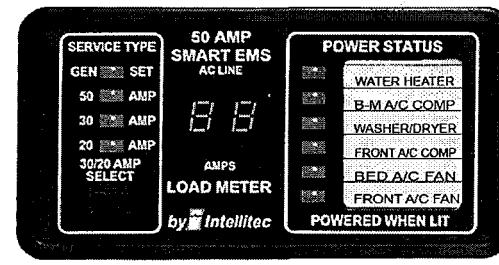



Figure 2.17
Intellitec EMS panel


Figure 2.18
Coleman HVAC control panel

## Coleman HVAC System

Your coach comes with a very efficient and easy-to-use heating and cooling system. The location of the Coleman control panel (**Figure 2.18**) is floorplan dependent.

**Cooling:** To activate the A/C, simply select **Cool**, then the **Zone**, and using the arrow button, set in the desired temperature. All operations are confirmed in the display screen.

**Heating:** After selecting **Heat**, set the preferred **Mode** (either gas or electric operation), select the zone(s) you want to heat, and then set the temperature with the up/down arrow switch. (The Inspire 360 FE has an optional 3rd roof A/C unit.)

**! NOTICE**

**Depending upon the temperature selected for heating, the gas furnace may fire up if the difference between the ambient and selected temps is 5° or greater. This aids in bringing the temperature in the coach up quicker, until the roof units kick in and the furnace shuts off.**

**Fan-Tastic Fan:** turns the galley-area fan on or off and raises or lowers the dome on the roof. Control fan speed at the fan itself.

Light switches activate ceiling lights.

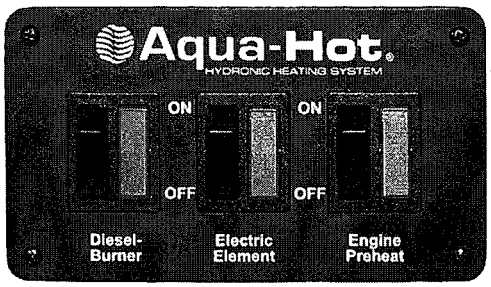



Figure 2.19
Aqua-Hot control panel

### Aqua-Hot Heating System Panel (option)

The panel (**Figure 2.19**) controls the three functions of this hydronic-heating system for the coach. See Chapter 5 for more on the operation of the Aqua-Hot, and refer to the Aqua-Hot operator's manual in your Coach Information Kit.

**Functions of the three switches on the panel are:**

**Diesel:** activates the diesel burner, the main source for heating the water and the interior of the coach. The lighted switch verifies the system is on. The roof air thermostat must be in **furnace** mode before this system heats the coach.

**Electric:** activates the 120 VAC heating element, also indicated by a lighted switch. Wired directly into the coach's 120 VAC system, this system is operational whenever the AC power is available.

**Engine Preheat:** energizes the engine preheat circulation pump, indicated by the lighted switch, circulating heated coolant through the engine's preheat system.

**Gen:** enables remote operation of the auxiliary generator. Press the **gen** switch at the top position for up to 20 seconds or until you hear the generator start. Do not hold the start switch for more than 20 seconds. To stop the generator, press and hold the bottom of the switch until you hear the generator stop. If the generator does not start within 20 seconds, check the generator operator's manual for troubleshooting tips, or refer to the **Generator** section in Chapter 3.

**Slide Room:** extends and retracts the individual slide-outs. From left to right: C (passenger-side bedroom), D (driver-side bedroom), B (passenger-side forward), A (driver-side forward). See to Chapter 5 for a more detailed description on slide-out room extension and retraction of the Power Gear slide-out rooms, as well emergency retraction procedures in case of a system failure. Also refer to the Power Gear manual in the Coach Information Kit.

If the thermostat in the bay registers below-freezing temperatures, the hydronic heater circulates hot coolant through the plumbing bay heat exchanger to help prevent the exposed pipes from freezing.

## Bathroom and Bedroom Control Panels

The bathroom has a three-switch panel on the wall opposite the toilet. Switches for the water pump, bathroom fan, and lights are found here. Just inside the bedroom to the left is the switch for the bedroom ceiling lights.

# Electrical Systems



# ELECTRICAL SYSTEMS

## General Electrical System Safety

As delivered, your RV electrical system has been engineered and checked for performance and safety. Circuit breakers and fuses are installed to protect electrical system circuits from overloading. Do not make any changes to electrical circuitry in your coach. If alterations are required, consult your dealer for assistance in obtaining a safe and approved installation.

An approved power supply cord is attached to the vehicle for hookup to a 120/240 VAC outlet. The 50-amp power cord has a four-pin plug that provides proper grounding through the rounded pin. Grounding is for your protection from electrical shock. Therefore, do not use any adapter or extension cord that breaks the continuity of the grounding circuit. Never remove the grounding pin or connect to a non-grounded receptacle. Never operate your RV's 120 VAC system with an inadequate ground. If you can feel a shock (even a small one) from the vehicle while standing on the ground, immediately disconnect the power cord and locate the trouble. Ground continuity should be continuous from any electrical appliance or the vehicle frame to the distribution panel board (breaker box) through the round pin on the power supply cord to the park receptacle to earth ground.

**Note:** The letters **FE** refer to information unique to the Inspire 360 **Founder's Edition**.

## 120 VAC Electrical System

The 120 VAC system in your coach can be supplied with power from three sources: the engine-driven generator, a public utility power supply tapped with a shore cord, or the electrical inverter unit, which transforms 12 VDC battery power to 120 VAC power.

> **! NOTICE**
>
> **The inverter is NOT designed to function as a primary source of 120 VAC power and should be used only when alternative power sources are NOT available.**

120/240 VAC power is available in your unit when you are plugged into an approved 50-amp, 120/240 VAC power source through the shore power cord and transfer switch. With a 50-amp service, the system (**Figure 3.1**, page 3.2) supplies 50 amps of two-"leg" power, for a total of 100 amps, to power all the coach circuits.

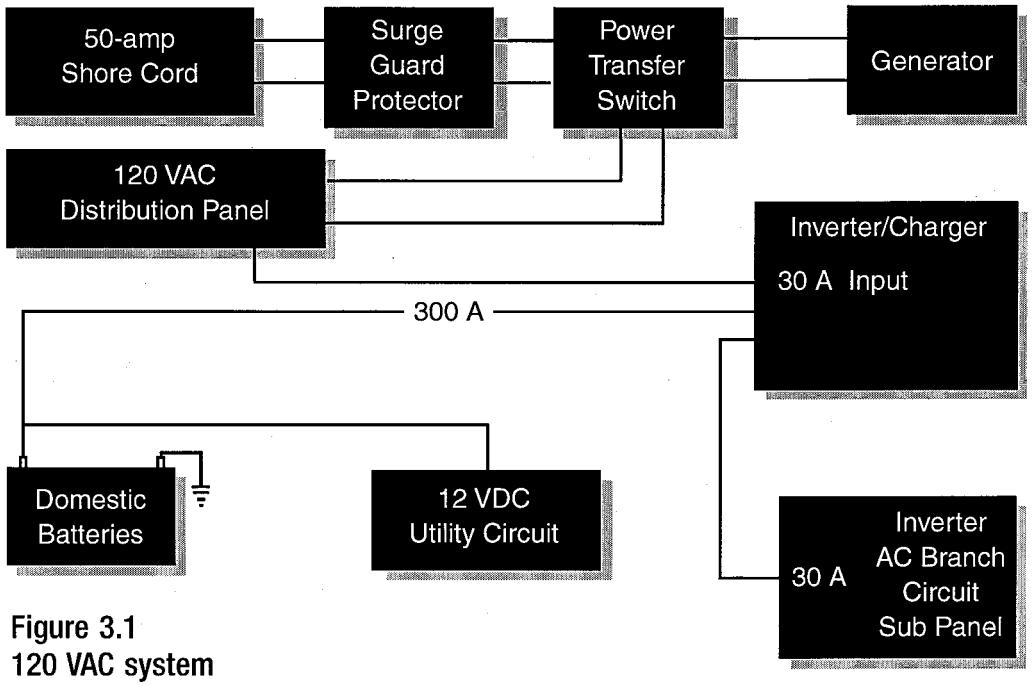



Figure 3.1
120 VAC system

### 120 VAC Circuit Breakers

- Circuit breakers are installed to protect the 120 VAC wiring in your coach. The breakers are located in the power distribution panel. This main electrical panel (breaker box) is generally located in the hallway. Be sure to familiarize yourself with its location. If a circuit breaker should trip and open a circuit, locate and remove the cause of the overload and then reset the breaker.
- Ground fault circuit interrupter (GFCI) circuits are designed to protect people from shock hazards. They are used in your coach with 120 VAC receptacles that are near water sources or "wet" areas, such as the bath compartment, outside patio on the exterior of the vehicle, and the kitchen location by the galley sink. This device is not a substitute for proper grounding of you vehicle.

**Note:** Test the device regularly as described on the receptacle label. If it does not work properly, have it replaced by a qualified electrician.

## Shore Power Utility Connection

**To make connection with shore utility power:**

1 See **Figure 3.2** for a graphic depiction of the pieces described below.

2 Locate the 50-amp shore attachment cord provided with the coach. Your coach is equipped with a manual shore cord, located in bay DS-3 or DS-5, depending on floorplan. The cord is rolled up in a hand-powered reel, with an exit port in the bay floor for access to the outside.

3 To complete the shore source connection, plug the end (molded attachment cap) of the shore cord into a 50-amp shore utility receptacle.

**! CAUTION**

**To prevent potential damage to coach 120 VAC equipment, switch the 120 VAC distribution panel Main breakers (located in a galley cabinet) to the Off position while making a shore connection. Once the connection has been made, the breakers may be switched back to the On position.**

**! NOTICE**

- **When connecting the shore cord to an outlet, do NOT use a household extension cord between the shore cord and an outlet. Low voltage could damage the coach.**
- **The coach electrical system is designed to operate from a 50-amp 120/240 VAC service. Any use of adapters to connect to a smaller service, such as 30-amp 120 VAC, results in significantly less power being available to the coach. Failure to manage coach loads appropriately may lead to a tripped circuit breaker at the shore utility connection, resulting in a complete loss of electrical service to the coach.**

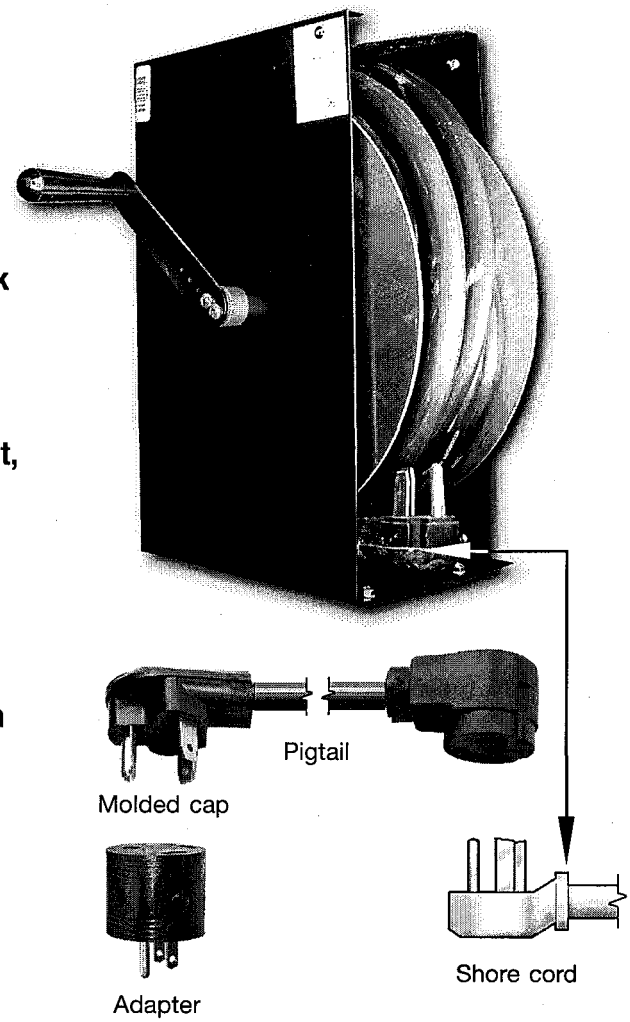



Figure 3.2
Shore cord assembly

**! WARNING**

**Any modification or adaptation of the shore cord's molded head assembly to accept a power supply other than 120 VAC may extensively damage the coach's electrical equipment, voiding the manufacturer's warranty.**

## Shore Cord Connectors

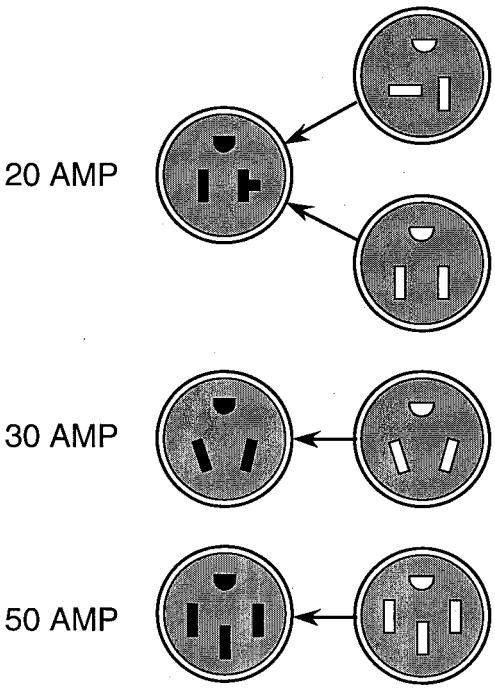
A 50- to 30-amp adapter that connects to the shore cord is included for use when a 50-amp shore utility service receptacle is not available.

**! WARNING**

**Do NOT connect the shore cord to a 250 VAC ONLY power outlet. Figure 3.3 depicts 20- to 50-amp receptacles and 15- to 50-amp RV plug caps.**

**! NOTICE**

**Outlets labeled variously as 110/220, 120/240, or 125/250 VAC are actually identical. Most Country Coach literature illustrates 120/240 VAC.**




125-volt, 2-pole, 3-wire, grounding type, rated 20 amp

125-volt, 2-pole, 3-wire, grounding type, rated 15 amp

125-volt, 2-pole, 3-wire, grounding type, rated 30 amp at 125 VAC (not 250 volts only).

125/250-volt, 3-pole, 4-wire, grounding type, rated 50 amp at 125/250 VAC (not 250 volts only).

Figure 3.3
Shore cord connections

**! WARNING**

**To reduce the danger of electrical shock, inspect the shore cord and receptacle for damage before making any connections. Also, avoid making connections during wet weather.**

**It is recommended that you turn off the shore power circuit breaker prior to making a shore connection.**

### Helpful Hints

- Clean the shore cord (if needed) before retracting it to prevent dirt from getting in the moving parts (**Figure 3.2**, page 3.2).
- Avoid extracting more shore cord than needed. This minimizes trip hazards.
- Plug the shore cord into the proper shore service only. Use appropriate adapters where necessary (**Figure 3.3**).
- Inspect the shore cord regularly for cuts and damaged parts. Replace faulty or damaged cords.


Figure 3.4
Surge Guard
power supply potector

## Surge Guard Power Protector (Inspire 360)

Your coach is equipped with a Surge Guard power supply protector, which is located in bay DS-3, just behind the shore cord reel. The guard protects AC electrical systems (**Figure 3.4**). The normal operating range of the Surge Guard is between 102 and 132 VAC.

**! NOTICE**

**1 Plug the shore cord connection into an approved RV receptacle.**

**2 Verify both line lights are illuminated, the danger light is off, and the delay indicator is flashing.**

**3 When the light stops flashing (in 2 minutes 16 seconds), verify RV power is on. To protect the AC system, no 120 VAC power is available during the 2 minutes 16 seconds delay.**

Any voltage level above or below this operating range for a duration of at least eight seconds activates the Surge Guard over/under voltage protection, preventing any AC power from entering the coach. This condition lasts until voltage returns to the normal operating range. AC power may be restored from within the coach by use of the generator.

The caution light indicates a wiring fault, such as reverse polarity or an open neutral. Check this before connecting to shore power. This condition disconnects power to the coach and cannot be bypassed.

## Intellitec Energy Management System (Inspire 360)

The Intellitec EMS (**Figure 3.5**) is typically-located in the galley-area monitor panel. Depending on the available power source — 120 VAC 20- or 30-amp shore power, 240 VAC 50-amp shore power, or generator — the EMS monitors up to 6 loads for low-voltage switching (air conditioning fans and compressors) as well as large 120 VAC appliances. These are typically heavier loads whose operation can be postponed until a time when current is available for their use.

If the available power source is 30-amp 120 VAC shore power, the EMS attempts to maintain a current draw of less than 30 amps, thus preventing the tripping of the shore circuit breakers.

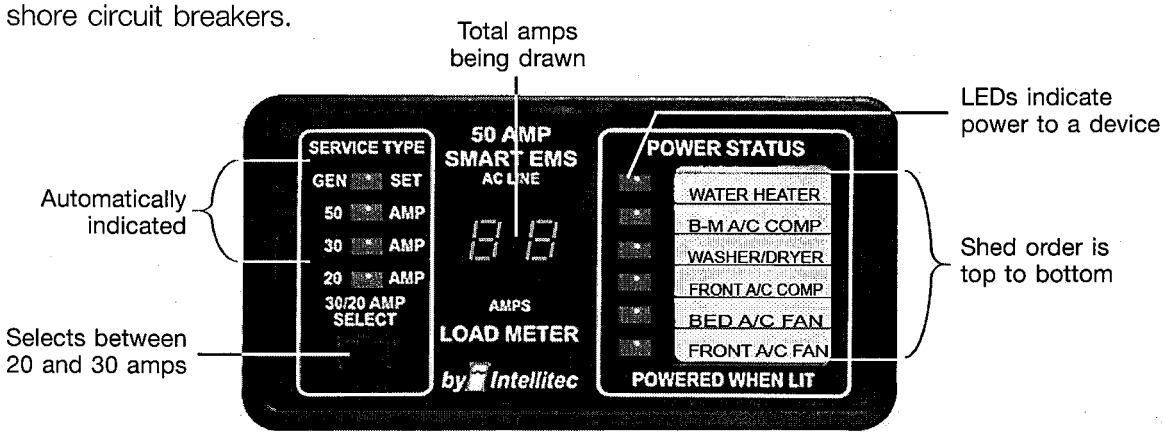



**Figure 3.5**
**Intellitec EMS panel**

### EMS Panel Description

**Service Type LEDs:** On the left side of the panel are four LEDs that indicate the source of power. Gen Set, 50-amp 240 VAC, and 30-amp 120 VAC are detected and indicated automatically; 20 amp is not.

- When 120 VAC power is on line, the system is always in the 30-amp mode. When 20-amp power is being used, the operator must manually select the 20-amp mode (20-amp LED illuminated) by pressing the **30/20 amp select** button.

**Load Meter:** When 120 VAC is being used, this 2-digit screen indicates the total number of amps being drawn by all the appliance loads in the coach. When 240 VAC is on line, the meter is blank.

**Power Status LEDs:** These lights are illuminated when there is power to that system or device.

- If the total load exceeds the service limit (20 or 30 amps for a 120 VAC, 50 amps for a 240 VAC power source) the EMS begins shedding loads, beginning at the top of the list.
- As it turns off a load, it stores the amperage value for that load in memory, so that when there is sufficient current available again, it knows when to turn that load back on, in reverse order, of course.
- There is a 2-minute minimum delay before a load can be reactivated. During the delay, if enough current is available to energize the load, the LED status indicator flashes. When the load is energized, the indicator remains on.

For a more detailed description of its function and operation, refer to the Quick Guide and the manufacturer manuals located in your Coach Information Kit.

**! NOTICE**

**Maintain ample free space around the inverter/charger housing for air circulation.**

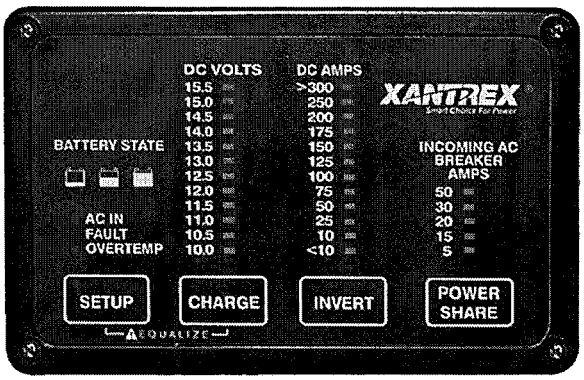



Figure 3.6
Xantrex Inverter/charger monitor

## Xantrex Inverter/Charger Monitor (Inspire 360)

The monitor for the Xantrex Freedom 458 inverter/charger provides important AC and DC systems and inverter/charger information, available in a convenient galley location (**Figure 3.6**). A remote on/off power switch with bright and easy-to-read indicators provides you with low battery indicator, inverter/charger status, DC volts indicator, overload indicator, AC input indicator and DC amp indicator. The system display is updated every second.

### Inverter Panel Operation

**Setup:** Press and hold for five seconds until the LED flashes to enter **Setup** mode. This allows the manipulation of the **Charge, Invert,** and **Power Share** buttons, setting the preferred parameters for the inverting and battery-charging functions of your coach. After five seconds of inactivity, the unit exits the **Setup** mode.

**Charge:** Set the amp-hour rating of the batteries by pressing this button during **Setup**. This determines the charge parameters for the batteries. See the Xantrex manuals for default settings. When the **Charge** LED is lit, the charger is on and charging. Charging automatically begins when external AC power is detected.

**Note:** Leaving the charger on helps to assure a fully-charged battery.

**Invert:** If the Invert LED is on and not flashing, the inverter is operating (converting DC battery current to AC power). When the LED is off, the inverter is off. If the LED is flashing, the inverter is in standby mode, waiting for external AC power to be removed so it can begin inverting. When there is no external AC power, a flashing LED indicates the inverter is in **Idle Mode.** Idle mode prevents unnecessary drain of the batteries when no external AC power is available.

**Note:** When leaving the coach unattended, it's a good idea to turn the inverter off to avoid discharging the batteries.

**Power Share:** Press this button to set the **Incoming AC Breaker** to the amperage of the external power source before plugging into that source. This also limits the amount of external AC current being used by the charger, preventing the external AC circuit breakers from tripping. Select a lower **Power Share** setting to reduce AC power consumption by the charger.

**Note:** Setting the **Power Share** setting lower requires more time to fully charge the battery.

**Battery State:** These LEDs approximate the charge state of the batteries, based on voltage sampled over a period of time under the current load conditions. The indication does not represent the actual amp-hour charge remaining in the batteries.

**Note:** Charge mode must be off to enable an accurate indication.

Battery voltage is low; charging is recommended.
In charge mode, this indicates **Bulk.**

Battery voltage is within normal range.
In charge mode, this indicates **Acceptance.**

Battery voltage is at its highest and fully charged.
In charge mode, this indicates **Float.**

Refer to the Xantrex manuals in the Coach Information Kit for more detailed information on the operation and troubleshooting of the remote panel.

## Magnum Inverter/Charger (Inspire 360 FE)

The Magnum inverter/charger monitor panel provides important information about AC and DC systems and the inverter/charger. It is located in a convenient cabinet near the galley (**Figure 3.7**, page 3.8).

### How an Inverter/Charger Works

There are two modes of operation associated with an inverter/charger:

**Inverter Mode:** Direct current (DC) from the vehicle's batteries is transformed into alternating current (AC) for powering your household electrical devices.

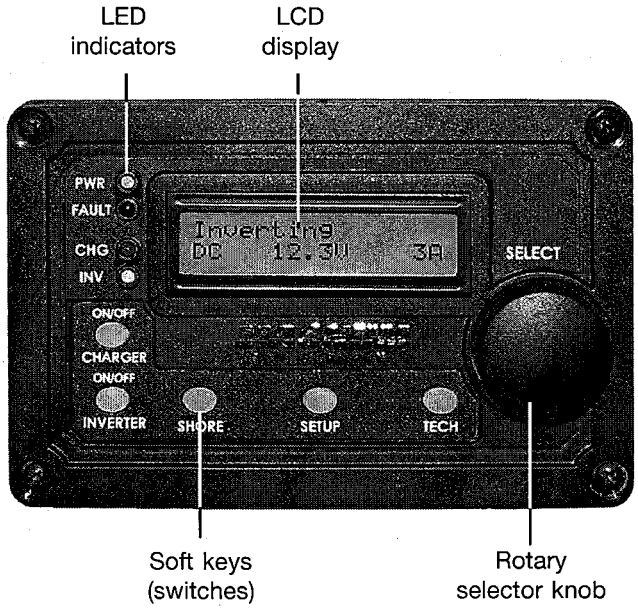



**Figure 3.7**
**Inverter/charger monitor panel**

**Charger Mode:** Alternating current (AC) is taken directly from shore power (or other AC sources) and passed directly to the domestic appliances. At the same time, the incoming AC current is also converted to DC current to recharge the vehicle's batteries.

