FREQUENTLY ASKED QUESTIONS

• Can I purchase an RV directly from Highland Ridge RV?
• How often should I check my exterior seals?
• Can I perform my own recall?
• How long does it take to be reimbursed for an expense that is considered warranty repair?
• Does warranty cover a service call?
• Where is my nearest Highland Ridge RV dealer?
• Do we have internet service available in my area?
• Highland Ridge RV products are rated as four season capable, does that mean I can use it during the winter months? How cold can it get before my RV will freeze?
• I need to put Nitrogen in my tires and cannot locate a facility that is able to do that, can I fill them with compressed air?
• Can I put a hitch on my RV to tow a bass boat, a larger trailer, a motorcycle on a storage rack, etc.
• I have posted a question or comment in a forum topic. When will Highland Ridge respond to my post?
• What is Highland Ridge RV's involvement on the Open Range Owner's Forum?
• What is a Vehicle Identification Number or VIN? Where can I find the serial number of my coach?
• How can I get schematics for my Highland Ridge trailer?
• I have received a letter or heard about a product recall. What should I do?
• How does the TV Entertainment Coax System work? How do I hook up my outside satellite signal/dish?
• How can I troubleshoot and reattach the speaker wires on my AVR2500 or Coby DVD Player?
• How do I remove the TV from the Entertainment Center? How do I remove the Coby or AVR2500 DVD player from the Entertainment Center?
• I am interested in installing a generator. What does Highland Ridge recommend?
• I am interested in installing a washer/dryer in my coach. What type does Highland Ridge recommend? How do I install one?
• How do I sanitize my fresh water tank? How do I fill the fresh water tank when a city water connection is not available? What is the purpose of the valves by the water pump or water heater?
• What do I do if I have a flat tire or need to add air and NitroFill™ (Nitrogen) isn’t readily available?
• Can I download a copy of the manuals for my coach?
• How do I winterize my coach?
• The Level Alert is flashing/beeping on the Monitor Panel. What does this mean? Can I shut it off?
• I am looking at buying an Highland Ridge and I am wondering if a special option, feature, or modification is available. How do I know if my interest is possible?
• How do I obtain parts for my Highland Ridge trailer? Can I purchase parts for my trailer directly from Highland Ridge?
FAQ’s and Answers:
Q: Can I purchase an RV directly from Highland Ridge RV?
A: No, Highland Ridge is not licensed or authorized to sell retail units. Use the “FIND A DEALER” tab located above to find the dealer nearest you.

Q: How often should I check my exterior seals?
A: Exterior seals should be checked four times a year. Touch up and reseal on an as needed basis. Contact your dealer for specifics on sealants needed.

Q: Can I perform my own recall?
A: No. Detailed instructions for the proper steps to be taken for the recall are always included in the recall notice.

Q: How long does it take to be reimbursed for an expense that is considered warranty repair?
A: The normal process for reimbursement takes around 90 days.

Q: Does warranty cover a service call?
A: No, warranty does not cover a service call.

Q: Where is my nearest Highland Ridge RV dealer?
A: Highland Ridge RV has a “Find a Dealer” tab online at www.highlandridgerv.com that you can locate the nearest Highland Ridge RV dealer by entering your zip code or location.

Q: Highland Ridge RV products are rated as four season capable, does that mean I can use it during the winter months? How cold can it get before my RV will freeze?
A: It will freeze at 32° F (0° C), Yes it can be used year round but certain precautions need to be taken. Don’t run electric space heaters expecting it to prevent your RV from freezing, as they don’t circulate any heat into the enclosed underbelly.

Q: I need to put Nitrogen in my tires and cannot locate a facility that is able to do that, can I fill them with compressed air?
A: Putting air in your tires in place of Nitrogen will not harm your tires.