## Basic Operation of the Magnum Inverter/Charger

The **Rotary Knob** is similar to a dash radio knob and is used to move easily between menus to select program options. Turn the rotary knob clockwise to increase selections and counter-clockwise to decrease selections. Push the knob to save the selection displayed in the LCD screen.

**Soft keys** are pressed to access the required function. Then the rotary knob is used to scroll through the selections. Press the rotary knob to save the selection.

- **Shore** sets the appropriate breaker size for the incoming shore power and is used to control the amount of AC current the battery charger uses from HOT 1 IN. Selection options are 5, 10, 15, 20, 30, and 50 amps.
- **Setup** configures the inverter/charger.

  **Search** is used to set the search watts at which the inverter comes out of **Sleep** mode. Selections are 3-75 watts.

  **LBCO (Low Battery Cut Out)** is used to set the DC voltage level to shut down the inverter and protect the batteries from over-discharge damage. Selections are 9.0 VDC, 10.0 VDC and 11.0 VDC. DC volts must reach and maintain the LBCO setting for 1 minute before inverter shut down is initiated.

  **Battery Size** is used to select the approximate battery bank capacity. Selections are in 200 amp increments from 200 -1000 amps. Battery capacity is also used to determine absorption time during battery charging. (See Chart 2 in the Magnum operator's manual.)

  **Battery Charge Rate** is used to set the maximum charge rate during bulk, absorption or float charge. Selections are in 10 amp increments from 10% - 100%.

  **Battery Type** is used to select battery type for the battery charge profile. Selections are Gel, AGM (Absorbed Glass Mat), Liquid Lead Acid (Flooded) and Custom (future). (See Chart 1 in the Magnum operator's manual.)

  **Contrast** is used to adjust the LCD contrast.

**AC Dropout Voltage** is used to select the AC voltage threshold (60, 90, 100 VAC) where the inverter transfers from AC line to inverter mode.

- **Tech** (display only) is reserved for the future. This feature is used for troubleshooting the inverter/charger. Options include FET temp, transformer temp, and battery temp.

**LEDs**

- **PWR** (green):
  - Off — no AC power is available from inverter, shore, or generator at the inverter output terminals
  - On — AC power is available from inverter, shore, or generator at the inverter output terminals
- **FAULT** (red):
  - Off — normal operation
  - On — inverter or charger shutdown caused by:
    - Over-temperature (check tech menu for exact cause)
    - Low Battery Voltage (battery voltage below LBCO setting or lower than 9.0 VDC; High Battery Voltage (above 15.5 VDC)
    - AC Overload (loads larger than inverter output capacity)
- **CHG** and **INV** (green):
  Turn on and off with the charger and inverter **On/Off** switches.

**Fault Conditions**

- **Low Battery** indicates the unit has shut down because the battery voltage is below the set point in LBCO. It automatically restarts when battery voltage rises above 12.5 VDC.
- **High Battery** indicates the unit has shut down because the battery voltage has exceeded 15.5 VDC. It automatically restarts when the battery voltage drops below 15.5 VDC.
- **Overtemp** indicates the unit has shut down because the temperature at the transformer or FET board has exceed the safe temperature operating range. It automatically restarts after unit cools down.
- **AC Overload** indicates the unit has shut down because the AC load connected to the inverter output exceeded its maximum output rating.

**! NOTICE**

**When this occurs, reduce the load and manually restart the unit.**

## Inverter Operation

**Inverter On/Off** switches the inverter function on and off. The green inverter LED turns on and off with the switch.

- **INV** (green):
  - Off — inverter off
  - Slow blink — **Search Mode**. AC load below the **Search Watts** setting
  - On — inverter on and supplying AC to output terminals

- **LCD display**:
  - Off — unit is off with no shore or generator AC power applied.
  - Search — unit is in search mode. AC loads are less than the search watts setting.
  - Inverting — unit is inverting power from the batteries into 120 VAC at its output.

## Charger Operation

**Charger On/Off** switches the charger function on and off. The green charger LED turns on and off with the switch. Press and hold the switch for 5 seconds to initiate battery equalization (EQ).

- **CHG** (green):
  - Off — charger off, no shore or generator AC present
  - Fast blink — AC present from shore or generator, synchronizing to AC waveform before relay transfer
  - On — **Bulk**, **Absorb**, **Float**, **Equalize**, or **Battery Full Charge** mode
  - Slow blink — **Charger Standby** (charger off button was pressed with AC available from the shore or generator)
    **Charger Backoff** (charger temperature too hot and the charger automatically reduced charge rate to maintain temperature),
    **Low AC Input Voltage** (input voltage is below 85 VAC, and the charger is automatically disabled to help stabilize AC line voltage)

- **LCD display**:
  - Bulk Charge — The battery charger is delivering maximum current to the batteries.
    The charger remains in bulk charge until the bulk charge voltage is achieved. (See Chart 1 in the Magnum operator's manual.)

**! NOTICE**

**The maximum current can be reduced by adjusting setup options for the battery charge rate and the shore power settings.**

  - Absorption — The second stage of charging, indicating the bulk voltage for the battery type selected has been reached. The DC current starts to taper off in order to maintain the bulk voltage setting. Absorption time is determined by battery bank size selection. (See Chart 2 in the Magnum operator's manual.)

- Float — The charge voltage is reduced at the end of absorption time, to the float voltage setting for the battery type selected. (See Chart 1 in the Magnum operator's manual.)

- Battery Saver™ - **Battery Full** — Maintains the batteries without overcharging,
thus preventing excessive loss of water in flooded batteries or drying out of AGM batteries. After 4 hours in float mode, the charger is switched off and **Battery Full** is indicated. When battery voltage drops to 12.5 VDC, the charger turns on, and it float charges the batteries to a nominal level. Once that level has been reached, the charger returns to **Battery Full** mode to monitor the batteries.

- Equalize — The battery charger is delivering equalized voltage to the batteries for a maximum of 4 hours. (See Chart 1 in the Magnum operator's manual.) Press and hold the switch for 5 seconds to initiate EQ. The LED blinks fast.

**! NOTICE**

- **Equalize mode does not start until the charger is in float or Full Battery mode.**

- **When both the INV and CHG LEDs are on, the inverter is in standby mode. Shore or generator AC power is passed through the inverter to the loads. If shore or generator power is lost, the inverter automatically supplies AC power to the loads.**

## Power Source Selection and Transfer Switches

When activating the 120 VAC power system, the power source is selected automatically, based on availability and an established priority. The transfer switch selects from either the shore connection or generator as the primary 120 VAC power source. The generator is wired normally-open and the shore source is wired normally-closed. For example, when making a shore connection, the switch remains unchanged. However, if a shore source is on-line and the generator is activated, the transfer switch monitors the generator power supply for approximately thirty seconds, then it automatically switches to the generator, disconnecting the shore source.

**! NOTICE**

**As the transfer switch changes from the normally-open, to the normally-closed circuit, the switch makes a "click" noise. This is a normal function of the switch. If the switch issues repetitive clicks, a malfunction has occurred and servicing may be required.**

Regardless of whether the shore source or the generator is on-line, the available 120 VAC power is directed immediately from the transfer switch to the two main breakers in the 120 VAC distribution panel. With these breakers in the on position, the power

is distributed to the various branch circuits. If these main breakers are in the off position, distribution of 120 VAC power stops, except for power that may be coming from the inverter. At the distribution panel, the output to the inverter circuits is directed to another transfer switch housed in the inverter/charger. This transfer switch functions similarly, selecting between power delivered from the distribution panel or power from the inverter. Power from the distribution panel has priority over power from the inverter.

**! NOTICE**

- **The power received at the transfer switch has a time delay of approximately 30 seconds at the distribution panel before that power is transferred to the output circuit. However, if the power source is from the inverter, the output circuit is energized immediately. Additionally, the Surge Guard circuit protector adds 2 minutes 16 seconds each time power is connected or transferred.**
- **Attempting to engage the inverter as the power source is unnecessary when 120 VAC power is already on-line.**

The 120 VAC system in your coach can be supplied with power from three sources: the house generator, a public utility power supply tapped with a shore cord, or the electrical inverter unit, that transforms 12 VDC battery power to 120 VAC power.

**! NOTICE**

**The inverter is NOT designed to function as a primary source of 120 VAC power and should be used only when alternative power sources are NOT available.**

## 120 VAC Circuit Breakers

A 120 VAC distribution panel is located in the cabinet below the monitor panel area, across from the galley. A label describing the breakers and circuits is attached to the door of the panel. See the **120 VAC Electrical System** section for information about power source selection.

- Circuit breakers are installed to protect the 120 VAC wiring in your coach. The breakers are located in the power distribution panel. This main electrical panel (breaker box) is generally located in the hallway across from the galley. Be sure to familiarize yourself with its location. If a circuit breaker should trip and open a circuit, locate and remove the cause of the overload and then reset the breaker.
- Ground fault circuit interrupter (GFCI) circuits are designed to protect people from shock hazards. They are used in your coach with all 120 VAC convenience receptacles. This device is not a substitute for proper grounding of your coach.

**Note:** Test the GFCI device regularly as described on the receptacle label. If it does not work properly, have it replaced by a qualified electrician.

The power is delivered to the 120 VAC distribution panel along two legs, and any further service to the coach is controlled by two 50-amp main breakers. To disconnect 120 VAC power in the coach, move both main breakers to the off position.

The circuit breakers provide circuit overload protection. After determining and correcting the cause of a tripped circuit breaker, reset the breaker by switching it completely to the off position and then returning it to the on position.

All interior, general purpose receptacles are on a ground fault interrupter (GFCI) circuit. The circuit is protected by a GFCI receptacle (**Figure 3.8**) that is located in the pantry area or under the refrigerator. GFCI receptacles protect the entire circuit and reduces the risk of electrical shock. However, they do not provide protection from shocks caused by user contact with two or more circuit conductors.

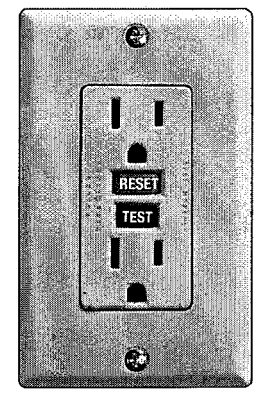



**Figure 3.8**
**GFCI receptacle**

**! NOTICE**

**To ensure operation of the GFCI breaker and the GFCI receptacle, test the devices monthly. With 120 VAC power on-line, press the receptacle's test button to cause the reset button to pop out, disconnecting power to the circuit. To reset the breaker, press the receptacle's reset button. You are advised to keep a log of test dates.**

**! WARNING**

**If the Reset button does NOT pop out or does NOT reset, call a qualified electrician and do NOT use the pair of outlets.**

## Generator

A comprehensive set of instructions on the operation, care, and maintenance of the generator set is supplied with each vehicle, and is found in the Coach Information Kit. An hour meter on the generator makes it convenient to log the number of hours that the generator has been running, so that you can schedule routine servicing. The generator is accessed by extending the roll-out in the front of the coach, activated by a switch in bay DS-1.

**! WARNING**

**LETHAL EXHAUST GAS - A diesel engine discharges deadly carbon monoxide as part of the exhaust when operating. Carbon monoxide (CO) is particularly dangerous in that it is an odorless, tasteless and nonirritating gas, but it can cause death if inhaled for even a short time.**

Have the system inspected frequently, and allow only thoroughly-qualified specialists to install and replace exhaust system components. Be careful when parking your RV to avoid obstructing the exhaust outlet. The exhaust gases must discharge freely.

Otherwise, carbon monoxide may deflect under and into the vehicle or enter through open doors, windows, or vents. Also, make sure that the exhaust is not discharged toward neighboring RV campers or any building.

**Note:** Be especially watchful for exhaust gas accumulation during calm, windless conditions.

### General Precautions

Remember that the function of a generator set is to produce electricity and that wherever electricity is present, there is the potential danger of electrocution. Take the same precautions with electrical appliances in your RV that you would observe in your home. Keep away from electrical circuits and wiring while the generator set is running and have electrical service performed only by a qualified electrician. Make sure unqualified persons — especially children — cannot gain access to your generator set.

**Note:** Keep the compartment door securely latched at all times.

Never touch electrical leads of appliances with wet hands when standing in water or on wet ground. The chance of electrocution is especially high under such conditions.

Keep the compartment and generator set clean and free of debris to minimize the chance of fire. Also remember that hot exhaust gases and exhaust system parts can start grass fires. Keep away from hot engine and generator parts to avoid burning yourself. Consult your owner's and operation manuals for your diesel generator for more information.

The onboard generator is an integral part of the 120 VAC power delivery system. It supplies 35 amps of power (per leg for a total of 70 amps) to all coach circuits. If the generator starts while connected to shore power, the system automatically reverts to generator power. There are no switches to throw.

**! CAUTION**

**To prevent potential damage to coach 120 VAC equipment, switch off the 120 VAC distribution panel main breaker (located in a galley-area cabinet) when initiating generator operation. Once the generator connection has been made, the breakers may be switched back to the On position.**

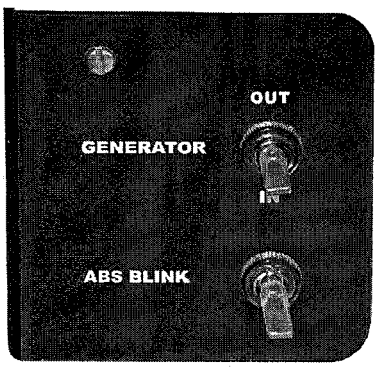



**Figure 3.9**
**Generator access switch**

### Generator Location and Access

The generator is accessible from the front of the coach and is mounted on a convenient electric roll-out assembly. An electric motor extends and retracts the generator. The toggle switch is located on the right side of bay DS-1 and is labeled **Generator In/Out** (**Figure 3.9**), and must be pressed and held for the direction you want the generator to move.

Also included on this panel is the **ABS blink** switch. In case of trouble with the ABS braking system, this switch flashes an appropriate code that indicates the nature of the problem, according to a system troubleshooting guide. It is recommended that any problem with the ABS system be handled by authorized service personnel only.

**! WARNING**

**Make sure the generator is fully retracted before moving the vehicle.**

## Before Starting the Generator

**Use the following procedure to start the generator:**

1 Check engine oil level and, if necessary, fill to the dipstick **Full** mark.

2 Check the vehicle fuel tank for units equipped with diesel generators. The tank should be at least 1/2 full.

3 Ensure that the tail pipe is clear and the piping is tight and in good condition.

4 Ensure that both the air inlet and outlet are free of any obstructions.

5 Turn off all electrical loads by switching them to the **Off** position or setting main circuit breakers to **Off.**

6 Refer to the generator owner's manual for cranking instructions.

7 Allow the engine to warm up for at least 5 minutes to allow internal temperatures to stabilize.

8 Carefully inspect the engine-generator for fuel, oil, and exhaust leaks.

9 Turn on the loads or circuit breakers.

## Start-Stop Procedure

Depress the **start/stop** switch in the start position and hold in this position until the engine is running, then release. Normally, the engine starts within five seconds.

However, if it fails to start after cranking for 20 seconds, release the switch and wait at least 2 minutes before activating the start switch again. Whenever possible, allow for a brief cooling period by running the generator at low or no load for a few minutes just before shutdown. To stop the generator, depress the switch in the stop position and hold until the set comes to a complete halt.

1 Check to see that all air conditioning units are turned off before to starting the generator. Allow the generator to warm up for approximately 60 seconds before turning on any air conditioning units.

2 Diesel-powered generators are equipped with a preheat feature that, in this case, is activated when the start/stop switch is depressed. This process could take 15 to 30 seconds, depending on outside temperatures.

3 Push the generator **start/stop** switch to the **Start** position and maintain pressure until the generator starts, but not for more than 20 seconds.

## Generator Troubleshooting

Check the following conditions if the generator fails to start:

- **Diesel fuel:** The generator uses the same fuel tank as the coach engine.

However, to prevent depletion of the chassis fuel, the generator's fuel pickup tube is shorter than the one for the coach engine.

- **Electrical:** A possible blown fuse on the generator panel or insufficient battery voltage may cause problems.
- **Oil pressure:** The generator has a low-oil pressure shutdown that prevents damage to the engine.
- **Low coolant:** The generator automatically shuts down if it overheats.

If the generator starts but fails to deliver a 120 VAC output, check and reset the circuit breaker located on the generator's control box.

### Generator Maintenance

**! CAUTION**

**Incorrect service or parts replacement can result in severe personal injury and/or equipment damage. Service personnel must be qualified to perform electrical and or mechanical service.**

**! WARNING**

**Never loosen the cap or check the coolant level when the generator is running or the radiator is hot to the touch. Steam or hot coolant can cause severe burns.**

Generator coolant level should be checked on a periodic schedule. The best time to perform these checks is late spring and late fall, in preparation for the summer and winter months. For more detailed starting, operating, troubleshooting, and maintenance instructions refer to the generator owner's manual located in your Coach Information Kit.

### Maintenance Schedule

Your generator is designed to provide years of reliable service. **Tables 3.1** and **3.2** (page 3.17) are suggested maintenance schedules designed to ensure maximum generator serviceability. For more complete maintenance and operational information, refer to the Coach Information Kit.

**Table 3.1 — Onan generator maintenance schedule (Onan manual)**

| Service Item | Monthly | 50 hrs | 150 hrs | 250 hrs | 500 hrs |
|---|---|---|---|---|---|
| Clean & check battery & connections | 3 | | | | |
| Clean spark arrester | | | 5 | | |
| Change oil/oil filter – Quiet Diesel 10000/12500 | | 1-4 | | 2-4 | |
| Change air filter | | | | | 2,5 |
| Change fuel filter – Quiet Diesel | | | | | 5 |
| Schedule service center tune-up | | | | | 5,6 |

1: As a part of engine break-in, change the engine oil after the first 20-50 hours of operation.
2: Perform more often when operating in dusty environments.
3: Perform more often when operating in hot weather.
4: Perform at least once a year.
5: Perform sooner if engine performance deteriorates.
6: Must be performed by a qualified mechanic.

**Table 3.2 — Optional PowerTech generator maintenance schedule (Caterpillar manual)**

| Service Item | Daily | 150 hrs | 250 hrs | 500 hrs | 1000 hrs | Remarks |
|---|---|---|---|---|---|---|
| Check engine oil level | X | | | | | add as needed |
| Check for oil deterioration & leaks | X | | | | | |
| Change engine oil & filter * | | | | | | or once a year |
| Check engine coolant level | X | | X | | | add as needed |
| Check for coolant leaks | X | | | | | |
| Change engine coolant | | | | | X | or once a year |
| Check radiator hoses & clamps | | | | X | | or once a year |
| Check fuel level | X | | | | | add as needed |
| Check for fuel leaks | X | | | | | |
| Change fuel filter | | | | X | | or once a year |
| Replace fuel hoses | | | | | X | or every 2 years |
| Change air filter ** | | | | X | | or once a year |
| Check for worn or loose belts | X | | | | | replace 2 years |
| Check exhaust gas condition | X | | | | | |
| Clean spark arrestor muffler | | X | | | | or once a year |
| Check for abnormal engine noise | X | | | | | |
| Check for abnormal generator noise | X | | | | | |

* Engine oil and filter must be changed after the first 50 hours of operation. Then every 100 hours or once a year, whichever comes first.

** Air filter replacement interval varies depending on operating conditions. Adverse conditions may require frequent service.

# 12 VDC Electrical System

Your coach is equipped with two independent 12 VDC electrical systems: one for supplying chassis demands, and the other for domestic use. The chassis system consists of two Group 31 batteries designed to start heavy diesel engines. Four 6 VDC deep-cycle batteries connected in an array to supply domestic demands.

## Chassis System

The primary function of the chassis battery is to start the engine and to power the chassis systems. From the positive terminal of the chassis battery, power is directed to the starter motor and the chassis-disconnect switch, (**Figure 3.10**, page 3.18) located on the right side of the service bay immediately to the rear of the battery bay.

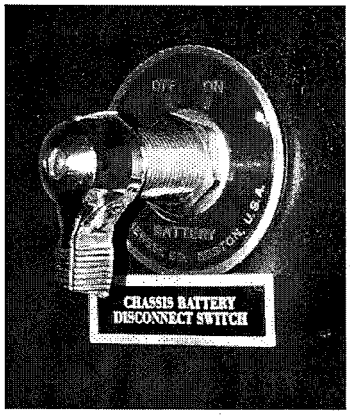



**Figure 3.10**
**Chassis-disconnect switch**

At this same location, you'll find circuit breakers for the grid heater, starter solenoid, ignition relay, and the battery boost circuit.

The chassis-disconnect switch governs any further distribution of 12 VDC power to the chassis. With the switch in the **off** position, the coach is disabled, making it impossible to start the engine or use any chassis electrical systems. With the chassis-disconnect switch in the **on** position, power is directed to the hot terminal of a manually resettable 200-amp breaker. Power is then routed to a set of circuit breakers that service the chassis. When the engine is not running and the disconnect switch is in the **on** position, chassis-related power demands are drawn directly from the chassis battery. Extended power use under these conditions may result in discharging the chassis battery (see the **Batteries** section). For more information on the chassis electrical system, refer to the DynoMax chassis part of this Owner's Guide.

### Domestic System

The primary function of the domestic batteries is to power the furnace, fans, electric step, clock, radios, LP gas alarm, refrigerator, backup monitor, A/V components, monitor panel, all interior and non-chassis exterior lights, and the inverter.

All domestic wiring is protected by a breaker located in the service bay on the passenger side of the coach, directly behind the battery bay. Individual components and branch circuits are further protected by breakers and fuses located throughout the coach. The inverter is protected by internal fuses as well as at the main 120 VAC breaker panel in the bedroom.

12 VDC domestic power is routed through a relay controlled by the domestic battery-disconnect switch, located on the entry switch panel. Leave this switch on for normal operation; turn it off if the coach is to be left unattended for an extended period. The 12 VDC distribution panel is self-contained and does not require maintenance.

## Batteries

Your coach is equipped with two types of independently-functioning batteries. Four 6 VDC batteries, located in the battery bay, are used to supply the domestic 12 VDC system. These batteries are designed to allow a low-current draw for an extended period of time and are constructed to withstand repeated deep cycling.

Two Group 31 batteries supply power for engine starting and chassis electrical systems. The battery is designed to start large diesel engines and rapidly recharge after ignition.

### Battery Charging

The batteries used to supply domestic 12 VDC power are charged through the alternator when the coach is running and by the inverter/charger when the coach has a 120 VAC power source on line. The power in these batteries is depleted when using battery power for domestic use. The chassis battery is charged through the alternator when the engine is running, otherwise through the echo charger mounted in the chassis service bay, once the house batteries' voltage is 13.0 VDC or higher.

## Digital Echo-Charge Battery Charger

The Xantrex Digital echo-charge (**Figure 3.11**), a separate unit from the inverter/charger, monitors the voltage of the domestic and chassis batteries and charges the chassis batteries up to a 15-amp charge rate, depending on their charge level. For charging, the Digital echo-charge draws power from the house batteries while they are at a terminal charge of at least 13.0 volts.

The Digital echo-charge is installed across the battery-boost solenoid, typically mounted in a lower equipment bay. The red wire with a 20-amp inline fuse is connected to the domestic-battery side of the battery-boost solenoid. The red and yellow wire with a 20-amp inline fuse is connected to the chassis-battery side of the battery-boost solenoid. The black wire is connected to ground. The inline fuses protect the Digital echo-charge from damage, and they rarely require replacement.

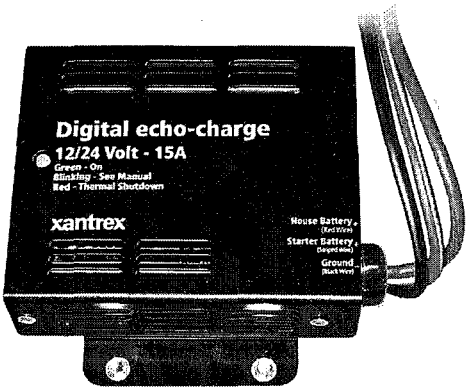



**Figure 3.11**
**Digital echo-charge module**

When the Digital echo-charge is operating properly, its LED glows solid green. For other LED conditions, see **Table 3.3**.

**Table 3.3 — Troubleshooting the Digital Echo-Charge**

| Condition | What to Check |
|---|---|
| LED is solid green. | Normal operation. |
| LED is red. Thermal shutdown. | 1 Check to see that the Digital echo-charge has sufficient air flow and ventilation around it.<br>2 Check the battery connections. |
| Starter battery is not charging. | 1 Check the difference in voltage between the house battery and the starter battery. If the difference is greater than 2 volts, the Digital echo-charge will reduce the charge current. If the difference is greater than 10 volts, the Digital echo-charge will shut off and the green LED will blink.<br>2 Check the connections to the domestic and chassis batteries. Check the fuses. Check the ground connection. |
| LED is off. | Check fuse in the red wire. Check the ground connection. |
| LED is flashing green. | 1 House battery voltage is below 13.0 VDC or is above 17 VDC.<br>2 The difference between the house battery and the starter battery is greater than 10 VDC. |

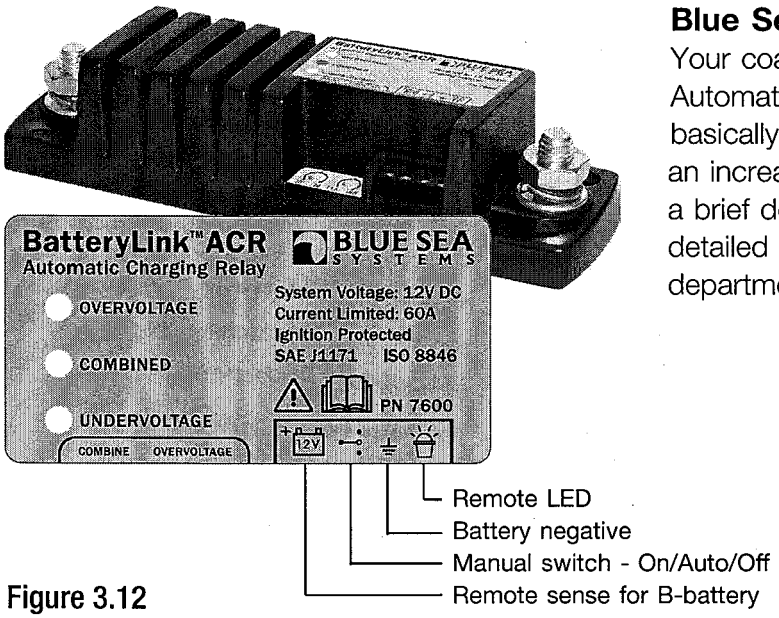



Figure 3.12
Digital echo-charge module

## Blue Sea 'ACR' Battery Charger

Your coach may be equipped with the ACR, or Automatic Charge Relay (**Figure 3.12**). It works basically the same as the Xantrex unit except with an increased charging rate of 60 amps. Following is a brief description of the basic operation. For more detailed information, contact the Country Coach service department.

**Indicator Lights:**

**UNDERVOLTAGE** (amber) indicates:

- There is no charging source present.
- The voltage level of the sensed battery is less than the combined value.
- There is a charging source on one battery and the other battery is less than 4 volts.

The **Undervoltage** indicator is normally on when the batteries are being discharged, and the battery banks are disconnected in approximately one minute.

**COMBINED** (green) indicates: the voltage on terminal A (normally connected to the house battery bank) has remained high enough for approximately one minute for the relay to close, connecting the battery banks together.

**OVERVOLTAGE** (red) indicates: the voltage has exceeded the **Overvoltage** setting, and after a few seconds delay, the green **Combined** indicator goes out, and the battery banks are disconnected.

**Connections:**

**Remote LED indicator:** enables installation of a remote LED to let you know when the battery banks are connected. (Not installed by Country Coach.)

**Battery negative:** connected to chassis frame for common battery ground.

**Manual On/Auto/Off switch**: enables manual connect/disconnect of battery banks by overriding ACR's voltage-sensing circuit. (Not installed by Country Coach.)

**Remote sense for battery B:** connection for the chassis battery sensing circuit, via the B terminal on the ACR.

**! NOTICE**

**The ACR unit has two potentiometers, one for adjusting Combined voltage and one for the Overvoltage adjustment. Country Coach recommends that before attempting to readjust the factory settings, you contact the Country Coach Service Department.**

## Battery Service Tips

- Periodic water level checks are recommended, particularly under the following conditions:
  - High battery compartment temperatures due to hot weather
  - High engine temperatures
  - Frequent highway driving with high factory voltage regulator settings
- Have your battery periodically checked by a qualified service center and make periodic visual inspections for defective cables, loose connections, corrosion, loose hold downs, or loose terminal posts. Tighten any loose connections.
- Keep terminal posts free from corrosion or rust. Use a wire brush to clean the posts and coat them with a corrosive treatment or di-electric grease. To remove cable terminals for cleaning, always remove the ground wire first and connect it last.
- Clean the battery with a wet cloth of ammonia or baking soda and water.
- If you notice unusual "flare-up" in your headlights when speeding the engine up from idle, or your engine cranking speed seems to be slower than usual, have the chassis electrical system checked by a qualified service facility.

## Battery-Boost Switch

The coach electrical system features a boost circuit that, when activated, unites the domestic and chassis batteries. The battery-boost switch, one of the driver's controls, activates the boost circuit. Applying the switch is useful in the following situations:

### Low Chassis Battery for Starting the Engine

In case the chassis batteries are too undercharged to start the engine, the battery-boost switch can allow the domestic batteries to assist in starting the engine. For best results, press and hold the **boost** switch for about thirty seconds before cranking the engine. The more severely depleted the chassis batteries are, the longer you should wait to crank; 2-3 minutes is not too long in a worst-case cold weather scenario. By waiting for the banks to equalize voltages, you will minimize the risk of tripping a domestic circuit breaker.

### Low Domestic Battery for Starting the Generator

In case the domestic batteries are too undercharged to start the generator, the battery-boost switch can allow the chassis batteries to assist in starting the generator.

### Chassis and Domestic Batteries Both Too Low

After you use the boost switch to start the generator, the inverter/charger starts charging the domestic batteries. On single inverter coaches, the domestic battery bank receives a bulk charge of between 75-150 amps.

**However, the chassis batteries receive only about 10-15 amps through the Xantrex echo-charge unit, a normally acceptable rate of charge. To charge the chassis batteries at a faster rate without running the coach engine, keep the battery-boost switch engaged by gently wedging a small object under it. This enables the inverter to continue charging both battery banks at the same rate simultaneously.**

## Fuses

Your coach is equipped with two types of low-voltage replaceable fuses: glass-type in-line fuses and blade fuses. In-line fuses, usually the glass-type, are normally be found in conjunction with individual automotive type components. They protect the coach's electrical wiring and equipment. Both types of fuses are designed to open the corresponding electrical circuit if an electrical overload occurs. Fuse locations vary per coach because of the many options available.
However, most fuse locations are documented on the schematics that are included in the Appendix of the DynoMax chassis manual.

The coach has two fuse panels, the domestic (house) fuse panel in the galley area on the driver side, and the ignition and chassis fuse panels in the steering bay, the first bay on the driver's side. The domestic fuse panel contains fuses for the domestic needs of the coach, such as the interior lights, air conditioning, and power for the slide-room drive motors.

Fuses for the Smart Wheel, ignition, wipers, headlights, horn, and so on, are on the ignition and chassis fuse panels in the steering bay. From the fuse panels, branch circuits are routed to domestic 12 VDC appliances and features. A sticker identifying the purpose of each fuse is placed on the inside of the door of each fuse box.

### Replacing Fuses

If a fault occurs in any circuit, the respective breaker or fuse disconnects power to that circuit. If any lights, accessories, or other electronic controls become inoperable, inspect the appropriate fuse and replace it if necessary.

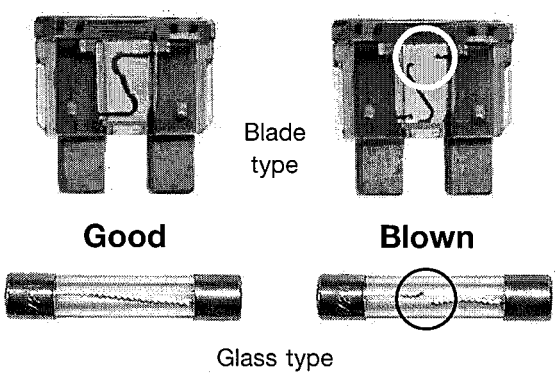



Figure 3.13
Fuse types

**! CAUTION**

**Never replace a fuse with one of a higher rating (larger number) or with material other than a fuse. Serious damage or a fire could result.**

**To replace a blown panel fuse:**

1 Determine which fuse box may contain the faulty fuse by using the fuse panel identification stickers on the inside door of the fuse box.

2 Turn off the coach's ignition and disconnect the house and chassis power at the main circuit panel in the service bay.

3 Open the fuse box door.

4 Remove the suspected fuse with fuse puller, available at most automotive parts supply stores. If the fuse looks like the "blown" image in **Figure 3.13**, page 3.22, replace it with a new fuse of the same rating. If it still looks good, replace the original fuse in its slot and contact a service center to inspect the coach's electrical system.

5 If the new fuse blows, an electrical system problem may exist. Schedule your coach to have its electrical system inspected by a qualified service center.

## Intellitec System Fuses

Separate fuses for each circuit are conveniently located at the fuse modules behind a panel in the wardrobe. The absence of a green light beneath a connection and its associated fuse (when the switch indicates that the circuit is on) indicates a fuse has blown. This makes it easy to track down and repair the faulty circuit. A handy fuse puller is included for this purpose. The entire system is protected by a series of circuit breakers, located in the battery bay. **Figure 3.14** shows an example of a typical module and its fuse label.

For specific switch and module locations, refer to the Hook-up - 12 Volt schematics in the schematics envelope, located in the Coach Information Kit.

Replacing an in-line fuse is not as simple as replacing the fuses in the fuse panels. The many options available on each coach make it difficult for Country Coach to consistently place in-line fuses in the same locations. Therefore, naming exact locations on the schematics list or in this manual is very difficult.

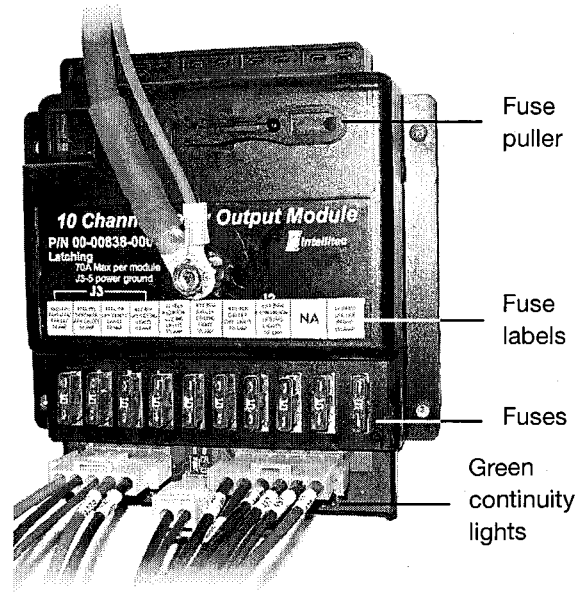



**Figure 3.14**
**Intellitec system fuse module (typical)**

**! NOTICE**

**Because electrical troubleshooting requires extensive panel removal, Country Coach recommends that you schedule your coach to have its electrical system inspected if you suspect problems with in-line fuses.**

## Towing Connector

A towing connector is included with the coach to provide a quick method of connecting the turn signals, taillights, brake lights, and backup lights of a towed vehicle or trailer. The female receptacle for the plug has already been hard-wired to the coach 12 VDC chassis electrical system. The male plug (**Figure 3.15**, page 3.24) is included in the coach parts package and must be connected to the tow vehicle or trailer wiring.

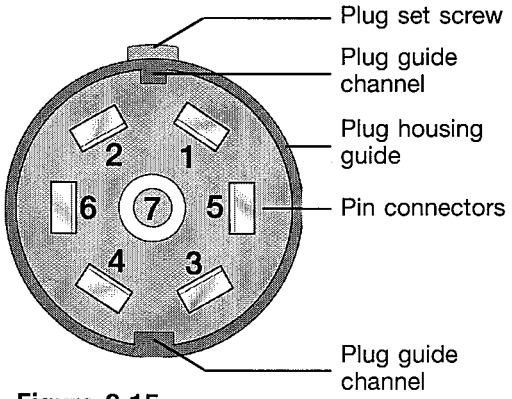



**Figure 3.15**
**Towing connector male plug**

To make these connections, locate the male plug and loosen the set screw at the top of the plug housing (do not remove completely). This allows the plug to slide out of the housing. Guides on the perimeter of the connector only permit replacing the piece in the same configuration. Seven wire connectors are provided for the tow vehicle's various light functions.

Thread the vehicle's light function cable through the rear of the plug housing and perform the needed connections. Replace the plug in the housing, tighten the set screw, pull the slack wire from the housing, and tighten the wire clamp at the back of the housing.

### Male Plug Connections

**Connector function:**

1 Green — Taillight ground

2 Yellow — Brake lights

3 Brown — Taillights

4 Black* — Charge

5 Brown — Left turn signal

6 Red — Right turn signal

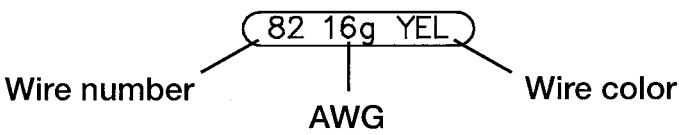
7 Blue — Backup lights

*** indicates connections that are not generally applicable. They are NOT wired in the female receptacle on the coach. If you plan to tow different trailers at different times, separate male plugs can be wired to each tow vehicle and attached to the female receptacle when needed.**

## 12 VDC and 120 VAC Wire Labeling

Each wire in the coach is labeled with a number and gauge. It is also specified by a specific color. The information on the wires and the electrical schematics (provided in the Coach Information Kit) helps you identify each wire, its specifications, and its purpose. The following graphic explains the symbols used on electrical schematics to identify wires.

The 12 VDC wire list details every wire in the coach. This list, used in conjunction with the electrical schematics, can help you locate and define all fuses, breakers, electrical equipment, switches, and possibly, the source of electrical problems.



# Plumbing Systems



# PLUMBING SYSTEMS

**Note:** The letters **FE** refer to information unique to the Inspire 360 **Founder's Edition**.

## Fresh Water System

Your coach is equipped with a fresh water system that can support independent use for several days. You can also connect the coach to an external water source (**Figure 4.1**).

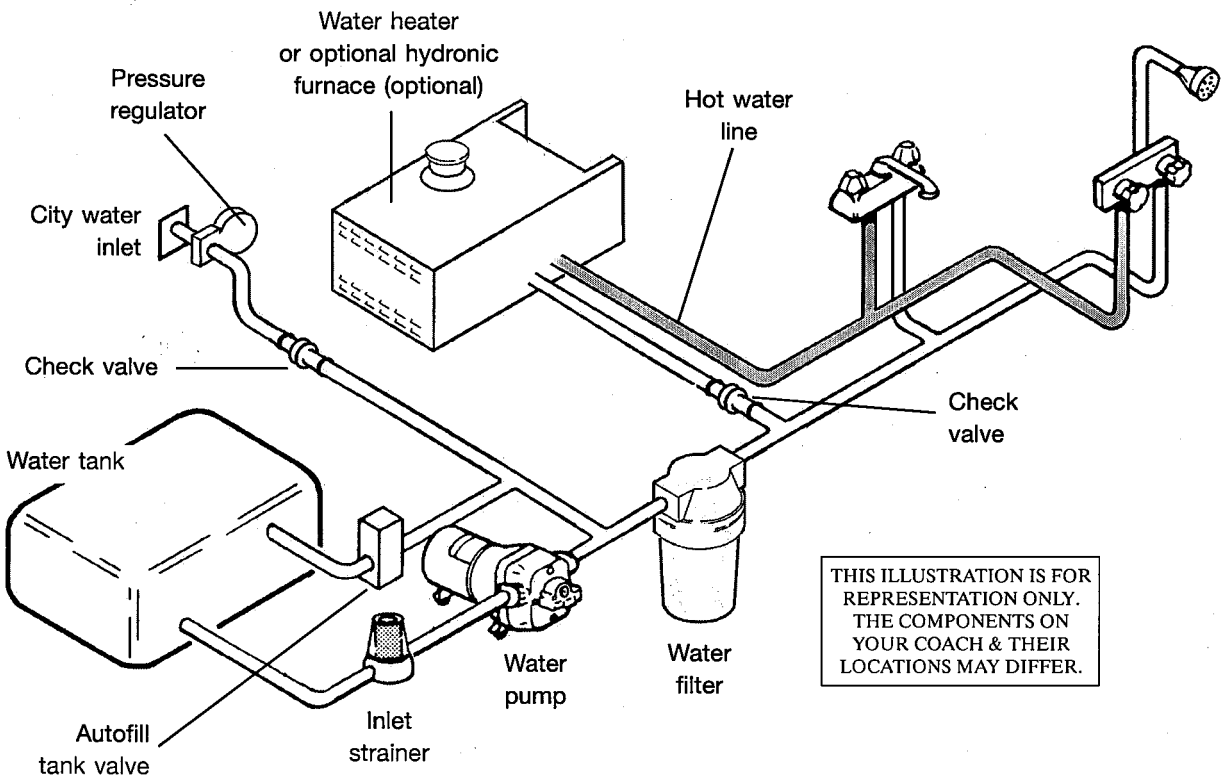
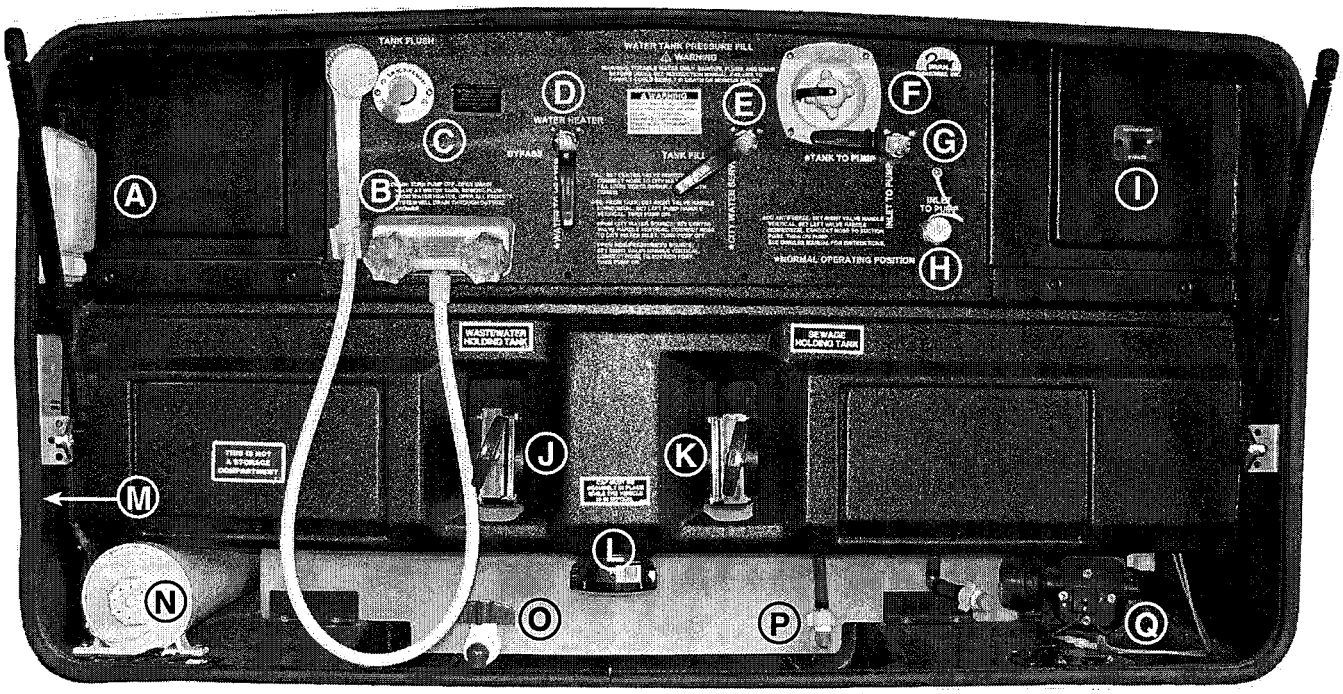



**Figure 4.1**
**Fresh water system**

### Water Storage and Delivery System

The fresh-water storage tank is located behind the driver-side plumbing bay (**Figure 4.2**) and extends to the water tank bay on the opposite side of the coach. Water is drawn from the tank when the coach is not connected to a city water source. To fill this tank, locate the fresh-water fill port at the top of driver-side plumbing bay. City water pressure is sufficient to fill the tank. See **Sanitizing the Water System** for instructions on filling and using the fresh-water system.




**A** Compartment light
**B** Outside shower/service faucet
**C** Black-water tank flush inlet
**D** Water heater by-pass selector valve
**E** Tank fill/city water selector valve
**F** City water inlet & water pressure regulator (behind)
**G** Tank to pump/inlet to pump selector valve
**H** Antifreeze inlet
**I** Water pump bypass switch (LP fitting access - Inspire 360 FE)
**J** Gray-water tank drain handle
**K** Black-water tank drain handle
**L** Main drain/termination fitting
**M** Exterior cable and phone jacks
**N** Sewage hose storage
**O** Low point water drain
**P** Fresh water feed line
**Q** Water pump

**Figure 4.2**
**Plumbing service compartment (typical)**

## Plumbing Bay

The plumbing bay is on the driver's side in the last compartment before the rear wheels (**Figure 4.2**, page 4.2).

## Water Service Operation

The water service entrance manifold consists of three selector valves and a water pressure regulator. Various water transfer functions can be performed, depending on the position of the following valve handles:

- **Tank-to-pump/inlet-to-pump selector valve (G) is used when winterizing (normal handle position is up for tank to pump).**
- **Tank-fill/city-water serve selector valve (E) is used to fill your water tank (normal handle position is down for city water service).**
- **Water-heater-bypass/water-to-heater selector valve (D) is used when winterizing (normal handle position is down for water to heater).**

When the tank is full, an overflow vent diverts the excess water out under the coach. The water pump switch, located in the monitor panel, must be turned on to draw water from the tank. The water pump works with a pressure-sensitive solenoid to maintain 30 to 40 psi in the domestic plumbing system.

Access to the fresh-water storage tank and a majority of the related delivery components is through removable panels in the plumbing bay.

### City Water Connections

Connect a flexible hose with 3/4" fitting to the city water inlet on the plumbing bay panel and to a water service connection (faucet). Turn on the city water to receive pressurized water. Turn off the onboard water pump when connected to the city water service. The flexible hose used to supply water to your motorcoach water system or to fill your fresh-water tank should be drinking water safe and made with materials approved by the Food and Drug Administration (FDA). For detailed instructions, refer to the following section on using city water.

**! CAUTION**

**Excessive pressure from water supply systems in some parks, especially in mountainous regions, could damage your plumbing system. A water pressure regulator has been installed to protect your system against high pressure. It is factory-set to 40 to 50 psi and is nonadjustable.**

**To use city water:**

1 Turn off the water pump and the campground water supply valve.

2 Connect the city water hose to the 3/4" **city water** hose connection at the fill location found in the plumbing bay.

3 Ensure that the tank fill/city water serve selector valve handle is vertical (in the down position).

4 Turn on the campground supply valve. Your city water system is ready for use. Remember to shut off the campground supply valve and disconnect the hose before moving your motorcoach.

**To fill the fresh-water tank:**

1 Turn off the water pump and the water supply valve (faucet).

2 Wash the area around the connection.

3 Connect the city water hose to the 3/4" **city water** hose connection at the fill location in the plumbing bay.

4 Ensure that the center tank-fill selector valve handle is horizontal (in the UP position).

5 Turn on the water supply valve. Monitor the water level in the tank by using the gauge on the monitor panel inside the coach. When the tank is full, water spills from the tank vents.

6 Shut off the supply valve, return the center tank fill selector valve to the down (vertical) position, and disconnect the hose. Remember to shut off the campground supply valve and disconnect the hose before moving your coach.

Whenever possible, cycle fresh water through your fresh-water tank and start each trip with a fresh tank.

**To use tank water:**

1 Ensure that the water tank has an adequate supply of fresh, potable water.

2 Set the right handle (horizontal) to **Tank-to-Pump** and the left handle (vertical) to **Water-to-Heater.**

3 Turn on the water pump. Your fresh-water system is ready for use.

**To use water from a container:**

1 Set the right handle (vertical) to **Inlet-to-Pump.**

2 Place an approved water hose into a clean potable water container and use the water pump to pump the water from the container into the system.

**To purge air from the water system:**

1 Turn on all plumbing fixtures.

2 Turn on the hot water at the galley sink until water flows continuously.

**! CAUTION**

**If water doesn't fully cover the heating unit, it may burn out the element, which would void your appliance warranty.**

## Draining the Fresh Water System

Water system drains are located at or below the floor of the motorcoach so that water lines can be drained of water for sanitizing or winterizing. The water heater has a separate built-in drain plug that can be removed (see manufacturer's instructions).

**To drain the fresh water system:**

1 Level the motorcoach side-to-side and front-to-rear (see the **Controls and Panels** chapter for leveling directions).

2 Turn off the water pump and the water heater.

3 Open all fixture valves inside the coach and the outside faucet.

4 Open the low-point drain.

5 Open the water tank drain valve.

6 Remove the drain plug in the water heater.

7 Operate the water pump for approximately 30 seconds to remove water between the tank and pump, then shut it off.

8 Drain the (optional) washing machine and refrigerator icemaker according to manufacturer's instructions.

9 Remove the water filter in the water tank bay on the passenger side and drain it.

10 Check all interior plumbing fixtures, including the toilet flush valve, for trapped water.

11 Remove any water remaining in the system by attaching a blowout plug adapter to the fill connection and blowing compressed air through the water lines. Do **not** exceed 45 psi.

12 Turn off all drain valves and plumbing fixtures when the system is completely drained.

**To reactivate a previously drained fresh water system:**

1 Sanitize the system by following the directions in the **Sanitizing the Fresh Water System** section in this chapter.

2 Reinstall the water filter.

3 Reconnect the icemaker and washer/dryer lines, if applicable.

4 Fill the water tank by following the directions in **To fill the fresh-water tank** procedure in this chapter.

5 Slowly open each valve (faucet) in the coach until water flows continuously, then turn them off.

6 Turn on the water pump. Your water system is ready for use.

After the water tank has been filled, the 12 VDC electric water pump pressurizes water to all the plumbing fixtures. After you turn on the pump switch in the bathroom at time of delivery or refilling a drained system, be sure to purge all air from the lines and water heater by opening all plumbing fixtures.

**Note:** Be sure to purge the system of trapped air before lighting the water heater.

From then on, operation of the water pump is completely automatic and self-priming on demand when any fixture is turned on.

## Water Pump

Engaging the coach's water pump is not necessary when connected to a pressurized city water service. The water pump switch should be off. This conserves the fresh water held in the storage tank. The fresh-water storage level can be replenished through the city water connection. By turning on the fresh-water fill valve, city water is diverted to fill the fresh-water holding tank. If you do not want to completely fill the tank, you can stop filling at any level by turning off the fresh-water fill valve.

The water pump works with a pressure-sensitive solenoid to maintain 30 to 40 psi in the domestic plumbing system.

**To operate the pump:**

1. **Fill the fresh-water tank and open all faucets while the pump switch is off.**
2. **Turn the pump switch on and allow water to flow until the water is free of excess air.**
3. **Close all faucets and valves.**

The pump turns itself off automatically when it senses that all valves are shut and the water pressure has reached the preset level in the lines. See the water pump owner's manual in the Coach Information Kit for more detailed operating instructions.

## Exterior Service Faucet

To provide access to the coach's water supply for exterior use, a service faucet is included in the plumbing bay. To prevent possible leakage or water loss, keep the water valves closed when the outlet is not in use.

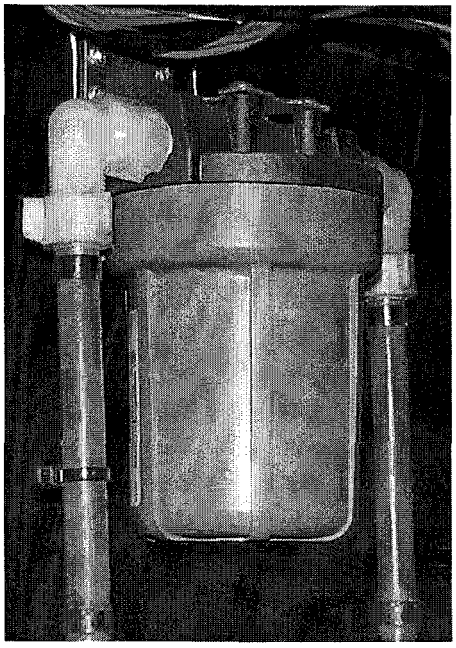


**Figure 4.3**
**Fresh water filter (activated-charcoal system)**

## Water Filter

**Activated-charcoal filtration system:**

Your coach is equipped with a one-micron carbon-block cartridge in-line water filter (**Figure 4.3**). It filters all incoming fresh water for sinks and the refrigerator. The filter is typically located near the rear wall of the passenger-side water tank bay, and provides access when cartridge replacement is required. Since access is rarely required to this bay, except for service personnel, it has no latch, but can be opened by removing the two bracket screws beneath the lip of the bay door.

Water is circulated through activated charcoal and, through the process of absorption, it removes tastes, odors, and organic contaminants. This process is recommended by the U.S. Government. The unit is capable of treating approximately 10,000 gallons of water, and offers an effective flow rate of 2.5 gallons per minute, enough to meet the needs of the entire water system.

Suggested replacement interval of the filter cartridge is one year, or sooner, if needed. Toward the end of the activated charcoal's useful filtration life, you begin noticing a diminishing flow rate and water quality.

### 3M filtration system:

Your coach may be equipped with a state-of-the-art 3M filtration system (**Figure 4.4**) found in the same location as the previous filter. The replaceable cartridge circulates water at a rate of 2.5 gallons per minute and is capable of treating approximately 7,500 gallons of water.

In addition to built-in bacteria growth inhibition, the 3M WV-B2 system:

- **Reduces 95% of chlorine taste and odor**
- **Reduces 99.99% of harmful bacteria**
- **Reduces 99.99% of mold spores, cysts, and algae**
- **Reduces sand, silt, dirt, rust, and sediment down to 0.2 micron**

For information concerning servicing and replacement part, consult the filter owner's manual located in your Coach Information Kit.


**Figure 4.4**
**3M filtration system (typical)**

## Water Heater

The water heater is an LP gas-fired appliance. Before lighting the LP-gas water heater, purge the air out of the water heater tank by turning on the hot water faucet at the galley sink until water flows continuously. The water heater, typically located in a lower pantry cabinet, is accessible only when the living room slide-out is extended. However, access to the main operational components of the water heater is through the exterior access panel on the driver side of the coach. The unit uses electric spark ignition, that requires no matches to light.

To operate, simply turn on the water heater switch found on the main monitor control panel in the galley area of the coach. If it fails to operate properly, it may be in a lockout condition due to high water temperature. Wait until the water cools, reset by placing the switch in the **off** position for at least 30 seconds, and return it to the **on** position.

## Freeze Prevention

Every Country Coach motorcoach is equipped with a means to prevent the fresh-water storage tank and the exterior portion of the plumbing delivery system from freezing. This coach uses heat ducted from the vanity-area heater to warm the plumbing bay, containing the holding tanks. Coaches equipped with the optional hydronic heating use the system to warm the plumbing bay. For additional information on the coach hydronic system, refer to Chapter 5, as well as Aqua-Hot manuals in your Coach Information Kit.

**! NOTICE**

**If the coach is to be stored for an extended time in freezing climates, take steps to prevent damaging the fresh water system (see the "Winterizing Procedure" section in Chapter 5). Freeze damage is not covered by the warranty.**

### Sanitizing the Fresh Water System

To ensure complete disinfection of the onboard water storage system, perform the following procedure at the time of first delivery, after long periods of non-use, and after any suspected contamination. There are various commercial solutions approved for RV use that are available for sanitizing the system. You may also use household bleach solutions as described in the following procedure.

### To sanitize a fresh water system (new or used):

1 Ensure that the water system is drained (used system), the filter is removed, and the filter housing is installed. This step ensures that chlorine residue is not left in the filter elements, which could produce a chlorine odor in your water.

2 Prepare a 50 ppm chlorine solution, using one gallon of water for each 1/4 cup of household chlorine bleach. When the tank is empty, add one gallon of this solution into the tank for each 15 gallons of tank capacity.

**Note:** You may pour this solution into the water tank through the city water inlet connection.

Remove the cap, add the solution and replace the cap. In some coach models, the solution needs to be pumped into the tank through the water inlet-yo-pump.

3 Continue filling the tank with fresh water. Open the faucets to release air. Turn on the pump until water flows and a distinct odor of chlorine can be detected in the discharged water. Turn off the pump.

4 Allow water to stand for at least four hours.

5 Drain the entire system, including the water heater.

6 Flush the entire system with potable fresh water and drain again. The water heater and all plumbing lines may be flushed using the outside water connection (see directions in the **To Drain the Fresh Water System** section).

7 To remove excessive chlorine taste or odor that may remain, prepare a solution of one quart vinegar to five gallons of water and allow the solution to agitate in the tank by vehicle motion for several days, if possible.

8 Drain the tank and flush again with potable fresh water.

## Wastewater System

The major components of the wastewater management system include the (plastic) Acrylonitrile Butadiene Styrene (ABS) drain/vent plumbing, two waste water holding tanks (gray- and black-water), and a double knife-valve assembly for draining the system.

**! CAUTION**

**The dumping of toilet waste (raw sewage) into other than approved facilities or sewer systems is strictly prohibited.**

While staying in an RV park or campground that has on-site sewer connections, keep the dump valve on the solid waste tank closed and add enough water into the holding tank to prevent the solids from building up in the tank. When using the water-saver toilet, raise the water in the bowl to a preferred level to ensure an adequate water supply to move the solids from the toilet to the holding tank and to avoid buildup under the toilet.

**! NOTICE**

**Do NOT leave Aqua-Kem or any other deodorant treatment chemicals standing in the toilet bowl. Continued exposure to these chemicals can damage the soft rubber seal of the flapper valve.**

**! NOTICE**

**Avoid putting facial tissue, paper towels, or solid materials into the tanks; these materials do not dissolve or break down the way toilet tissue does and can present problems when emptying the tanks.**

### Thetford Aqua-Magic Toilet

The toilet in your coach performs the same tasks as the one in your own home. However, this unit is designed to use a minimum amount of water to perform these functions, since fresh water conservation is of prime concern when traveling.

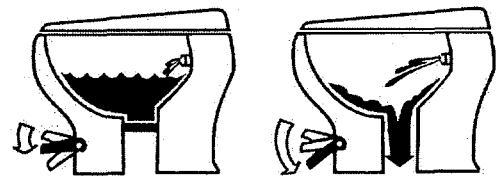



Figure 4.5
Aqua-Magic toilet operation

**To add water to the bowl:**

1 Push the foot pedal half way down (on the left in **Figure 4.5**).

2 Watch the level and release the pedal when it reaches the preferred level.

**To flush toilet:**

Push the foot pedal all the way down (on the right in **Figure 4.5**) until the contents of the bowl are expelled. The water refills to the pre-set level.

**Note:** Holding flush lever down longer than necessary results in excessive water usage.

### Holding Tanks

Both wastewater tanks are constructed of an opaque polyethylene plastic material that limits the introduction of light (thereby inhibiting bacterial growth) and are differentiated by the respective functions they serve. The gray-water tank receives water from the vanity and kitchen sinks, tub/shower, and water from the optional clothes washer.

The black-water tank receives waste from the toilet only. The holding tanks are located in the coach sub-flooring. Each is subjected to a pressure test prior to installation. Should the integrity of the tanks be compromised, they **can** be repaired by heating the break and melting or welding a polyethylene material onto it. But the best solution would be to have the tank replaced.

### Draining and Venting

The drain system is constructed from ABS plastic and provides a passage for wastewater drainage, venting, and pressure equalization of the plumbing fixtures and holding tanks. The wastewater dump-valve assembly is also constructed from ABS. All ABS piping and fittings have been permanently fastened with an approved adhesive and securely mounted to the sidewall interior and cabinetry in accordance with code specifications. Replaceable automatic vents facilitate better drainage. Rooftop vents and clean out plugs allow system access for servicing. The fittings at the holding tanks have been treated with a semi-flexible sealant to facilitate disconnection.

### Waste Dumping and Chemical Treatment

Your holding tanks are designed to fill, and then be dumped. If, while parked, you leave your black- and gray-water tank valves open, liquids drain out but solids stay in the tanks. As time passes, these solids continue to build until you have one solid mass of sewage.

Both tanks terminate in a double knife-valve assembly located in the plumbing bay. This assembly allows both tanks to be dumped with one hookup. Leaving your gray-water tank valve open could allow unpleasant sewer gases to come up through your shower and sinks. To avoid this, we suggest that you leave both tanks closed until dumping. As a rule, avoid dumping the black-water tank when it is less than ½ full. If you end a trip with a ¼-full black-water tank, add fresh water until it is ½ full. The fast moving water carries solids out of the tank to the drain. Then open the gray-water tank valve. This aids the rinsing of your sewer hose.

Typically, the gray-water tank tends to fill faster than the black. In these cases, you may elect to leave your hose connected to the sewer, with the gray-water tank valve open. In any case, you should still close the gray-water tank valve when the black-water tank approaches ½ full. When the gray-water tank fills, dump both tanks.

**! NOTICE**

**Before storing your coach (even for a week) always dump both the black and gray holding tanks. Dumping the gray-water tank is easily overlooked.**

It is a good practice to add your favorite tank conditioner to both black and gray-water tanks. Do this after every tank flushing and before storing your coach. This establishes a fresh start for odor-free traveling.

Whenever possible, cycle fresh water through your holding tanks and start each trip with a fresh tank. Both tanks terminate in a double knife-valve assembly located in the plumbing bay. This assembly allows both tanks to be dumped with one hookup.

**To dump the holding tanks:**

1 Remove the sewer hose from the cargo holding area, connecting the fitting end to the terminal of the knife-valve assembly. Insert the other end in the dump station opening.

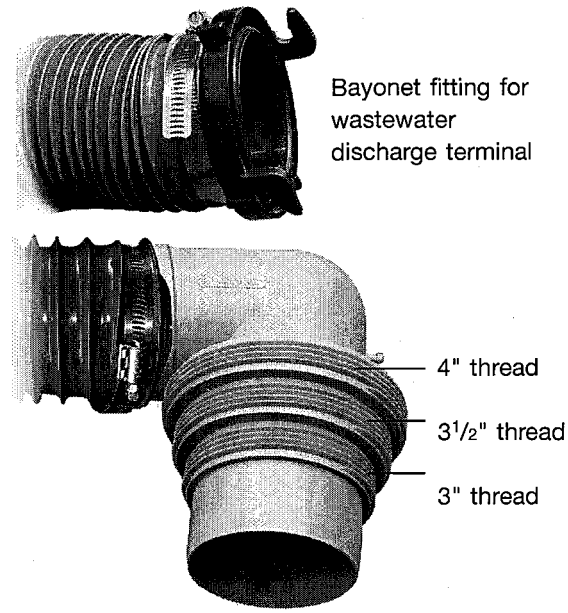



Figure 4.6
Sewer hose components

**! NOTICE**

**If your coach is factory-delivered, it comes with a 3" sewer hose with a 4-in-1 sewer hose adapter elbow for the dump point and a bayonet fitting to secure the hose to the dump valve in the plumbing bay (Figure 4.6). The elbow is designed to create an odor-tight seal at the dump station or RV campground site when used properly.**

**! IMPORTANT**

**Some states and local jurisdictions require an air-tight connection between your coach and the ground sewage system. Many campgrounds maintain strict rules and guidelines regarding waste dumping procedures. Regardless, it's a courtesy to you and your camping neighbors when you keep odors confined where they belong.**

2 Empty the black-water tank first (the most rearward of the two) by opening the black-tank knife valve. The drain is gravity-driven, so allow sufficient time for the tank to drain.

If a city water source is available, you may want to flush the black-water tank after draining.

a Open the Tank Flush port at the upper left of the plumbing bay.

b Attach the male end of a garden hose to the fitting (use a different hose than is used for city water hookup), and turn on the city water valve, rinsing out the black-water tank through the sewer hose.

c When finished, close the black-tank knife valve, remove the water hose from the tank flush fitting, and reinstall the plastic cap.

3 Open the gray-tank valve. This is the forward of the two. This drains the gray-water tank.

- To flush the gray-water tank after draining, turn on faucets inside the coach and allow the water to flow into and out of the gray-water tank through the sewer hose. Shut the gray-tank valve.

4 Recharge the black-water tank. A chemical deodorant such as Aqua-Kem is recommended for use in the black-water tank. While depressing the toilet pedal, pour in one 8 oz. bottle of Aqua-Kem and add about one gallon of water to the tank.

5 Provided there is a city water source available or an adequate supply of fresh water in the storage tank, additional rinsing of the sewer hose may be done at this time.

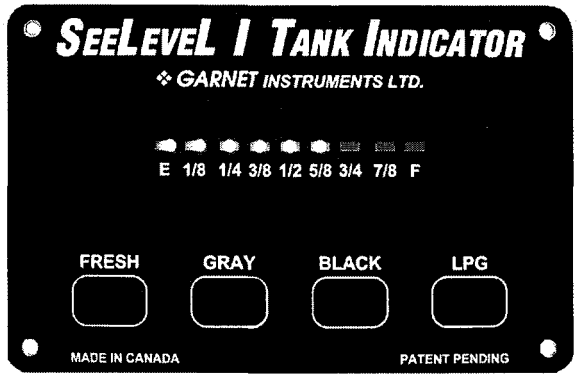



Figure 4.7
Holding tank monitoring panel

## Tank Level Monitor

The SeeLevel I tank monitor panel (**Figure 4.7**) displays the levels in the water and sewer holding tanks and the LP gas tank, showing the levels on a color-coded LED bar graph in 1/8-tank increments, updated every second. In addition, the system can display the operating characteristics of each of the tank sending units.

The display is the only system component that is accessed by the user. All user input to the display is done using the four buttons along the bottom of the display.

### To read the tank level:

- Press the button corresponding to the tank to be checked and release it. The display powers up and shows the level on the bar graph.

  — If the fresh water or LPG tank is being checked, the display shows a row of green LEDs, with each LED indicating 1/8 of the tank. For example, if the tank is 5/8 full, then 5 green LEDs are lit. If the level is down to 1/8 of the tank, then one red and one orange LED is lit, and if the tank is empty then a single red LED is lit.

  — If the wastewater tank is being checked, the display shows the same row of green LEDs with each LED indicating 1/8 of the tank, except that the 7/8 LED is orange and the full LED is be red.

- If no other button is pressed, the display shuts itself off after about 5 seconds.

- If a button is held down, the display rechecks the level once per second and shows the updated level.

- **If another button is pressed before the 5 second time is up for the first button, the display immediately switches to showing the new tank. The 5 second time-out is restarted every time a button is pressed.**
- **By pressing two buttons at once, the diagnostic functions can be accessed. These are described in detail in the manufacturer manual included in the Coach Information Kit.**

## Tank Capacities

The following table is included to help you to plan usage, to know capacity (in gallons), and to schedule dumping of the holding tanks. The level of fluid in each tank can be checked at the monitor panel located above the main coach entrance.

| Tank | Capacity (gallons) |
|---|---|
| Fresh water | 88 |
| Gray water | 69 |
| Black water | 53 |
| LP tank | 32 |
| Fuel tank | 100 |

## LP Gas Delivery System

The LP gas system is a fully-enclosed system designed to contain and deliver LP gas to the various appliances and equipment that are LP-fired. The system begins at the LP gas storage tank that has been securely fastened to the chassis framework. A black flexible hose connects the tank to the LP main. The LP main is constructed of rigid ½" inside-diameter black iron pipe that is mounted securely to the sub-floor framework of the coach. Before installation, this LP main was pressure tested in excess of 80 psi.

Where the LP main passes through the floor, the passageway is completely sealed. To prevent the LP main from becoming electrically energized, it has been grounded to the chassis frame. The remainder of the LP gas delivery system in the interior of the coach is constructed with either or a combination of 1/2-inch black pipe, 3/8-inch inside-diameter copper tubing and 3/8-inch inside-diameter flexible hose. To prevent the LP main from becoming electrically energized, it is grounded to the chassis frame.

**! NOTICE**

**Areas where LP gas tubing is routed should NOT be used for storage.**

**! WARNING**

**The LP gas storage tank must NOT be filled to full capacity. Federal regulations prohibit filling the tank to more than 80% of capacity. The other 20% allows gas expansion within the tank (see "LP Gas Safety Information" section).**

For the LP gas system to work properly, the tank must be purged of air before the initial filling. The tank should have been purged and filled by the motorcoach dealer. If not, it is best to have a qualified LP gas dealer do this.

**! WARNING**

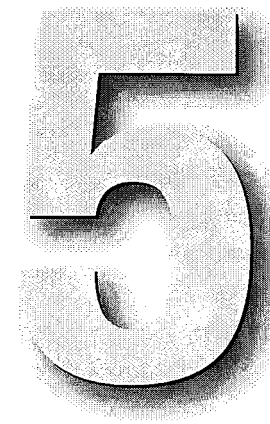
**You are advised NOT to fill the tank yourself.**

For LP system routing information, see "LP Main" and "LP Copper Plumbing" Plumbing Schematics") in this manual. For information and helpful hints about the LP tank and regulator, see the manufacturers' brochures in your Coach Information Kit.

Notes:

# Equipment





# EQUIPMENT

The contents of the various bays may differ between coach floorplans, lengths, or special orders, though there are standard locations for various system components. Therefore, though the following tables are "typical", locations of various systems and components are subject to change without notice, and may not entirely represent a specific coach.

## Exterior Compartments

Although typical for the Inspire, the following compartment designations and contents may vary, depending on the floorplan selected. Tag and non-tag Inspires may have different bay designations and contents.

**Note:** Unless otherwise designated, bay contents are common to both the **Inspire 360** and the **Inspire 360 Founder's Edition (FE)**

The fuel-fill ports are located just behind the front wheels on both sides of the coach.

**Table 1— Driver-side Compartment Contents (typical)**

| Bay Description | Length | Contents |
|---|---|---|
| Generator roll-out (front) | All | • Auxiliary generator<br>• Washer fluid reservoir (on chassis in front of generator)<br>• Hand latch is below the license plate |
| DS-1: Steering | All | • Fuses (chassis and ignition)<br>• Control modules for leveling<br>• Accessory air compressor<br>• Switches for generator roll-out (Inspire 360 FE) and ABS blink code HWH leveling control module |
| DS-2: Electrical | All | • Battery fuse<br>• Generator circuit breakers<br>• House batteries<br>• Circuit breakers for generator and various house systems<br>• Ignition relay circuit breaker<br>• Inverter/charger<br>• Optional **Aqua-Hot hydronic furnace** (Inspire 360 FE) |

**Table 1— Driver-side Compartment Contents (continued)**

| Bay Description | Length | Contents |
|---|---|---|
| DS-3: Storage (pass-through) | 36' | • Drive motor for Power Gear slide-out system<br>• Optional roll-out tray<br>• Phone cable connections<br>• Shore cord line, reel, and transfer switch Surge Guard |
| | 40' & 43' FE | • Drive motor for Power slide-out system<br>• Gear Optional roll-out tray |
| DS-4: LP | All | • LP tank (rear of tank - Inspire 360 FE) |
| DS-5: Storage | 40' | • Shore cord line, reel, and transfer switch<br>• Surge Guard Optional roll-out tray |
| DS-5: Plumbing | 36' | • Faucet<br>• Black tank flush inlet<br>• City water inlet Inlet to pump<br>• Black-and gray-water tank drain systems<br>• Sewage hose storage<br>• Low point water drain<br>• Water pump Water pump bypass switch |
| | 43' FE | • Faucet<br>• Black tank flush inlet<br>• City water inlet Inlet to pump<br>• Black-and gray-water tank drain systems<br>• Main drain/termination fitting<br>• Sewage hose storage<br>• Low point water drain<br>• Water pump bypass switch |
| DS-6: Plumbing | 40' | • Faucet<br>• Black tank flush inlet<br>• City water inlet Inlet to pump<br>• Black-and gray-water tank drain systems<br>• Main drain/termination fitting<br>• Sewage hose storage<br>• Low point water drain<br>• Water pump bypass switch |

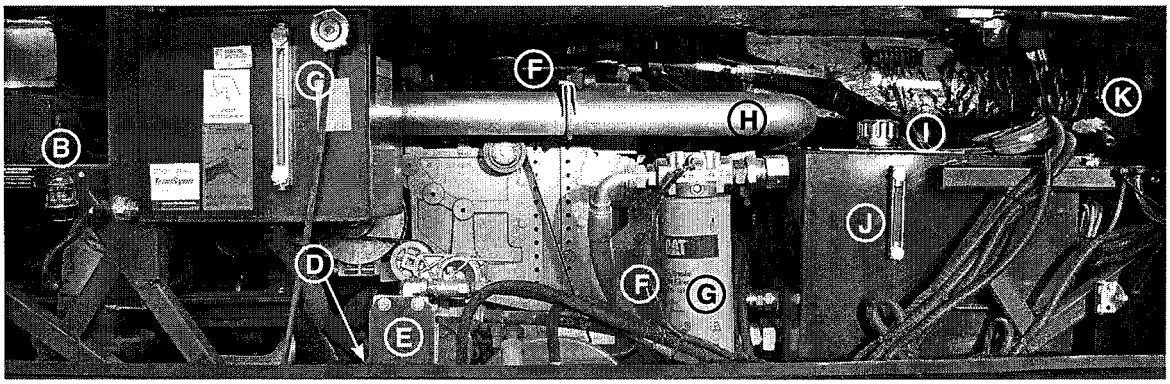
**Table 2— Passenger-side Compartment Contents (typical)**

| Bay Description | Length | Contents |
|---|---|---|
| PS-1: Storage | 36', 40' | • Small storage bay |
| | 43' FE | • Optional Aqua-Hot furnace |

| Bay Description | Length | Contents |
|---|---|---|
| PS-2: Storage (pass-through) | 36', 40' | • Optional roll-out tray<br>• Drive motor for Power Gear slide-out system<br>• Controller panel for optional Aqua-Hot<br>• Phone/cable connections<br>• 120-V outlet |
| | 43' FE | • Optional roll-out tray<br>• Drive motor for Power Gear slide-out system<br>• Phone/cable connections<br>• 120-V outlet |
| PS-3: Hydronic Furnace | 36'' | • Optional Aqua-Hot furnace<br>• Access panel above bay on exterior |
| | 40' | • Optional Aqua-Hot furnace |
| PS-3: LP | 43' FE | • LP tank (front of tank) |
| PS-4: Water Tank | 36' | • Access to fresh water tank and filter. In some coaches, filter located under toilet room sink. |
| PS-4: Storage | 40' | • Optional roll-out tray<br>• Access panel above bay on exterior |
| | 43' FE | • Optional roll-out tray |
| PS-5: Battery | 36' | • Chassis batteries<br>• Chassis circuit breakers<br>• Chassis disconnect switch<br>• Diagnostic reader ports |
| PS-5: Water Tank | 40', 43'FE | • Access to fresh water tank and filter. In some coaches, filter located under toilet room sink. |
| PS-6 | 36' | • Access to DPF filter |
| PS-6: Battery | 40', 43'FE | • Chassis batteries<br>• Chassis circuit breakers<br>• Chassis disconnect switch<br>• Diagnostic reader ports |
| PS-7 | 40', 43'FE | • Access to DPF filter<br>• Fuel primer pump<br>• Chassis disconnect switch<br>• Reader ports<br>• Hydraulic filter bypass switch<br>• Circuit breakers for starter solenoid, grid heater, chassis and ignition fuse box, battery boost<br>• HWH single-cylinder slide-out bedroom extension mechanism for 'D' slide-out room |

## Engine Access

See **Figure 5.1** for the location and description of basic engine compartment components.




**A** Engine air filter housing
**B** Air filter minder
**C** Coolant reservoir fill point and sight glass
**D** Transmission fluid dipstick
**E** Primary fuel filter
**F** Engine oil fill points
**G** Hydraulic fluid filter
**H** Engine oil dipstick
**I** Hydraulic fluid reservoir fill
**J** Hydraulic reservoir sight glass
**K** Power Gear 'C' slide-out room motor

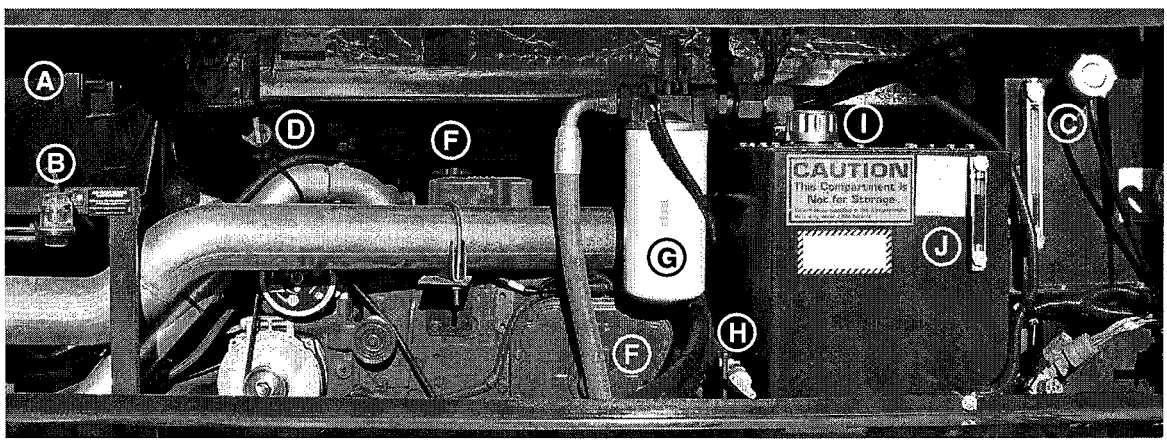



**Figure 5.1**
**CAT C9 (top) and Cummins ISL (bottom) engine access**

## Bedroom Engine Access

The engine compartment can be accessed from inside the coach through a carpeted panel on the raised deck, just aft of the bed (**Figure 5.2**). A cut line is visible in the carpet and you'll find small cross-cuts at the fastener locations, revealing the 6 bolts securing the panel in place. Remove the bolts, and remove the access panel.

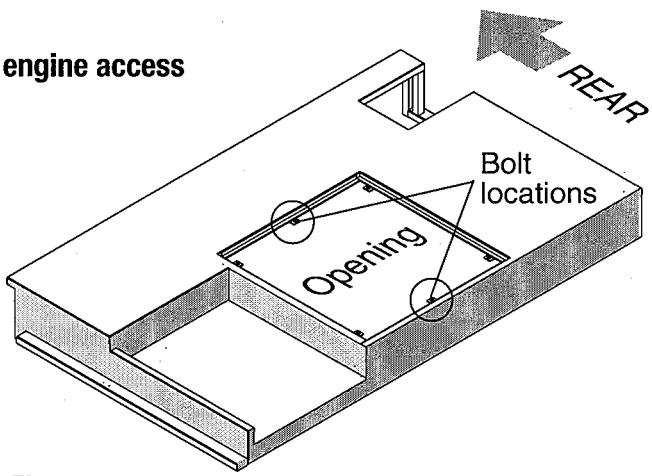



**Figure 5.2**
**Bedroom engine access**

## Domestic (House) Heating System

The Inspire uses two Atwood furnaces to supply heat to the interior of the coach and to the holding tank compartment simultaneously. Controlled by the "zone" functions of the Coleman temperature control system, one heater is located under the cabinetry in the galley area. This provides heat for the forward part of the coach, while the second heater, located behind the paneling in the lower vanity cabinet area, heats not only the aft vanity, bathroom, and bedroom, but also provides heat to the plumbing bay. These appliances are equipped with an ignition device that automatically lights the burner. Do not try to light the burners by hand.

**Note:** Ensure that the valve power switch (accessed from the outer door) is in the on position by following the manufacturer's operating instructions.

Part of the heat from the vanity-area Atwood heater is ducted down to the plumbing bay below to keep the holding tanks from freezing. This function is only be available, however, when the vanity-area heater is activated.

### Aqua-Hot Heating System (option)

For interior heating, select the **diesel** switch on the optional Aqua-Hot panel (**Figure 5.3**) on the bedroom switch panel) and set the Coleman controls to the preferred temperature. The fans automatically turn off when the temperature reaches the proper level. The furnace and fans cycle on and off automatically to maintain set temperature. The following controls perform as described.

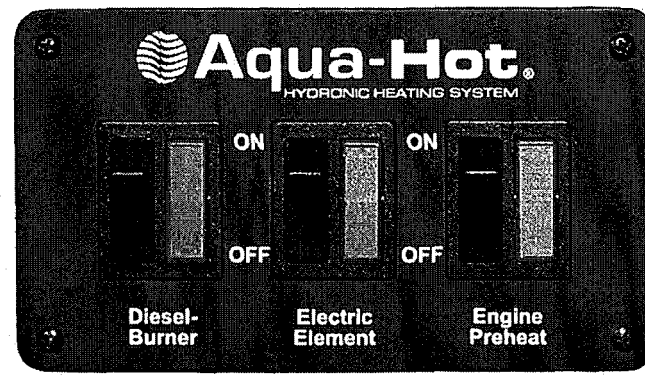



Figure 5.3
Hydro-Hot panel

**Diesel** activates the diesel burner, the main source for heating the boiler fluid that delivers heat to the interior of the coach and for heating domestic hot water.

**Electric** activates the 120 VAC heating element, indicated by a lighted switch. Wired directly into the coach's 120 VAC system, this system is operational whenever AC shore or generator power is available. It requires 1 to 2 hours to reach operating temperature. The electrical heating element should be used only for low-heating demand situations, such as a low hot water demand, or for maintaining a moderate ambient temperature. This prevents the furnace from cycling.

**Engine Preheat** energizes the engine preheat circulation pump, indicated by the lighted switch. This function circulates heated coolant through the engine to aid in starting a cold engine on cold mornings. Turn this switch off when the preheat system is not needed.

**! NOTICE**

**Allow approximately 1 to 2 hours of preheat run time. Using the diesel function can shorten the time required to preheat.**

**! WARNING**

**The Aqua-Hot exhaust is HOT**

- **Do NOT park over dry grassy areas, to avoid risk of a fire from the exhaust.**
- **Do NOT operate the diesel-fired burner in an enclosed building.**

**! CAUTION**

**Do NOT operate the diesel burner or the 120 VAC electric heating element without coolant solution in the system which otherwise can damage the heater.**

The Aqua-Hot system heats the interior of the coach by using two "loops." Loop 1 heats the forward portion of the coach, Loop 2 heats the rear. With the **diesel** switch turned on (the switch lights when the diesel burner is activated), set the preferred temperature on the Coleman temperature unit. (See the **Coleman HVAC System** section in Chapter 2.) Temperature at the discharge registers may be as high as 120 degrees.

**! NOTICE**

**If your heater fails to operate because of a low fluid level in the boiler tank, and you cannot easily find boiler antifreeze, simply top off the boiler with water. Then at a later time, drain off a small amount of fluid and replace it with the correct "boiler" antifreeze.**

**! CAUTION**

**Failure to winterize your heater, when stored in freezing temperatures, results in SERIOUS DAMAGE to the coach's domestic hot water heating system.**

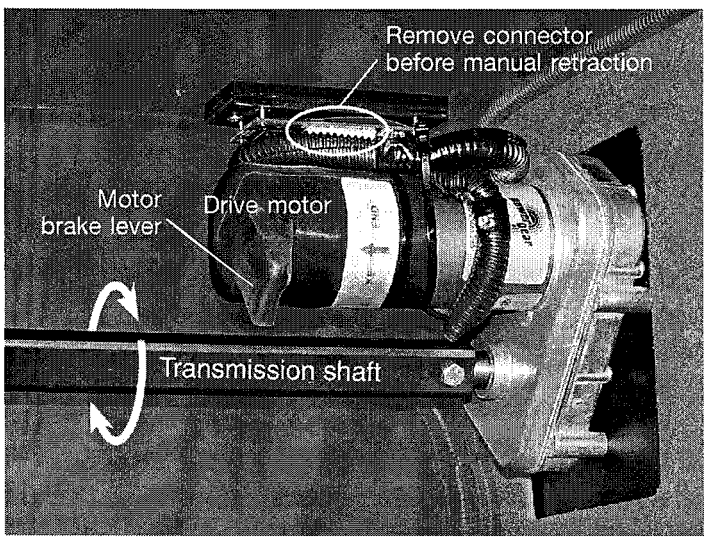



Figure 5.4
Power Gear drive motor (typical)

## Power Gear Slide Room System

The Power Gear slide-out room hardware is equipped with an independent electrical system for each room, consisting of a powerful drive motor located in the passenger-side through bay for the galley slide and in the corresponding driver-side bay for the living room slide-out room (**Figure 5.4**). Using a common transmission shaft and pinion gears, the room is moved along on two sets of racks. This enables smooth and even extension/retraction of the room. The switches for extension/retraction are located on the monitor panel in the galley area.

## Operation

Slide-out rooms do **not** operate in low voltage conditions. Chassis voltage must NOT drop below 12 VDC or the chassis batteries must be recharged by the engine. If domestic voltage drops below 12 VDC, shore power (or the generator) must be activated to operate the slide mechanism. Avoid partial extension or retracting of the slide-out room. Fully extend or retract the slide-out room at each operation of the mechanism.

**To extend the slide-out rooms:**

1 Set the parking brake.

2 Run either the chassis engine or the generator or remain attached to the shore power to ensure ample electrical current is available for extending and retracting the slide-out rooms. The ignition must be on.

3 Level the coach using the HWH leveling system.

4 On the monitor panel across from the refrigerator, select the appropriate slide-out room switch — left to right **Slide Room** switches control slide-out rooms C (PS bedroom), D (DS bedroom), B (PS living room), and A (DS living room), respectively.

> **! NOTICE**
>
> **Work safely: Provide a spotter outside the coach and ensure that everyone and everything is out of the way, inside and outside.**

5 Push and hold a **slide room** switch in the upward position until the room is completely extended. Release the switch if unusual noise or binding occurs. The slide-out room awning extends with the slide-out room. Repeat this step for each slide-out room.

6 Turn off the ignition unless you want to continue running the chassis engine.

The slide-out room topper awning automatically extends with the slide-out room. If you want to provide shade to the slide-out room window, fully extend the awning.

**To fully extend the topper awning:**

1 Locate the awning pole, typically located in the pass-through bay.

2 Use the pole to pull down the central tether of the awning. When the awning is fully down, its support arms extend straight out from the slide-out room wall.

3 Attach the loop at the end of the tether to the awning tether-bracket on the exterior of the slide-out room.

**To retract the slide-out rooms:**

1 Roll up any slide-room awnings by using the awning pole to unhook the tether and to feed the awning back into its enclosure.

2 Remove any buildup of snow, water, or leaves that may have accumulated on the topper awning.

3 Repeat steps 1 through 5 in **To extend the slide-out rooms**, except press and hold the lower portion of the appropriate **Slide Room** switch this time. Maintain pressure on the switch until the room is completely retracted.

**! CAUTION**

**Ensure that everyone remains clear of the outside of the room during retraction. The room moves slowly but deliberately, and if caution is not observed by those in close proximity, personal injury may result.**

For detailed operating instructions, refer to the Power Gear hydraulic slide-out room owner's manual in your Coach Information Kit.

### Emergency Retraction

The following procedures explain how to retract the Power Gear slide-out rooms manually.

**! NOTICE**

**Be certain that all precautions that apply to normal room retraction are observed for manual retraction, as well.**

**To manually retract the forward 'A' and 'B' slide-out rooms:**

1 Access the Power Gear slide-out room motor in the storage bay and release the brake lever on the end of the motor. To free the mechanism, you must switch the lever to the brake release position (counterclockwise, facing the motor). See **Figure 5.4** (page 5.6).

2 Disconnect the red and black power lead wires extending from the motor that terminate in a small white Amp plug connector as indicated in **Figure 5.4.**

3 Locate the Power Gear transmission shaft. Using an open-ended wrench, rotate the shaft until the room is retracted.

4 After the room is fully retracted return to the motor and reapply the brake to keep the room tightly closed.

5 Your coach is now ready for travel to an authorized repair shop.

6 After coach has been repaired, reconnect the black and red leads to the motor to resume normal operation.

**To manually retract the passenger-side bedroom 'C' slide-out room (Inspire 360):**

1 Access the Power Gear slide-out motor on the passenger side of the engine bay (**Figure 5.5**, page 5.9). In order to move the room manually, the brake lever on the end of the motor must be moved to the brake-release position

(Counterclockwise as you face the motor). Also, disconnect the red and black power lead wires extending from the motor that terminate in a small Amp plug connector or bayonet plug.

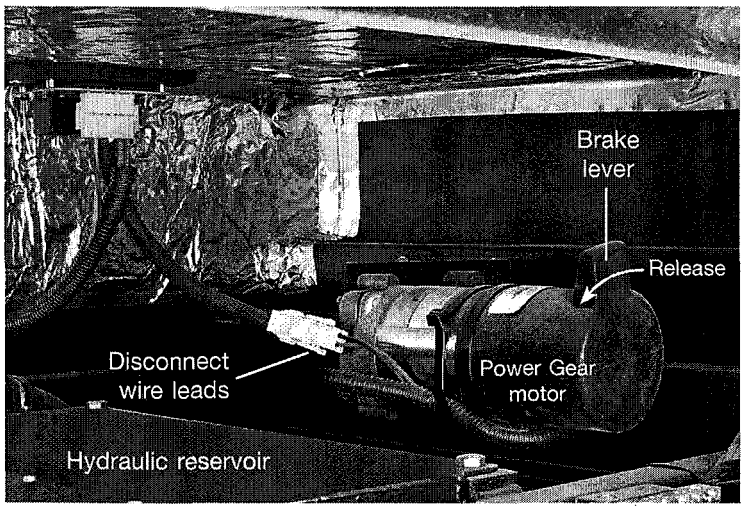



**Figure 5.5**
**'C' slide Power Gear motor**

2 At the top of the last bay on the passenger side, access the driveshaft for the slide-out mechanism (**Figure 5.6.** The shaft should be accessible just past the room slide mechanism on the side towards the rear of the coach. Placing an adjustable wrench on the shaft turn the shaft counter-clockwise to retract the room (pull wrench toward you.)

3 Once the room is fully retracted return to the motor, and reapply the brake (clockwise) to keep the room tightly closed.

4 Replace the cover on the equipment and your coach is ready for travel to an authorized repair shop.

**Note:** Let the service center know you've disconnected the power lead wires.

5 Once the coach has been repaired, reconnect the black and red leads to the motor to resume normal operation.

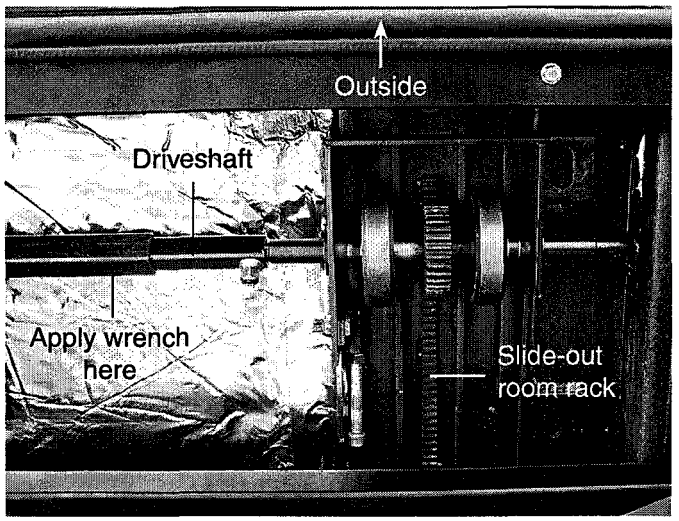



**Figure 5.6**
Service center bay access

**To manually retract the passenger-side bedroom 'C' slide-out (Inspire 360 FE):**

Due to the intricacies of the passenger-side slide-out room for the Inspire Founders Edition, the procedure for manual retraction of this room should be performed by a qualified Country Coach Service technician. If your location at the time does not permit a technician to reach you, contact the Country Coach Service Department and a technician will talk you through the procedure for accessing the Power Gear motor. It is located under a carpeted cover on the floor between the bed and the passenger-side cabinetry.

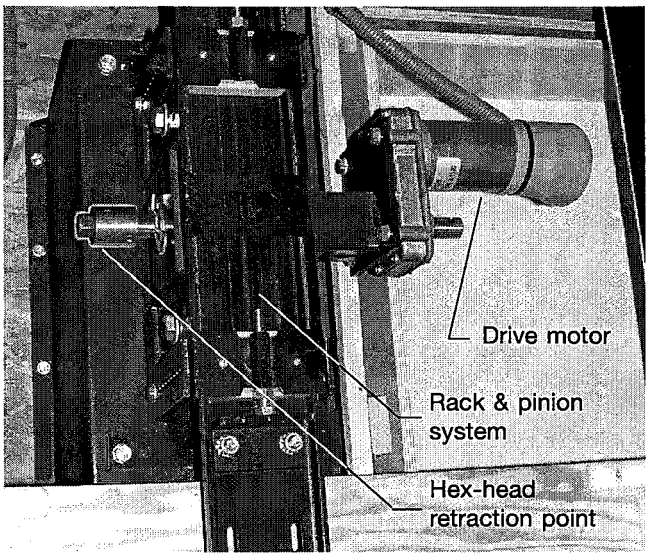



Figure 5.7
Bedroom slide-out mechanism (typical)

**To manually retract the driver-side bedroom 'D' slide-out (Inspire 360):**

- The bedroom slide-out emergency retraction system is located under the bed. The bed is hinged at the outer wall (the driver side) and can easily be lifted. This reveals the motorized rack and pinion drive system beneath. See **Figure 5.7.**

**! NOTICE**

**Be certain that all precautions that apply to normal room retraction are observed for manual retraction, as well.**

- The bedroom system consists of the same type of components that operate the other slide-out rooms. The only difference is that the Power Gear motor is fitted with a convenient 3/4" hex-head drive for attaching a wrench for retracting the room.

**To manually retract the driver-side bedroom 'D' slide-out room (Inspire 360 FE):**

Controls for the HWH bedroom extension hardware are conveniently located in cabinet near the bedroom.

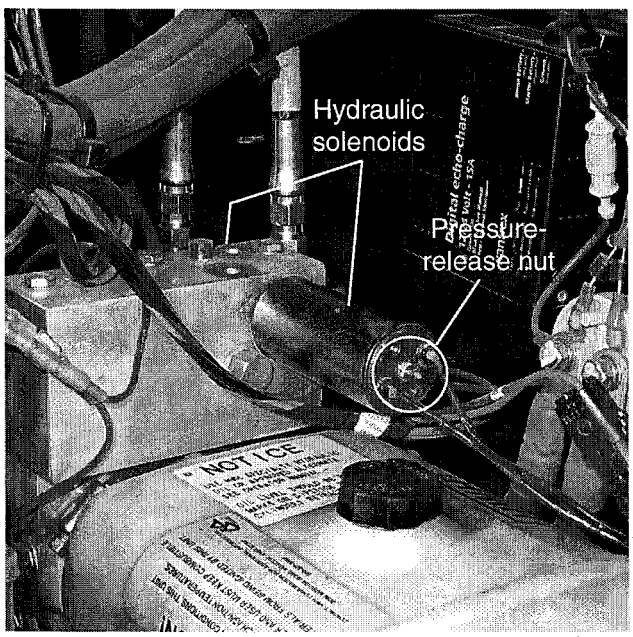



Figure 5.8
HWH pressure-release nut

In the unlikely event of a system failure, manual retraction of this bedroom slide-out may become necessary. The ratcheting device for this procedure is located in one of the passenger-side storage bays, including the required straps (blue).

An eyebolt for attachment of the straps can be found in a passenger-side cabinet behind a drawer. Familiarize yourself with the location and operation of this hardware (**Figures 5.9** and **5.10**).

**! NOTICE**

**Be certain that all precautions that apply to normal room retraction are observed for manual retraction, as well.**

1 Release the HWH solenoid valves (pressure-release nuts) for this slide-out room.

**To release pressure in the HWH system:**

a Locate the HWH solenoids, located in the last bay on the passenger side (**Figure 5.8**).

b Release pressure in the system by opening both solenoid valves, using either the built-in nut socket on the end of the HWH reservoir dipstick or a 1/4" wrench to rotate the pressure-release nuts on the ends of the solenoids. Loosen the nuts slowly, approximately 3 turns counterclockwise, until you hear a sound of rushing fluid. That will be the release of pressure in the system.

**! CAUTION**

**If you choose to use the end of the reservoir dipstick to loosen the nuts, take precautions to make sure the hydraulic fluid in the reservoir does not become contaminated.**

c Leave the valves open until the retraction procedure is complete, then retighten them.

2 Lift the bed from the foot until it stops. You'll be assisted by gas struts on either side.

3 Attach the hook on the long strap to the wall-mounted eyebolt behind the cabinet drawer, and the hook with the ratchet device to the eyebolt in the bed base (if equipped) or wrap the strap around the metal bed frame.

4 Connect the long strap to the ratchet and short strap as shown in **Figure 5.9.**

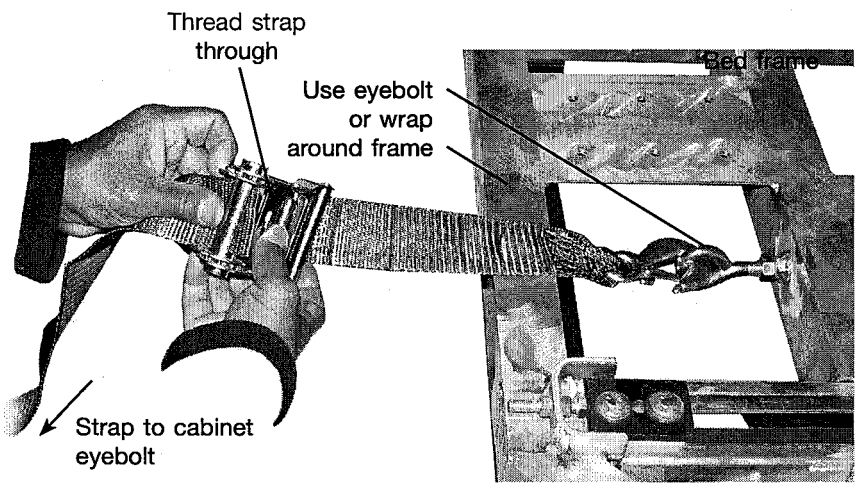



Figure 5.9
Bedroom slide retraction mechanism (typical)

5 With a back and forth movement, retract the slide-out room in, verifying its complete retraction by checking to see that the outside surface of the room is flush with that of the coach.

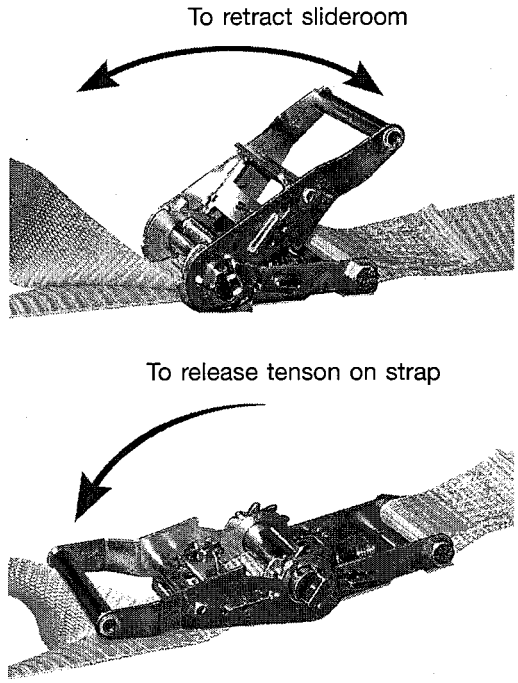



Figure 5.10
Bedroom slide retraction mechanism

6 When retraction is complete, flip the ratchet handle flat as in **Figure 5.10.**

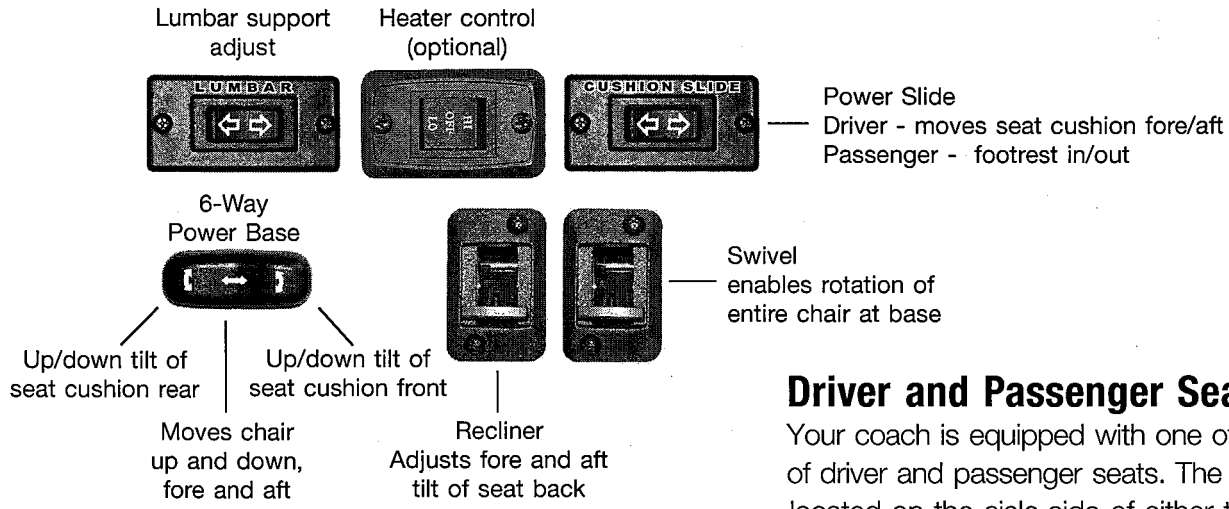



**Figure 5.11**
**Driver and passenger seat controls (typical)**

## Driver and Passenger Seat Controls

Your coach is equipped with one of two types of driver and passenger seats. The controls are located on the aisle side of either type and, though identical in appearance, may perform different functions. See **Figure 5.11** for the typical functions of these switches.

**Note:** The house-disconnect switch must be engaged for the seat controls to function.

## Refrigerator with Icemaker

A red tag warning notice is attached on the water supply line to the icemaker. This tag can be accessed behind the exterior refrigerator access door. Don't forget to winterize your icemaker if you plan to put the motorcoach into winter storage or continue its use in temperatures below freezing (32° F) without the use of a heat strip/tape (on the water solenoid valve and its outlet tube). The icemaker should be drained to prevent component damage and leaks.

For instructions on winterizing, care, and maintenance of your refrigerator and icemaker, refer to Chapter 6, **Appearance and Care** in this manual, as well as the manufacturer's manual located in the Coach Information Kit.

## Combination Washer and Dryer (option)

Your Inspire is pre-plumbed and pre-wired for a washer and dryer. If you opted for the combination washer and dryer, the following quick-reference instructions for basic operation should be helpful.

The maximum load for the washer is twelve pounds. The maximum dryer load is six to eight pounds.

**Before setting the controls, make sure:**

- The door is closed
- The **On/Off** button is Off (out)
- The **programs dial** is in a **Reset** position
- Any laundry aids have been added to the **Dispenser Drawer**

**To set a wash-to-dry cycle:**

**Washing**

1 Turn the **programs dial** clockwise to select a washing cycle

2 Turn the **wash temp** knob to set the wash water temperature.

3 Press one of the four **wash options** buttons to further customize the wash program.

**Drying**

4 Turn the **dry time** knob to select drying minutes.

Press the **on/off** button (in). The dryer begins drying when the wash cycle is complete.

**To set a washing cycle:**

**Washing**

1 Turn the **programs dial** clockwise to select a washing cycle

2 Turn the **wash temp** knob to set the wash water temperature.

3 Press one of the four **wash options** buttons to further customize the wash program.

**Drying**

4 Turn the **dry time** knob to **0.**

Press the **on/off** button (in). When the wash cycle is complete, the unit stops.

**To set a drying cycle:**

1 Turn the **programs dial** clockwise to select a dry cycle.

2 Turn the **dry time** knob to select drying minutes — 30 to 120 minutes.

3 Press the **on/off** button (in). When the drying cycle is complete, the unit stops.

**! WARNING**

**Failure to read the manufacturer-supplied manual prior to operating the washer/dryer for the first time could result in damage to the appliance and/or the coach. Unsafe operation can result in personal injury.**

Operating water is drawn from the fresh-water holding tank or the city water connection when available. Water from the washer is drained into the coach's gray-water holding tank.

**! NOTICE**

**In dry camping or park environments, check water holding tank capacities before operating this appliance.**

This appliance is connected to the 120 VAC system. Therefore, power from either the shore cord connection or the onboard generator must be available for the unit to operate. This unit cannot operate on the power inverter.

**! NOTICE**

**A lock engages while the washer/dryer is running to prevent the doors from opening. The lock does not release until approximately two minutes after the operation indicator light goes off. When the machine is new, the door's new seal may stick. In this case, lift up on the bottom of the door– not the handle.**

The efficiency of this washer/dryer system precludes the need for a lint filter and, therefore, the concern about locating and cleaning it. Splendide's pump system eliminates the need for you to clean a filter. The only reason you should ever need to enter the pump pre-chamber (behind the toe-kick) is if items such as keys or coins accidentally make their way into your wash load.

## Stacked Washer/Dryer (option)

The Intrigue coach may be equipped with a state-of-the-art washer and dryer. With such features as Electronic/Smart Controls, multiple spin-speed adjustments, and Energy Star technology, your washer can handle up to 15 pounds of dry laundry. Many years of satisfactory performance can be assured by observing proper operating and maintenance procedures.

### Basic Operation

**To load and start the washer:**

1 Press the **on/off** button to turn on the machine.

2 Load the laundry into the machine, and shut the door.

3 Add detergent and any fabric softener

4 Turn the **program selector** to the required program.

5 Select any options you require (see the **Option Modifiers** section in the User Guide).

6 Press the **start** button to start the program.

**To stop or change a program:**

1 Press and hold the **start** button for 5 seconds.

2 Turn the **program selector** knob to **Pump Out.**

3 When the machine has drained the water, rotate the **program selector** knob to the new program (you may need to add detergent).

4 Press the **start** button to start the program.

**! NOTICE**

- **When a load becomes unbalanced, a built-in feature of the machine attempts to redistribute the load to achieve full spin speed. If the machine fails to balance the load sufficiently, it reduces the spin speed accordingly, to prevent damage to the washer and the surroundings.**
- **Do not attempt to spin heavy or absorbent single items, as the machine may not be able to distribute these evenly. Add other items, so the washer can better balance the load throughout the drum.**
- **In camping or park environments, check the capacities of the water holding tank prior to operating this appliance.**

**To load and start the dryer:**

1 Sort your laundry according to fabric type (see the **Laundry** section in the dryer Owner's Manual).

2 Open the door and ensure that the filter is in clean and in place (see the **Maintenance** section in the dryer Owner's Manual).

3 Load the machine, ensuring that no clothing items are blocking the door seal. Close the door.

**! CAUTION**

**Do not load more than 5.5 pounds (dry weight) of laundry into the dryer. In other words, it is not advisable to attempt the drying of a full-sized washer load.**

4 If the **On/Off** light is not lit, press the **on/off** button.

5 Choose a program by checking the **Programs** guide as well as the indications for each type of fabric (see the **Programs** and **Laundry** sections, respectively, in the dryer Owner's Manual). Select a program by rotating the **programs** knob.

6 Set a delay time and other options, if necessary.

7 If you want the buzzer to sound at the end of the program, press the **alarm** option button.

8 Press the **start** button to begin. The display shows the estimated time left in the program.

During the drying program, you can check on your laundry and remove the items that are dry while others continue to dry. When you close the door again, press the **start** button to resume drying.

9 During the last few minutes of drying programs, before the program is completed, the final **Air Fluff** phase begins (fabrics are cooled). Always allow this phase to complete.

The buzzer (if the **Alarm** option was selected) alerts you when the program is complete.

10 Open the door, take out your laundry, and remove, clean, and replace the lint filter (see the **Maintenance** section in the dryer Owner's Manual).

If the **Post Creasecare** option has been selected and you do not take the clothes out immediately, the clothes tumble occasionally, or until you open the door.

**! NOTICE**

- **When resuming operation following a power outage, press the start button to continue the drying program.**
- **Both these appliances are connected to the 120 VAC system. Therefore, power from either the shore cord connection or the onboard generator must be available for the them to operate. These appliances cannot operate on the power inverter.**

For more detailed information, see the manufacturer's brochures contained in the Coach Information Kit.

## Entertainment Systems

The entertainment center is housed in a cabinet above the passenger seat. Included are the standard Home Theater System with DVD and CD changer, and the audio/video switch box. Options include a 10-disc CD changer, a stationary or an in-motion satellite system, and an in-motion satellite system with a high-definition (HD) receiver. Viewing is on either the standard 32" or optional 37" LCD HD TV.

### Home Theater System

The standard Panasonic AM/FM multi-disc system plays DVD audio and video, DVD-R, CD, CD-R/RW, and MP3 discs. Located in the bedroom cabinetry near the TV is the Executive mini-home theater system consisting of similar functions as the forward unit. It plays through two ceiling speakers and a subwoofer.

### Video Selector Switch Box

The video selector switch box (**Figure 5.7**, page 5.17) controls the input/output signals for the television sets and the DVD player. Across the front of the selector switch panel are a series of switches in three groups labeled **Main TV**, **VCR**, and **TV2**.

- **Main TV:** selects the signal to the living room television.
- **VCR:** (not functional in this coach)
- **TV 2:** selects the signal to the bedroom television.

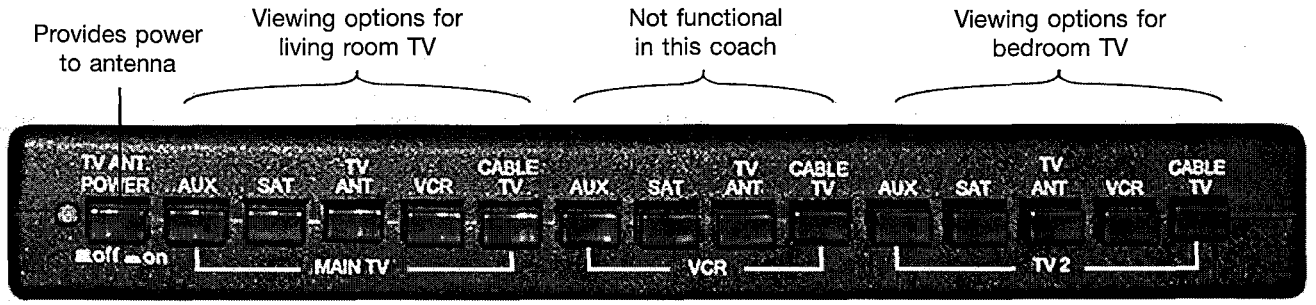



**Figure 5.7**
**Video selector switch box**

The source of the signal is determined by switch selection.

- **Ant** for the omnidirectional roof-mounted antenna.
- **Aux** input A/B switch is adjacent to the selector switch box for a switchable input from either a peripheral device or the shore-linked cable.
- **VCR** (not functional in this coach)

This selector switch makes it possible to watch signals from different sources on each television set separately. For additional information, refer to the manufacturer's manuals located in your Coach Information Kit.

## Exterior Telephone/Cable TV Connection

All Country Coach motorcoaches are pre-wired for telephone and cable television connections. The connectors are located in driver-side bay 5, and an adaptor is provided with your coach. The large end plugs into the phone receptacle, and the small end of the adaptor accepts the shore to coach phone service cable. The telephone jacks inside the coach work from this connection.

## Carefree Patio Awning

The control panel (**Figure 5.8**) for the Carefree entry door and patio awnings is located in the cabinetry above the entry door. In addition to extending and retracting the awnings, the larger panel enables you to change the wind-speed setting at which the Auto-Retract feature retracts the patio awning.

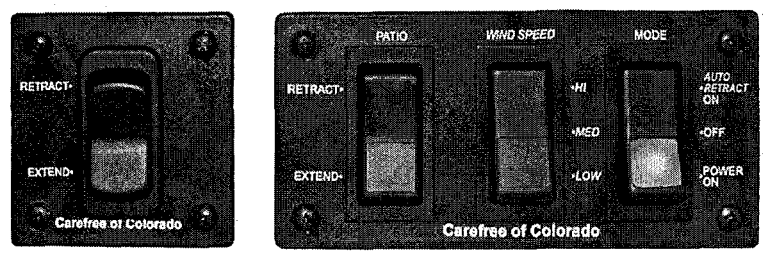



**Figure 5.8**
**Awning control switches (typical)**

### Basic Operation

Mode Switches:

**OFF** shuts the system down. The awning cannot be extended or retracted in this mode. It is strongly recommended that the switch be in this position whenever the awning is not used and during transport. This prevents the awning from extending accidentally.

**POWER ON** activates the switch controls.

**AUTO RETRACT ON** activates the switch controls as well as the **Wind Smart Auto-Retract** system.

When the switch is placed in the **Power On** or **Auto Retract On** position, the switch illuminate to indicate the system is on.

Patio Switch:

(The **mode** switch must be set to **Power On** or **Auto Retract On**)

Press and release **Extend** to fully extend the awning. To stop the awning before it is open, press and release **Extend** a second time; or, switch the **mode** switch to the **Off** position.

Press and release **Retract** to retract the awning until it is fully closed. To stop the awning before it is closed, press and release **Retract** a second time; or, switch the **mode** switch to the **Off** position.

Wind Speed Switch (Wind Smart Auto-Retract System):

When activated, the **Wind Smart Auto-Retract System** retracts the awning automatically in windy conditions. (The **Mode** switch must be set to **Auto Retract On**.)

Sensitivity Switch:

**HI** is the least sensitive, and responds to winds approximately equal to 12 mph.

**MED** responds to winds approximately equal to 8 mph.

**LOW** is the most sensitive, and responds to winds approximately equal to 4 mph.

### Weather Precautions

If you are leaving your vehicle for any length of time or retiring for the night, take a minute to retract the awning. It takes less time than closing your windows and affords you the best protection for your awning and vehicle.

**! NOTICE**

**Although this awning is designed to remain extended during periods of light to moderate rain and wind (a "rain dump" system automatically lowers the awning to dump water from the awning), it should be retracted if high wind, rain, or snow threaten. Awnings are not made to withstand high wind, nor can they hold the 500 to 700 pounds of water that can accumulate in rain or snow.**

## Carefree Window and Slide Room Awnings

### Basic Operating Instructions

**Extension/retraction of non-window slide-out awnings:** The awning extends and retract with the slide-out room, becoming fully extended with full extension of the slide-out room.

**Extension/retraction of window-shading slide-out awnings:** Once the slide-out room is extended fully, use the pull cane to push the arm lock up, unlocking it. Grab the center pull strap loop and pull the awning out of its case, hooking the strap to the pull strap catch on the wall of the slide-out room. To retract, reverse the process. Awnings over windows not on slide-outs are extended in the same way.

## Girard Patio Awning

The optional Girard lateral-arm awning offers push-button operation with remote control, and a manual hand crank for emergency power failures.

### Operating Instructions

To operate the awning, simply push the lower button on the wall-mounted panel or on the remote transmitter to extend the awning. The awning continues to open until it reaches full extension; it then stops automatically. Pressing the top button retracts the awning and the motor turns off when the awning is fully closed.

The awning can be stopped at any time and in any direction by pushing the **stop** button. In the event of excessive winds, the wind sensor overrides manual commands.

**! NOTICE**

**Please be aware: When it's raining, fully extend your awning for proper operation!**

**The Girard awning is at its strongest when the awning is fully extended and the arms are locked into position. Avoid leaving the awning partially open during rainy conditions. Leaving your awning partially open when raining allows water to "pool" in the awning material, and the added weight can weaken and eventually damage or collapse the awning structure.**

### Wind Sensor

Your awning is designed to retract in the event of high winds as long as 120 VAC power is available and wind has unrestricted access to the wind cup sensor mounted on the roof of your motorcoach. The wind sensor is factory-set at 22 mph. If actual wind speed becomes greater than the wind speed setting of your controller, a two-second delay occurs, and a signal is sent to retract the awning (see the Girard manual in your Coach Information Kit to change the wind speed setting).

**! NOTICE**

**The awning remains retracted until it is once again extended by pressing the lower button.**

## Crank Operation

A hand crank is supplied with every awning as a motor-override feature. The awning easily telescopes from 50 to 82 inches. Simply insert the end of the crank into the receiver, which is located at the end of the awning. Push up and rotate the handle one-quarter turn clockwise, then let the handle drop half an inch. You should then feel the handle lodge in the receiver. You are now ready to extend the awning. To open the awning, rotate the handle in a counterclockwise direction; to close, rotate it clockwise.

**! NOTICE**

**When extending the awning to full extension, extend only until the elbowing arms "click" and lock themselves into place. Unrolling the awning farther than this point results in excessive slack in the awning fabric.**

**The fabric must always roll from the bottom. When the awning is rolled past full extension, the fabric can reverse from the bottom of the roller tube to the top of the tube. If this should happen, simply crank the awning all the way out until the roller tube is exposed and continue cranking in the same direction.**

When the awning is extended to the preferred position, push up on the crank handle and turn counterclockwise one-quarter turn, which releases the crank handle from its housing. The crank handle can then be stored in a convenient place. The motor used in the Girard uses approximately 300 watts and draw approximately three amps of power.

**! NOTICE**

**The motor in the Girard is NOT designed for continuous use. In the event that the motor is used to excess, it shuts off automatically and be inoperative until the internal breaker cools down and resets. Run time is 4-5 minutes per hour. Reset time is 30 minutes to 1 hour depending on outside temperature.**

## Setting Motor Limits

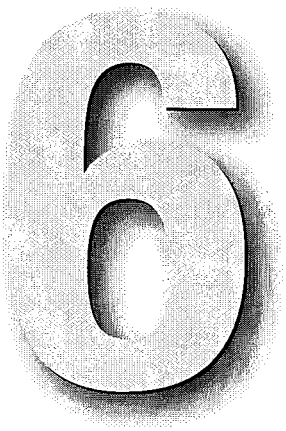
If the awning does not close completely, and there is no apparent binding of any awning components, then the fabric has most likely stretched or shifted slightly over time. This can be easily corrected by adjusting the motor limits. This allows the awning roller tube to run a split second longer to draw the awning fabric in tighter.

- **Adjust in:** the in limit switch is located closest (inward) to the vehicle side. A current-limiting device detects current increase as the awning box closes. This eliminates the need for future inbound adjustments.
- **Adjust out:** the out limit switch is located farthest (outward) from the vehicle side. The out limit is factory-preset to stop the motor when the arms reach full extension.

To adjust beyond the factory-set limits, see the Girard awning manual included in your Coach Information Kit.

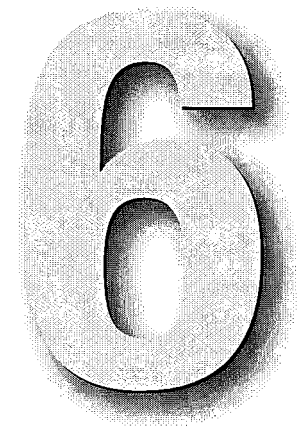
# Appearance and Care





# Appearance and Care





# APPEARANCE AND CARE

## Washing the Coach

Before washing the exterior, be sure windows are closed and locked. Close all doors and vents, and lock storage compartments so water does not get into them. Wash the exterior with a mild soap solution, rinse thoroughly, and dry. **Never** use strong alkaline cleaners and abrasives. **Do not** spray water directly into the refrigerator grille, furnace vents, window weep holes or similar openings.

Wash the windows with warm, soapy water, and dry with soft cloths. Commercially-available cleaning products such as Windex (or equivalent) are recommended when used at proper dilution ratios. Avoid using any abrasive cleaning tools or rough pads. These can scratch the glass and the painted aluminum frames.

## Protecting the Exterior

The following useful terms relate to cleaning and waxing your vehicle:

**Cleaner:** Cleaning agents are classified into two broad categories, either friction or chemical. Friction cleaners use a silicate or clay particulate to smooth the surface and are usually described as fine, medium or heavy cut (when in doubt, always use the least abrasive product). Chemical cleaners are usually more effective at removing bugs, stains, tree sap and tar. Avoid silicone-based products, as they can cause future problems.

**Glaze:** This usually refers to a superfine friction type cleaning agent, usually including emollients and lubricating oils and sometimes mild chemical cleaners. Glazes usually remove mild swirl marks and scratches as well as refresh the paint and smooth out the finish.

**Polish:** A polish is usually a nonabrasive oil-based product and may or may not have a chemical cleaner included. Most polishes use fillers to help cover swirl marks.

**Compound:** A compound is equivalent to using coarse sandpaper on your paint. Compounds should only be used if the paint is seriously degraded and all else has failed. Rather than using a compound, we recommend consulting a professional for assistance.

**Clay:** Like a compound, using clay without professional assistance can cause expensive damage to your paint.

**Cleaner/Wax:** These products are usually a combination of a chemical cleaner and a wax. Though it may save time, this product is doing two very different functions, cleaning and waxing at the same time, usually doing neither function well.

**Wax:** There are two categories of wax, organic and polymer based. Organic waxes are derived from plants, such as carnauba, or from animals, such as bee's wax, or from paraffin. The polymer-based waxes are usually made in chemical factories.

**Degreasers & Tar/Bug Removers:** These products are normally solvents designed to dissolve surface contaminants such as road tar and bugs. Most of these removers contain harsh chemicals that may cause long-term damage to your paint.

### Paint

The portion of the coach that is painted requires minimal, but regular care. It can be maintained by periodic washing and waxing in the same manner as described in the fiberglass topic. Any visible scuff marks can be removed with a medium grade rubbing or buffing compound. To conceal small scratches, apply paint with a small touch-up brush using the color codes that match your paint. These color codes are listed inside the Coach Information Kit that comes with your coach. Never use paint thinner or remover on the painted portion of your coach.

### Fiberglass

The majority of the exterior finish of the motorcoach is a polyester-based gel coat. The finish is chemically laminated to the fiberglass and serves as a weather-resistant outer shell. The color coat is 15 to 18 mils thick and is easily maintained in the same manner as automobile paint. Periodic washing and waxing is the only general maintenance required. A mild detergent solution, for cleaning, and a commercial auto wax, for protection, are sufficient to maintain the coach's exterior finish.

If the surface has dulled due to neglect or severe weather exposure, it can easily be returned to its original lustre with a mild rubbing compound, followed by a wash and wax.

## Cleaning Awnings

The fabric can be cleaned without being removed from the awning casing. Simply brush off any loose dirt or leaves. Hose down and clean with a cloth and mild solution of natural soap in lukewarm water. Rinse thoroughly to remove soap.

Allow to air dry, preferably on a warm sunny day. If you must retract the awning before it has dried, the awning should be extended at the first possible opportunity to finish air drying.

The following recommendations can help you maintain the appearance of your awning and delay vigorous cleanings:

- **To prevent dirt from becoming deeply imbedded in the fabric, rinse the fabric with a hose and clear water at least once a month. A thorough cleaning every two to three years should be sufficient to maintain the resiliency of the fabric in most environments. With care, the finish can last the life of the awning.**
- **When a thorough cleaning is required, the Sunbrella fabric can be cleaned while on the awning frame. Removal of the fabric from the frame is not recommended.**
- **Always use a natural soap in cold or lukewarm water (never more that 100 degrees), and air dry only. Avoid applying heat to the Sunbrella fabric.**

**Note:** Do not use detergent or bleach!

- **To maintain the awning hardware, periodically check all mounting components, and tighten screws, lags, and so on, as required. Occasionally, flush the arm assemblies with low-pressure water to keep them free of debris, being careful not allow the water to penetrate motorized and non-motorized housings.**

**! NOTICE**

**Although this awning is designed to remain extended during periods of light to moderate rain and wind (a "rain dump" system automatically lowers the awning to dump water from the awning), it should be retracted if high wind, rain, or snow threaten. Awnings are not made to withstand high wind, nor can they hold the 500 to 700 pounds of water that can accumulate in rain or snow.**

## Cleaning Tires

Like the rest of your motorcoach, it pays to keep your tires clean. Road oil causes deterioration of the rubber, and dirt buildup helps hold the chemicals in the air next to the tire, causing it to deteriorate. As with the cleaning of any rubber product, proper care and cleaning methods must be used to obtain the maximum service years out of your tires. A soft brush and normal mild soap that you would use to clean your coach may be used. If you use a dressing product to protect your tires from aging, use extra care and caution. Tire dressings that contain petroleum products or alcohol may cause deterioration or cracking. In many cases, it is not the dressing itself that is a problem, but the chemical reaction that the product has with the antioxidant compound in the tire. Heat can add to the negative reaction. When these same dressing products are used on a passenger car tire that is replaced every three to four years, it is rare to see a major problem. However, RV tires last much longer due to limited annual mileage, thereby giving the chemical reactions much more time to take effect. See your tire dealer for recommendations on tire dressings.

## Cleaning Interior Soft Surfaces

Country Coach prides itself on the fine detail given to creating an elegant interior decor. Naturally, a regular routine of care and cleaning helps maintain and extend the original luster and beauty of this decor. The following are provided as suggestions for maintaining some features of the interior.

### Interior Maintenance Products

- **Vinyl-upholstered areas can be cleaned with a mild soap and water solution. Use an abrasive-free towel to wipe dry. For areas with stubborn stains and heavy-use areas, try Formula 409. Vinyl-covered wall panels can be cleaned as often as needed using only a soft cloth, mild detergent, and warm water. Do not use bleach, cleaners with harsh chemicals or solvents, or oil-based spray cleaners.**
- **Folix works well to clean spots on the carpet and furniture fabric.**
- **To prevent the accumulation of dust, vacuum the day/night shades regularly.**

### Carpets

Vacuum carpets after each trip. Clean any spills immediately. The longer they remain on the carpet, the deeper they set and the more difficult they become to remove. Remove stains with a standard household carpet cleaner. Do not use ordinary soap or detergent, since it tends to leave a residue that attracts dust and hastens soiling. Capture is recommended for all-over cleaning, with Folix being used for spot cleaning. For stubborn stains, see your carpet cleaning specialist for advice.

### Day/Night Shades

Use a mild detergent, such as Ivory, with a white wash rag for spot cleaning only. **Do not** saturate with water or dry clean. Vacuuming can also help to clean. Dry brushing and vacuuming are the best methods to prolong the life of your shades. Shades should only be opened or closed by pushing the rails with the knobs provided; move only one rail at a time. They should remain up when not in use to aid in pleat retention. If tension adjustments become necessary, simply wind cords around the center of the bobbin fastener to tighten, or re-tie to loosen. Adjustments should be made equally on both cords for the shade to remain level. Rubbing cords with paraffin wax (or candle wax) helps lengthen the life of the cords by reducing friction and fraying.

### Draperies and Upholstery Care

Keep your draperies and upholstery looking fresh and clean by treating them like any upholstered furniture in your home. The fabrics used in your motorcoach are not washable and should be dry-cleaned only. **Do not** launder. Seat covers may be spot-cleaned with a foam-type spot remover. If overall cleaning becomes necessary, have the seat covers dry-cleaned by professionals.

### Leather

Avoid exposing leather to direct sunlight, intensive heat, excessive hard rubbing or soaking. Most liquids are initially repelled by leather, but if left to stand over an extended period of time they are absorbed. Wipe up spills immediately with a soft cloth. **Never** use saddle soap, abrasive cleanser, soap, furniture polish oil, varnish, or ammonia water on leather. Also, avoid detergents, general cleaning products, insecticide sprays and powders, sun-block/tanning lotion, methylated spirits, glass, or surface cleaners. **Do not** use products containing silicon or solvents. Consult a leather cleaning expert for more information.

### Ultraleather

A synthetic material, Ultraleather is tough and durable, exceeding more than six times the heavy-duty industry endurance standards. Cleaning instructions are simple and straightforward:

- **Spot clean with mild soap and water.**
- **Air dry or dry quickly with a hair dryer on a warm setting.**
- **For stubborn stains, use a mild solvent.**
- **Disinfect, if needed, with a 5:1 solution of water to bleach.**

### Ceiling Fabric

Frequent vacuuming helps to maintain a soil-free surface. For cleaning and spot removal, refer to the **Ultraleather** section above. The materials are similar and are cleaned in the same manner.

## Maintaining Interior Hard Surfaces

The following list is a set of suggestions for maintaining the hard-surface features of the interior:

- **Petroleum distillate-based solvents should not be used on the interior of the coach. These cleansers can cause considerable damage to the solid-surface counter tops, the finish on the woodwork, the dash panels, and other materials in the coach.**
- **Wood surfaces can be kept looking like new by using any commercial panel cleaner. We have had the best results with Panel Magic.**
- **Abrasive cleaners should not be used on showers, power hoods, or sinks. A mild soap and water solution is usually all that is necessary. Soft Scrub may be used in showers and sinks. It is recommended that you clean a small test area first.**
- **Small abrasions on the microwave face can be rubbed out with paste Turtle Wax and a paper towel.**

- Never clean your dash panel with abrasive cleansers. Use glass cleaner and a soft cloth. The manufacturer recommends Windex.
- To clean the Plexiglas used in various areas of the coach, such as TV doors, stemware rack, etc., use mild soap and water only. Use of glass cleaner may cause "spider cracks".
- Interior metal surfaces can be cleaned with various products, including Brite Boy and WD-40.

**! NOTICE**

**WD-40 contains petroleum distillates and has a foul aroma. Be careful that over-spray does not spread to sensitive material.**

### Stone and Marble Surfaces

Most finishes don't adhere well to a polished surface, so an ongoing maintenance system is required, one that does the following:

- Avoids heavy coats
- Does not block pores
- Does not easily scratch
- May be easily stripped
- All stone and marble surfaces should be cleaned regularly to protect their natural beauty. For polished stone and marble, apply a polish preserver monthly, bimonthly, or even weekly, depending on foot traffic. This protects against foot abrasion, preserve the shine, and minimize the need for extensive restoration.
- You should also consider daily use of a no-rinse stone soap, pH neutral and 100% natural, suitable for all types of finishes. When used regularly, it forms a dirt repellent film, colors become more vivid, and the appearance is enhanced with time.
- Urethane finishes and other heavy coats should be avoided for natural stone and marble. Instead, a natural mild soap, which acts as a conditioner, is required for daily use.
- A polish is recommended for weekly use, which forms a slight film in order to protect the polished surface against abrasion, without clogging the pores or leaving a buildup. This type of polish can be spot patched, applied over itself, and easily stripped with an odorless, non-alkaline solution (pH 7-8).

## Solid-Surface Materials

The preferred solid-surface counter top material used in various locations in your coach is tougher and more stain-resistant than real marble. Its nonporous composition helps avoid the normal damaging effects of time and use. With these advantages, we consider this surface the finest counter top material available today.

Country Coach has specifically chosen to include this high-quality material in your coach. Custom-crafted pieces may be found on the galley counter, vanity, and nightstands, as well as various table tops throughout the coach.

The following suggestions help you to maintain your solid surfaces in their original condition:

- **Wipe off stains with a damp cloth and household cleaner. The surface cannot be permanently harmed by abrasive cleaners because the color and texture are solid throughout.**

**Note:** **Extra care should be taken with high-gloss finishes. A light sanding with a fine grit sandpaper followed by buffing should be sufficient to remove most minor scratches. Deeper scratches may require a heavier grit sandpaper.**

- **To prevent scratches, always use a cutting board when slicing.**
- **Although the surface is very durable, do not place hot pans on it. Use a hot-pad or trivet.**
- **Scratches, cigarette burns, or any other surface abuse can usually be removed with household cleaners or fine sandpaper. If damage is deep, use a medium sandpaper (120 or 140 grit) followed by a fine sandpaper (320 or 400 grit). Buff with a Scotch-Brite pad, using a circular motion to blend in the repair with the surrounding surface. Household cleaner, steel wool, or DuPont #7 Polishing Compound can also be used if a higher gloss level is preferred.**
- **Chemicals such as paint remover, drain opener, and nail polish remover harm the surface. If any of these substances are spilled on the surface, wipe them away quickly and flush with water.**
- **Never stand on the counters.**
- **Avoid harsh chemicals such as drain cleaners and paint removers.**
- **For high gloss counters, place felt protectors on the bottom of pottery or other hard objects.**
- **Avoid sliding hard objects across these glossy surfaces.**
- **Always run cool water when pouring boiling water into solid-surface sinks.**

## Ceramic Tile

Usually, cleaning with a solution of vinegar and water is all that is required. **Never** use abrasive cleaners or steel wool.

### Lavatory and Shower

Wash with mild soap and water or use a product like Soft Scrub. **Do not** use abrasive cleaners, scouring pads, or solvents, as they can damage and dull the finish. Fiberglass polish may be used. Follow the instructions on the container.

### Windows

Your coach windows are coated with a reflective mirror-tint protective UV coating. Window surfaces retain a like-new appearance and clarity by using the same procedures and products as used by our quality-assurance and detail team.

**Exterior:** Before shipping, the exterior surfaces of your coach windows are cleaned with rubbing alcohol, which is used to prevent streaks, and a soft terry cloth to resist scratching. Rain spots may be removed with the use of P&S Sales' Glass Crème.

**To clean windows with Glass Crème:**

1 Wipe Glass Crème onto glass (or metal) and gently rub with a damp sponge.

2 Let dry to a light haze.

3 Wipe off with a clean terry cloth towel.

**Interior:** Inside the coach use Windex with vinegar and household paper towels to clean the windows.

**! WARNING**

**Do NOT use paper towels on plastic surfaces. To avoid scratches on dash gauges and other plastic surfaces use a damp terry cloth towel.**

**Do NOT apply decals, stickers, or stick-on items to the exterior or interior surfaces of your windows. Such items may peel the window tint or protective coatings from your windows.**

### Plexiglas

**Masking Paper Adhesive:** Dab with the gummed surface of the masking paper. If this fails, wipe with VM&P naphtha on a clean cloth and rinse with a dilute water-detergent solution, or wipe with 99% isopropyl alcohol and rinse with clean water. VM&P naptha is available at marine, aircraft, and automotive supply stores. 99% isopropyl alcohol can be found at industrial cleaning supply outlets.

**Water-Soluble Contaminants:** Wash with a detergent-water solution followed by a fresh water rinse.

**! NOTICE**

**When a clean water rinse is specified, use distilled or deionized water to prevent water spotting.**

**Fingerprints:** Wipe with a soft, clean cloth dampened with 99% isopropyl alcohol.

**Oil-Soluble Contaminants:** Use a hydrocarbon solvent such as VM&P naphtha, kerosene, or mineral spirits. Follow with a detergent-water wash, and a clean water rinse.

**Spray-Masking Compounds:** Wipe the area with a damp synthetic sponge, then wipe the surface with VM&P naphtha or isopropyl alcohol.

**Grease-Forming Compounds:** Wash with kerosene or mineral spirits. Follow by washing with a detergent-water solution and clean water rinse.

**Silicone, Oil, and Grease:** Avoid contact completely.

**! NOTICE**

**Once contaminated with silicone, plexiglas is virtually impossible to clean.**

### Cabinet Repair

Cabinet repairs range from small superficial abrasions to serious scratches, dings, and chip-outs in paneling and cabinets.

**Wood:** To repair superficial mars and scratches, we recommend a top-of-the-line paneling cleaner. We use Panel Magic. Scratches on paneling and cabinets can be treated with Old English Scratch Cover. Apply a small amount with a clean, dry cloth. Wipe off the excess and buff with a clean, dry cloth.

To repair small dings and chips, use Weldwood Blend Sticks. This product can be found at hardware or paint stores. Rub the stick into the damaged area until the surface is smooth. Wipe off the excess with a clean, dry cloth and a small amount of lemon oil.

**Laminates:** Minor surface scratches can sometimes be repaired using Laminate Seamfill. For any surfaces with severe scratches and damaged areas, we recommend that the repair work be done by a qualified cabinet shop or furniture refinisher.

**! NOTICE**

**If you are storing a coach in warmer environments, be sure to provide adequate ventilation. Failure to provide ventilation can result in damage to the interior wall coverings and woodwork.**

## Maintaining Seals

Over time, the effects of normal operation subject your coach to a number of extreme conditions and stresses that cause the sealants or seals to fail. Sealants don't last forever so failure is a matter of when, not if. Age, thermal cycling, and exposure to UV rays can all combine to degrade sealants, causing loss of performance and allowing water or air to seep in.

The sealants used in the fabrication of your coach eventually require maintenance. Inspect around the doors, windows, moldings, and roof components on a regular basis. If any defects are discovered, repair them immediately. You can obtain proper sealants from your dealer or the Country Coach Parts Department.

### Inspecting Seals

Consider precipitation, temperature changes, extreme climates, and UV exposure when deciding how often to inspect coach seals:

- **Yearly — for the first few years of ownership if you store your coach indoors in a temperature-controlled environment most of the time. Aging is the primary factor here.**
- **Every 6 months — when your coach is subjected to extremes in climate and outdoor UV exposure, or every 3-4 months if such conditions and exposure become constant.**

Most areas of the coach can be inspected from the ground level during a walk-around inspection or with the aid of a short ladder.

The roof also has many areas that require inspection, such as sky lights, air vents, plumbing vents, antennas, refrigerator vents, front and rear caps, and air horns. The roof, however, should be inspected by a qualified service technician with the safety equipment that is required to easily access all parts of the coach roof.

Of special importance is the top exterior wall seam of a slide room that has a retractable awning attached. The awnings need to be removed to allow proper observation of the seam, and the removal procedure is potentially very hazardous. The awning mechanism contain spring-loaded retractors that, if not handled properly, can cause severe injury and expensive damage to your coach.

To accomplish this task, walk around the outside of your vehicle and take a close look where you find an opening or seam in your walls and roof. This includes around doors, windows, vents, etc.

**Check for these signs of seal degradation:**

- **Lack of sealant adhesion or loose, partially detached, or missing sealant**
- **Discoloration, cracking, shrinking, or voids. A certain amount of discoloration is normal.**
- **Areas around items added to the coach after manufacture**
- **Wear spots at joints where multiple body segments come together**
- **Peeling sealer**

One of the most common sealer problems is found when putty tape is used. Look for an oily residue around the putty tape; this is symptomatic of degradation. Dust adheres to the residue, leaving a dirty smear. A common spot to find putty tape issues is around the windows. If you find putty tape creeping from under window gaps, look for further gaps around other windows. It is recommended that you take your coach to your service center and have bad seals replaced by a professional.

### Repairing Seals

For minor sealant repairs and replacement, the following tools are needed:

- **Plastic putty stick.** Using any scraping tool other than a plastic putty stick may damage the finish on your coach.
- **Denatured alcohol** (for cleaning off any leftover residue).
- **Sealant.** For rubber-to-fiberglass and metal-to-metal applications, use a pliable silicone sealer.
- **Good quality sealant gun.**

**To make minor repairs to the seals:**

1 Strip away all the bad sealer. Use your plastic putty stick to gently scrape away the old sealant.

2 Once you have the area cleared, clean it with denatured alcohol.

3 Run a bead of new sealer. Cut the nozzle of your sealer tube at about a 25° angle and be sure it is the same size as the bead you want to run. As you begin to run a bead, keep the silicone even with the front of the tube. Don't let it build up a bead in front of your progress. This ensures a good seal and an attractive bead.

4 As you reach the end of your work space, anticipate the end of the bead and release pressure from the gun handle early so you don't end up with a lot of extra bead at the end.

5 Clean up excess sealant.

If you spill sealer, it can usually be cleaned with soap and water if you catch it immediately. Always follow the sealer manufacturer's directions for accidental spills.

## Storing the Coach

If you intend to store your coach for an extended period, you are advised to do the following:

- Fill the fuel tanks to prevent build up of condensation and moisture.
- Inspect the unit for damage, particularly the roof, and repair as necessary. Check the caulking around vents, windows, and doors.
- Your coach should be cleaned and waxed prior to storage, especially if it is to be stored outside in the weather. This is a good time to check all the seals on the roof. Wash the underside to remove any accumulated road salts. A coat of WD-40 protects chrome and unpainted aluminum.
- Remove all perishables from the refrigerator. Clean the interior with a disinfectant cleanser. It's a good idea to leave the refrigerator doors partially open for air circulation.

- Leave all interior storage doors and drawers ajar. Be sure all windows and vents are closed and secured.
- Drain and blow out the entire fresh water and plumbing system with low-pressure air, including the water heater, ice maker water supply lines, and the washer/dryer water supply lines. The cartridge should be removed from the fresh water filter. Install a new one only when the coach is brought back into service. (See **Draining the Fresh Water System** in Chapter 4.)
- For coaches with an LP gas system, turn off the LP gas detector and the LP shutoff valve at the main tank. Make sure all appliance controls and valves are off.
- Cover the furnace and refrigerator vents to keep insects, moisture, and dirt out.
- Cover the roof air conditioner units if your coach is not completely covered. Slight openings of vents allow air circulation without worry of water entering. Leaving an air freshener agent minimizes odors from plastics and other materials.
- Make sure all clocks, radios, and lights are turned off.
- Put graphite in door locks.
- Check the unit once a week to provide ventilation and ensure that it is not leaking or becoming musty or moldy. Check all fluid levels.
- If the batteries are to remain unattended for an extended period of time, disconnect them from the coach. Unused batteries discharge themselves if left connected.
- Refer to the generator manufacturer's operations manual for storage procedures, and also see **Winterizing.**
- Turn both the house and chassis battery-disconnect switches off, or disconnect the battery leads if provisions have not been made to maintain a fully-charged state.

**! NOTICE**

**If you are storing the coach in warm climates, provide adequate ventilation by opening a window slightly. Failure to provide ventilation can result in damage to the interior wall coverings and woodwork. Treat your motorcoach as you would treat your home.**

### Long-Term Storage of RV Tires

Rubber tires age faster when not being used. There are steps that you can take to reduce the aging effects from long-term RV storage. Before putting your motorcoach into storage, thoroughly clean your tires and inflate them to the recommended maximum pressure. Then cover the tires to prevent exposure to direct sunlight and ultraviolet rays. Failure to take these simple steps can lead to early deterioration and shorten the life of your tires.

## Winterizing

Certain precautions should be observed to protect the water system if the coach is stored in colder climates. Before storing the vehicle, perform the following winterizing procedures:

**To prepare holding tanks for winter:**

- See the **Wastewater System** topic in Chapter 4 regarding procedures for dumping the holding tanks. During the black-water tank rinse phase of the dump procedure, shut off the water supply to the toilet, and flush the remaining water in the bowl.
- Apply a thin coat of silicone-base valve seal lubricant (such as Dow Corning III Valve Lube & Seal) to both the soft rubber portions of the toilet drain valve assembly and the moving parts of the knife-valve assembly.
- All water-holding tanks should be drained, the black- and gray-water tanks flushed, and left empty.

**To winterize the fresh water system:**

1 Disconnect the electrical power supply to the water heater. As an additional precaution to prevent damage to the electrical heating elements, Country Coach recommends that the power supply circuit be shut off at the 120 VAC distribution panel.

2 Drain the fresh-water tank by turning off the water pump switch and opening the fresh-water drain valves, including the low-point drain(s). Open all house service faucets (including the line to the toilet) to allow the fresh water lines to drain freely.

3 With the fresh-water tank and holding tank system drained, turn the fresh water pump switch on for approximately five seconds. This forces any remaining water out of the pump mechanism. When no more water appears to be draining, turn off the fresh-water drain valves, and close the service faucets and toilet supply line valve. Close the manual low-point drain on the water heater.

4 Remove residual water still trapped in the system. Remove and drain the water filter. Attach the blowout adapter plug to the city water connection and purge the remaining water by using pressurized air. Allow the icemaker to continue producing ice until no water is available.

5 Prevent the water remaining in the P-traps and holding tanks from freezing. Pour about one cup of antifreeze (this antifreeze should be of the nontoxic variety, such as CEMCO Freeze Ban) into each drain. **Do Not** use engine coolant or engine antifreeze for this procedure.

**To winterize other items:**

- Be sure that the coolant/antifreeze is within adequate levels for both the coach engine reserve tank and the generator overflow bottle.
- Confirm that the house and chassis battery-disconnect switches are off.
- Turn off the LP gas at the tank.

**To winterize items requiring special attention:**

- **Batteries:** If your chassis or house batteries are left in a discharged condition during inclement weather, they may freeze, rendering them useless when they thaw. Even after being frozen only once, they do not accept or hold a charge when they do thaw. To prevent liquid batteries from freezing, keep the water at the proper level and, of course, fully-charged as much as possible.

  On Country Coach motorcoaches, while plugged into shore power, charging is automatic. Of course, inside storage with 120 VAC electrical power is preferable, but in many locations this is unavailable, so another charging source may by required. Your onboard generator or a standalone external charger can be used to charge your batteries.

**Note:** Your coach batteries require a 3-stage charger for this purpose. Do not use a standard automotive charger.

- **Tires:** Tires should be inflated to the recommended pressures, parked on a dry, level surface, and if outside, covered to prevent ultraviolet damage from the sun during storage periods.
- **Engine Coolant:** Caterpillar recommends that the coolant be maintained as a 50/50 mixture of low silicate antifreeze and water. This gives freeze protection down to –34 degrees Fahrenheit. However, if you must store at colder temperatures, a stronger mixture of antifreeze and water may be required. Check with your engine manufacturer if you expect colder climates. Check your engine coolant additives annually, and maintain them at the proper concentration. Your engine manufacturer's dealer-service network can check the additive and contamination levels of your coolant. This is a very easy test that is accomplished with a sample of coolant taken from your cooling system surge tank.

**! CAUTION**

**Straight antifreeze should NEVER be used, since cooling and freeze protection require water mixed with the antifreeze for proper circulation.**

Don't forget the cooling system for your onboard generator. This cooling system should also be serviced, using the same guidelines as for the main engine. You may be using your generator during cold weather for battery charging purposes, so proper servicing of it is essential.

Unfortunately, many owners tend to forget their generators until they need them, only to discover that the lack of proper service has made them unreliable.

- **Engine Belts and Hoses**: Cold weather can make rubber very brittle and cause a worn belt to break. Any sign of cracking or fraying on any engine belt indicates replacement is necessary. Some models of Country Coach motorcoaches have more than one belt-driven accessory. A good rule of thumb is to replace all engine drive belts at the same time so they are all the same age, precluding the quandary of which belt to replace next. Some of these drive belts, if broken, disable the engine (that is, the belts that drive the water pump, alternator, etc.). The drive belts can be changed using a minimum of hand tools.

  Hoses should be replaced if cracks appear on the outside, or if they feel spongy or brittle. Most radiator hoses last up to five years, provided fuel and oil spills do not remain to contaminate the hose surfaces. However, all hoses should be checked annually for signs of deterioration and be replaced if necessary.

- **Engine Oil and Filter**: The 15W40 multi-viscosity oil, recommended by the diesel engine manufacturers for all but the most severe weather conditions, can be used year round. Engine oil does, however, become contaminated from the combustion process and from condensation during normal operation. This is the reason periodic oil and filter changes are recommended by the engine manufacturer. During winter storage it is not necessary to start your engine if you have changed the oil and filter just prior to placing your coach in storage. In fact, on large diesel engines, periodic no-load idling of an engine not allowed to reach operating temperature is far more damaging to the engine than leaving it alone until you take your coach out of storage.

- **Diesel Fuel**: Unlike gasoline, diesel fuel begins to gel at approximately 10 degrees Fahrenheit. If this "gelling" or "clouding" becomes too severe it can clog your fuel filter and stop your engine. Additives are available that can be added to your fuel to prevent this problem. It is a good idea to keep your tank as full as possible to eliminate the air space in the tank that allows condensation to form. Moisture and diesel fuel don't mix. Water stops you cold if allowed to enter your engine. Country Coach diesel-powered motorcoaches are equipped with a fuel filter/water separator to stop water from entering the engine.

- **Windshield Washer**: Reservoirs should be filled with a winter pre-mix solution (20/10 or equivalent). Don't forget to run your windshield washer long enough to purge any non-winter solution from the hoses going to your wipers. This prevents freezing in the entire windshield washer system.

## Retrieval from Storage

If you prepared your motorcoach for storage properly, start-up again should be easy.

- Remove all tarpaulins and coverings. Look for any water damage.
- Inspect the outside of your coach. Look for any damage or animal nests in the wheel well areas or engine compartment.
- Install the batteries if previously removed. Refill the electrolyte solution if low and recharge batteries as required.
- Test the CO detector and verify the operation of the LP-gas detector and the smoke detector.
- Check the air pressure in the tires and inspect for damage.
- Check the engine oil, transmission fluid, and coolant levels (see the chassis section of this manual for more information). Start the engine and verify that all instruments and gauges are working properly.
- Start up all appliances and verify proper operation.
- Prepare the generator for operation by following the instructions in the manufacturer's operation manual. Start and run the generator. Check for leaks.
- Sanitize the fresh water system as per the instructions in the Plumbing Systems chapter. Fill the water tank and start up the system again. Check the monitor panel operation and verify that all levels are proper.

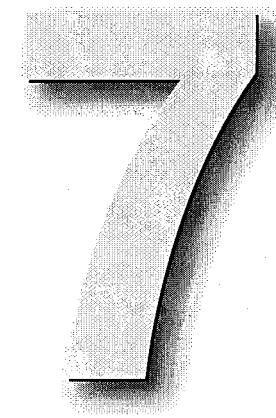
Notes:

# Warranty Guide



# Warranty Guide





# Warranty Guide



# WARRANTY GUIDELINES

These warranty guidelines provide essential information to assist you if your coach requires warranty repair. A list of recommended service providers is available at the end of the chapter.

## About Your Warranties

The Coach Information Kit provides the complete and separate warranty documents for the DynoMax chassis and the house portion of your motorcoach.

This chapter provides instructions on filling out a claim form and lists Country Coach dealers and service centers where you can obtain quality service.

For information on obtaining warranty service for individual appliances and electronic or other equipment not included in this manual, refer to the manufacturers' manuals provided in the Coach Information Kit.

Country Coach recommends that you become familiar with each feature by using this owner's guide, the sets of chassis, engine, and transmission manuals, and the individual equipment information documents, all located in the Coach Information Kit. Country Coach cannot accept liability for problems arising from failure to properly use the information provided. This manual should remain in the coach at all times so that you can become completely familiar with the coach systems and have it available if any of them require service.

We also ask you to make sure that this manual, along with all other information and manuals provided, remains with the coach if you happen to resell it. And, to maintain current information in our own files, we request that you inform Country Coach of such a resale (see "How to Notify Us" on page 14.5). If, after examining all the provided information, you still have questions, we encourage you to contact us for assistance:

| | | | |
|---|---|---|---|
| **Parts** | **(541) 998-9202** | **(800) 452-8015** | **FAX (541) 998-5161** |
| **Service** | **(541) 998-9202** | **(800) 452-8015** | **FAX (541) 998-3204** |
| **Main office** | **(541) 998-3720** | **(800) 547-8015** | **FAX (541) 998-6687** |

### Coverage Summary

This chapter presents only a summary of the coach limited warranties. For a complete statement of the warranties, refer to the warranty booklets in the Coach Information Kit. **Table 7.1** and **Table 7.2** provide coverage summaries at a glance.

**Table 7.1 — DynoMax Chassis Limited Warranty Summary**

| Coverage | Time | Mileage | Transferable |
|---|---|---|---|
| Basic Coverage Recreational Use | 24 months | Unlimited | Yes |
| Basic Coverage Business Use[1] | 6 months | Unlimited | No |
| Structural Coverage Recreational Use | 60 months | 50,000 | Yes |
| Structural Coverage Business Use[1] | 12 months | 12,000 | No |

**Table 7.2 — House/Coach Limited Warranty Summary**

| Coverage | Time | Mileage | Transferable |
|---|---|---|---|
| Basic Coverage Recreational Use | 12 months | Unlimited | Yes |
| Basic Coverage Business Use[1] | 3 months | Unlimited | No |
| Structural Coverage Recreational Use | 60 months | Unlimited | Yes |
| Structural Coverage Business Use[1] | 3 months | Unlimited | No |

[1] Rental and timeshare use is excluded

## Warranty Repair and Claims Procedure

If your Country Coach motorcoach requires repair or replacement of any parts subject to the Limited New Vehicle Warranty, the following steps must be taken to obtain the necessary repairs and to claim reimbursement where appropriate.

**Note:** The Limited New Vehicle Warranty shall not be in effect unless the Warranty Registration Card is completed and returned to Country Coach within 30 days from the date the vehicle is delivered to the first retail purchaser.

Authorization from Country Coach is required before warranty repairs begin. Direct your requests for repair authorization to a Country Coach customer service representative at (800) 452-8015.

When calling for repair authorization, be ready to provide the following information:

- **Coach Serial Number**
- **Current Mileage**
- **Owner's Name**
- **Date of Retail Purchase**
- **Nature of Service Problem**
- **Estimated Cost of Repairs**

If the part is determined to be subject to the Country Coach Limited Warranty, the customer service representative assigns an authorization number. If a warranty claim is to be submitted for the repair, this number must appear on the claim. The authorization number is valid for thirty (30) days from the date of issue. In most cases replacement parts must be ordered from Country Coach and will be shipped prepaid.

Country Coach may, at its option, request return of defective parts. In these instances, the green shipper copy that accompanies the replacement parts reads "Item must be returned within 30 days to avoid invoice."

A "Warranty Parts Return Tag" is also enclosed with the shipper. It must be filled out completely and attached to the defective part for return. Tagged defective parts, the green shipper copy, completed warranty claim form, and a copy of the repair center's work order must be returned to Country Coach within thirty (30) days. For your use, some spare tags are included in the Coach Information Kit.

The responsible party shown on the shipper is invoiced for any defective parts not returned to Country Coach within thirty (30) days from the actual ship date as shown on the green shipper.

## Notifying Country Coach

It is important that we have your current mailing information in our Country Coach customer database. As an owner of the World's Finest Motorcoach, you receive periodic mailings from the company. These include the Country Coach Destinations magazine, a quarterly recreation lifestyle publication, and various other updates as to where Country Coach motorcoaches are showing across the nation. There are also opportunities each year for Country Coach motorcoach owners and their friends to gather at company events in varied locations acrossF the nation to enjoy the recreation lifestyle. These company events include the Annual East Coast and West Coast Class Reunion rallies and pre-rallies at which complimentary limited coach service is provided to Country Coach motorcoaches in attendance. Other outstanding events include the Family Motor Coach Association rallies and The Rally (formerly known as the Great North American RV Rally). Information about attending such events is mailed throughout the year.

## How to Notify Us

Please keep Country Coach and your club, Country Coach International, apprised of your contact information. If you move, get a new phone number, email address, or if you have just recently acquired your Country Coach motorcoach, please call Country Coach immediately at (800) 654-0223 or go on-line to www.countrycoach.com/club and then click Address Change Request.

Be sure to supply your coach information as well as your personal contact information when you call or visit on-line. The Country Coach Serial Number has been stamped on the State of Oregon insignia which is mounted on the exterior adjacent to the entry door. On the interior of your motorcoach, the number appears on the top of the vanity overhead cabinet door and on the VIN plate on the passenger-side defroster vent.

# Service Providers

This listing indicates which Country Coach dealerships (noted as [Dealership]) and which independent service centers provide service. The scope of their service is noted as [House] and/or [Chassis].

## CANADA

### Alberta

Edmonton

**Advantage RV Service Centre - Edmonton**
[House] [Chassis]
16734 111 Avenue
Edmonton, AB T5M 2S5
(780) 413-4251

**Carefree Rv-Edmonton**
[Dealership]
4510-51 Avenue
Edmonton, AB T6B 2W2
(780) 438-2008

### British Columbia

Kelowna

**Westgate RV Centre - Kelowna**
[Dealership] [House] [Chassis]
1460 Byland Road
Kelowna, BC V1Z 1A7
(800) 811-1777
*Inspire, Allure, Intrigue, Magna*

## UNITED STATES

### Alaska

Anchorage

**Karen's RV Service Center**
[House]
1850 Viking Dr.
Anchorage, AK 99501
(907) 336-2055

### Arizona

Chandler

**Beaudry RV - Chandler**
[Dealership]
1576 S. Nelson Road
Chandler, AZ 85224
(888) 688-8232

Mesa

**APR, LLC Body and Paint**
2425 E. Main Street
Mesa, AZ 85213
(480) 984-5474

Phoenix

**Desert West Coach Service**
[House] [Chassis]
1243 S. 7th Street
Phoenix, AZ 85034
(602) 340-8287
(602) 340-8287 fax

Tucson

**Beaudry RV**
[Dealership] [House] [Chassis]
3200 E. Irvington Rd. 85714
Tucson, AZ 85714
(800) 860-0281 toll-free
(520) 295-4892 fax
*Inspire, Allure, Intrigue, Magna, Affinity, Prevost*

Yuma

**Dan Gamel RV - Yuma**
[House]
4425 E. 30th Place
Yuma, AZ 85365
(928) 305-9700

### California

Acampo
[House]
Lodi Truck & RV Center
19681 N. Highway 99
Acampo, CA 95220
(209) 369-1431

Anderson

**Dan Gamel RV - Redding**
[House]
3750 Auto Mall Drive
Anderson, CA 96007
(530) 378-1241

RECOMMENDED Service Centers

Bakersfield

**Cummins West - Bakersfield**
[Chassis]
4601 E. Brundage Lane
Bakersfield, CA 93307
(661) 325-9404

Colton

**Colton Truck Terminal**
[Chassis]
863 E. Valley Blvd.
Colton, CA 92324
(909) 825-4080

**McMahon RV**
[Dealership] [House]
345 West 8th Street
Colton, CA 92324
(909) 422-8970
(909) 422-8975 fax
*Inspire, Allure, Intrigue, Magna*

El Cajon

**Cummins Cal-Pacific**
[Chassis]
310 N. Johnson Ave.
El Cajon, CA 92020
(800) 993-4373

Indio

**Mike Semple Mobile RV Repair - Indio**
[House]
"Mobile Repair Only," Nov. - May in Indio
Indio, CA 92201
(541) 292-8052

Irvine

**McMahon RV - Irvine**
[Dealership] [House]
6441 Burt Road, Service Bay #15
Irvine, CA 92681
(949) 559-7534
(949) 653-6713 fax
*Inspire, Allure, Intrigue*

Livermore

**R Mechanic Service Center - Livermore**
[House] [Chassis]
5777 S. Front Road
Livermore, CA 94550
(925) 294-9645
(510) 294-4062 fax

Palm Desert

**Giant RV**
[Dealership]
77840 Varner Road
Palm Desert, CA 92211
(909)981-0441

Roseville

**Sacramento Country Coach Showcase**
[Dealership] [House] [Chassis]
8845 Washington Blvd. Suite 101
Roseville, CA 95661
(916) 782-6092
*Inspire, Allure, Intrigue, Magna, Affinity*

Sacramento

**Holt of California - Sacramento**
[Chassis]
3850 Channel Dr.
W. Sacramento, CA 95691
(916) 373-4141

San Diego

**Holland Motor Homes - San Diego**
[Dealership] [House] [Chassis]
7490 Copley Park Place
San Diego, CA 92111-1122
(800) 961-4464 toll-free
(858) 874-8484 fax
*Inspire, Allure, Intrigue, Magna, Affinity*

Santa Ana

**Premier Coach Inc - Santa Ana**
[House]
1946 E. Occidental St.
Santa Ana, CA 92705
(714) 259-7555

Stanton

**McMahon RV - Stanton**
[Dealership] [House]
12210 Beach Boulevard
Stanton, CA 90680
(866) 762-3873
*Inspire, Allure, Intrigue, Magna*

Temecula

**Temecula Valley RV**
[House]
28897 Front St.
Temecula, CA 92590
(951) 894-2347
(951) 894-2349 fax

Ventura

**Cummins Cal Pacific-Ventura**
[House] [Chassis]
3958 Transport St.
Ventura, CA 93003
(800) 881-1159

## Colorado

Lakewood

**Windish RV - Denver**
[Dealership] [House]
11225 W. 6th Avenue
Lakewood, CO 80215
(800) 748-3778 toll-free
(303) 274-9267 fax
*Inspire, Allure, Intrigue*

Louviers

**All Stars RV - Denver (South)**
[House]
5989 W. Louviers Ave.
Louviers, CO 80131
(720) 348-0404

## Florida

Ft. Pierce

**Al's Motorhomes**
[Dealership] [House]
120 Del Monte Street
Ft. Pierce, FL 32946
(888) 399-9970 toll-free
(772) 461-0492 fax
*Inspire*

Lakeland

**Central Florida Coachworks**
8321 Epicenter Blvd.
Lakeland, FL 33809
(866) 984-3801

Ocala

**Cummins Southeastern Pwr - Ocala**
[Chassis]
321 SW 52nd Ave.
Ocala, FL 34474
(888) 699-2774

Seffner

**Lazy Days RV Center**
[Dealership] [House] [Chassis]
6130 Lazy Days Blvd.
Seffner, FL 33584
(800) 282-7800 toll-free
(813) 246-4408 fax
*Inspire, Allure, Intrigue, Magna, Affinity*

Tampa

**Cummins Southeastern Pwr - Tampa**
[Chassis]
5910 E. Hillsborough Ave.
Tampa, FL 33610
(800) 338-2519

Titusville

**Eagle's Pride, Inc. - Titusville**
[House]
108-C Plantation Drive
Titusville, FL 32780
(800) 552-3555
(321) 383-0930 fax

## Georgia

College Park

**Cummins South - Atlanta**
[Chassis]
5125 Georgia Hwy 85
College Park, GA 30349
(800) 768-7278

Jackson

**Sagon RV Supercenter - Atlanta (South)**
[House]
172 Van Mar Dr.
Jackson, GA 30233
(678) 752-0009

Waynesboro

**Reeve's Custom Coaches - Waynesboro**
[House]
1700 Hwy 23 South
Waynesboro, GA 30830
(706) 437-0083

## Idaho

Idaho Falls

**Eagle Rock RV - Idaho Falls**
[House]
1910 S Yellowstone Hwy
Idaho Falls, ID 83402
(208) 523-7709

RECOMMENDED Service Centers

Meridian

**Bodily RV Center**
1580 W. Overland Rd.
Meridian, ID 83642
(800) 726-8660 toll-free
(208) 955-7045 fax

## Illinois

Rockford

**Al's Motorhomes**
[Dealership] [House]
3442 Merchandise Drive
Rockford, IL 61109
(800) 345-7003 toll-free
(815) 874-5875 fax
*Inspire, Allure, Intrigue*

**Rockford Truck Sales**
[Chassis]
4301 N. Bell School Rd.
Rockford, IL 61111
(815) 639-2040

## Indiana

Elkhart

**Onan Indiana-Elkhart**
[House] [Chassis]
5125 Beck Dr.
Elkhart, IN 46516
(800) 589-9027

Richmond

**Best Buy RVs**
[Dealership] [House]
3250 Chester Blvd.
Richmond, IN 47375
(877) 237-8787 toll-free
(765) 965-0881 fax
*Inspire, Allure, Intrigue*

## Kansas

Goddard

**Innovative Coachworks - Wichita**
[House]
1035 S. 183rd St. West
Goddard, KS 67052
(316) 794-2200

## Louisiana

Baton Rouge

**Miller's RV**
[House]
12912 Florida Blvd.
Baton Rouge, LA 70815
(225) 275-2940

Shreveport

**Camper's RV Center - Shreveport**
[Dealership] [House]
7700 W. 70th St.
Shreveport, LA 71129
(800) 426-1352
*Inspire, Allure*

## Maine

Bangor

**Freightliner of Maine - Bangor**
[Chassis]
422 Perry Rd.
Bangor, ME 04401
(207) 945-6451
(207) 947-6557

Holden

**Rec Tech (Holden "Family RV")**
[House]
128 Main Rd.
Holden, ME 04429
(207) 989-3324
(207) 989-7605 fax

## Maryland

Aberdeen

**The Motor Coach Co., LLC- Aberdeen**
[House] [Chassis]
1060 Hardees Drive, Suite A
Aberdeen, MD 21001
(410)273-2073

## Massachusetts

Middleboro

**Crossroads RV Center - Middleboro**
[Dealership] [House] [Chassis]
3 Chalet Road
Middleboro, MA 02346
(800) 784-9689 toll-free
(508) 946-9434 fax
*Inspire, Allure, Intrigue, Magna*

## Michigan

Grand Rapids

**Cummins Bridgeway - Grand Rapids**
[House] [Chassis]
7580 Expressway Dr. SW
Grand Rapids, MI 49548
(616) 281-2211

Holland

**Holland Motor Homes - Holland**
[Dealership] [House] [Chassis]
670 East 16th Street
Holland, MI 49423
(800) 221-7197 toll-free
(616) 396-1391 fax
*Inspire, Allure, Intrigue, Magna, Affinity*

Mt. Clemens

**Cummins Bridgeway - Detroit (NE)**
[Detroit NE]
[Chassis]
43575 N. Gratiot Ave.
Mt. Clemens, MI 48036
(586) 469-2010

New Hudson

**Cummins Bridgeway - New Hudson**
[Detroit West]
[Chassis]
54250 Grand River Ave.
New Hudson, MI 48165
(800) 486-4308

## Minnesota

Rogers

**Boyer Trucks - Minnesota (North)**
[Chassis]
21701 Industrial Blvd.
Rogers, MN 55374
(800) 220-8495
(612) 676-3805 fax

Winona

**Jim's Coachworks - Winona**
[House]
1269 Breezy Ln.
Winona, MN 55987
(507) 452-1294

## Mississippi

Biloxi

**Kennedy Engine Co. - Biloxi**
[Chassis]
980 Motsie Rd.
Biloxi, MS 39532
(228) 392-2200
(228) 392-9507 fax

## Missouri

Branson

**Branson Motor Coach Specialists**
[Chassis]
2652-B Shepherd of the Hills Expwy.
Branson, MO 65616
(417) 336-5935
(417) 336-5938 fax

Kansas City

**Cummins Central Power**
8201 NE Parvin Rd.
Kansas City, MO 64161
(816)414-8302

Riverside

**Premier Coach Services**
[House] [Chassis]
3423 NW Tullison Rd.
Riverside, MO 64150
(866) 426-2247

## Nevada

Las Vegas

**Las Vegas RV (formerly Wheeler's)**
[Dealership] [House] [Chassis]
13175 Las Vegas Blvd. South
Las Vegas, NV 89124
(702) 896-9000
*Inspire, Allure, Intrigue*

## New Jersey

Atlantic Highlands

**Risco, Inc. - Atlantic Highlands**
[House]
25 W. Highland Ave.
Atlantic Highlands, NJ 07716
(732) 872-7722

RECOMMENDED Service Centers

Bordentown

**Cartec Motors - Bordentown**
[Dealership]
2015 Route 206
Bordentown, NJ 08505
(800) 630-2744

## New Mexico

Albuquerque

**Cummins Rocky Mtn - Albuquerque**
[Chassis]
1921 Broadway NE
Albuquerque, NM 87102
(800) 800-3888

## North Carolina

Claremont

**Carolina Coach and Camper - Hickory**
[Dealership] [House] [Chassis]
3300 Centennial Blvd.
Claremont, NC 28610
(800) 305-9045
*Inspire, Allure, Intrigue*

Concord

**Coach Works Plus - Concord**
[House]
569 Pitts School Rd.
Concord, NC 28027
(704) 784-3506

Greensboro

**Cummins Atlantic - Greensboro**
[Chassis]
513 Preddy Blvd.
Greensboro, NC 27406
(336) 275-4531

Indian Trail

**Rowell's, Inc. - Indian Trail**
[House] [Chassis]
185 Corporate Blvd.
Indian Trail, NC 28079
(800) 383-1030

## North Dakota

Fargo

**Cummins North Power - Fargo**
[Chassis]
3801 34th Ave. SW
Fargo, ND 58104
(800) 373-2466

## Ohio

Marion

**Luxury Coach Services - Columbus (North)**
[House]
2565 Harding Hwy. East, #501
Marion, OH 43302
(740) 382-0051

Springfield

**Best Buy RVs - Springfield**
[Dealership] [House]
825 West Leffel Lane
Springfield, OH 45506
(937) 322-0527
*Inspire, Allure, Intrigue*

## Oklahoma

Big Cabin

**Cabin Diesel Services**
[Chassis]
437407 E. 320 Rd.
Big Cabin, OK 74332
(918) 783-5159

## Oregon

Coburg

**Cummins Northwest - Coburg**
[Chassis]
91201 Coburg Ind. Pkwy.
Coburg, OR 97408
(800) 777-0336

Eugene

**Carrier & Son's, Inc. RV Service**
[House] [Chassis]
29525 Airport Rd.
Eugene, OR 97402
(541) 461-1673

**Frontier RV-Eugene**
[House]
29365 Airport Rd
Eugene, OR 97402
(541)688-1319

Junction City

**Guaranty RV - Junction City**
[Dealership] [House]
Hwy 99 S.
Junction City, OR 97448
(800) 825-2333
*Inspire, Allure, Intrigue, Magna, Affinity*

## Pennsylvania

Greencastle

**Keystone RV Center - Hagerstown**
[Dealership] [House]
15799 Young Rd.
Greencastle, PA. 17225
(800) 232-3279
*Inspire, Allure, Intrigue*

Harrisburg

**Cummins Power Systems - Harrisburg**
[Chassis]
4499 Lewis Rd.
Harrisburg, PA 17111
(800) 768-7278

## Tennessee

Knoxville

**Buddy Gregg Motorhomes - Knoxville**
[Dealership] [House]
11730 Snyder Rd.
Knoxville, TN 37932
(800) 421-0031 toll-free
(865) 966-0701 fax
Inspire, Allure, Intrigue, Magna,
*Affinity, Lexa, Prevost*

**Peterbilt of Knoxville**
[Chassis]
5280 Rutledge Pike Hwy 11 W.
Knoxville, TN 37914
(800) 552-7779
(865) 633-5481 fax

Nashville

**Link Automotive - Nashville**
[Chassis]
1229 Lebanon Rd.
Nashville, TN 37210
(615) 256-3060
(615) 242-6278 fax

## Texas

Houston

**Birdland Coach Service - Houston**
[House]
5115 Rosslyn #1
Houston, TX 77018
(713) 682-6323
(713) 682-5409 fax

Katy

**Southwest RV - Houston**
[House]
27905 Katy Freeway
Katy, TX 77494
(281) 693-2800
*Inspire, Allure, Intrigue*

Lewisville

**Buddy Gregg Motorhomes - Lewisville**
[Dealership] [House] [Chassis]
1206 N. Stemmons Freeway
Lewisville, TX 75067
(877) 723-4099 toll-free
(972) 436-3151 fax
*Inspire, Allure, Intrigue, Magna,*
*Affinity, Lexa, Prevost*

## Washington

Fife

**Western Motor Coach**
[Dealership] [House]
6116 Pacific Highway E., #A
Fife, WA 98412
(253) 922-2225
(253) 922-2888 fax
*Inspire, Allure, Intrigue*

Lynnwood

**Western Motor Coach - Lynnwood**
[Dealership] [House]
19303 Highway 99
Lynnwood, WA. 98036
(800) 835-5049
*Inspire, Allure, Intrigue*

Renton

**Cummins Northwest - Renton**
[Chassis]
811 SW. Grady Way
Renton, WA 98055
(888) 963-7278
(425) 235-8202

## Wisconsin

Two Rivers

**K & L Enterprises - Manitowoc**
[House] [Chassis]
1900 A School St
Two Rivers, WI 54241
(920) 793-8455
**Service March - November Only**

RECOMMENDED Service Centers

Notes:

# Index-House



Index-House

## E



## F



## G



## H



## I

# Index-House



Index-House

## E



## F



## G



## H



## I

## K



## L



## M



## P



## R