Q: Can I put a hitch on my RV to tow a bass boat, a larger trailer, a motorcycle on a storage rack, etc.
A: No. Some coaches can be equipped with an 1-1/4” receiver designed to carry bikes. Weight must not exceed 125 lbs. Contact your dealer for details.
Q: I have posted a question or comment in a forum topic. When will Highland Ridge respond to my post? A: Highland Ridge will try to respond to questions and comments in the Forum. However we cannot guarantee that all posts will receive a response. Highland Ridge RV does not have the personnel or resources to effectively monitor this forum on a regular basis. Furthermore, the Open Range Owner's Forum is monitored and administered by owners.

Highland Ridge would prefer that customer correspondence be done through regular channels. If you need assistance, please contact your selling dealership, as they should be a valuable resource for helping you. You may also contact Highland Ridge through our website using the “contact us” link. A member of our Customer Service team would be happy to speak with you.

Q: What is Highland Ridge Rep’s involvement on the Forum? A: Regarding the posts made by Highland Ridge Rep: the posts are strictly for information only. The posts may talk about Highland Ridge Policies and Procedures. The information posted is usually available on our website, in product brochures, in our owner’s manual, or from customer service. The posts are not intended to be a binding agreement between you and Highland Ridge. Highland Ridge Rep does not have the ability to make, interpret, or implement policy.

Occasionally, Highland Ridge Rep will post information from the manufacturer of a component used on your coach. That information has been supplied to Highland Ridge from the manufacturer. However, that information is not intended to be a binding agreement between you and the product manufacturer. The manufacturer has its own set of business practices and Highland Ridge RV cannot speak for the manufacturer.

Q: What is a Vehicle Identification Number or VIN? Where can I find the serial number of my coach?
A: The VIN is basically the serial number for your coach. It has 17 characters consisting of letters and numbers. The numbers and letters represent various information such as the manufacturer and model year of your coach. Your VIN is unique. No other trailer has the same number regardless of whether Open Range made it or another manufacturer.

You can find your VIN on the Bill of Sale from the dealer, Title or Registration for the trailer, insurance paperwork, or Highland Ridge Warranty Registration form.

Your VIN can also be found on your trailer. The VIN number will be stamped into the steel frame of the hitch on the roadside (driver’s side) of your coach. On travel trailers, it will also be on the Federal Sticker at the lower forward roadside of the coach. On fifth wheels, the Federal Sticker will be near the area where the upper deck starts on the roadside of the coach. It may also be available on a white sticker that is on the main entry door at the bottom left on the inside.

Your VIN is a very important number. When contacting your dealer, manufacturers of the component parts of your coach, or Highland Ridge RV, it is helpful to have the VIN available.

Q: How can I get schematics for my Highland Ridge trailer? A: Highland Ridge RV does not have schematics available for public distribution. If you have a technical question or concern, you should contact your selling dealership for assistance or contact Highland Ridge through our website.
Q: I have received a letter or heard about a product recall. What should I do?
A: On rare occasions, Highland Ridge or an appliance/component manufacturer may determine that a potential safety issue may exist and possibly affect the safe operation of your coach. Once an issue is identified, Highland Ridge works closely with the product manufacturer and will supply any requested information such as retail owner contact information, dealer contact information, and affected product lines and individual coach VIN’s (Vehicle Identification Number).

The product manufacturer will then contact the retail owner or dealerships having a coach with the potential issue. A letter will be sent that identifies what the issue is, how to determine if the coach actually has the issue, and what is required to correct the issue. Highland Ridge or the product manufacturer will pay for any corrective action or repair cost.

If you do not receive a letter, then no action needs to be taken. Your coach is not affected by the recall. If you receive a letter, please follow the enclosed instructions. If you should have any questions or concerns regarding a product recall, you can contact the product manufacturer or Highland Ridge for more information.

Q: How does the TV Entertainment Coax System work?
  How do I hook up my outside satellite signal/dish?
A: See Information Sheet

Q: How can I troubleshoot and reattach the speaker wires on my AVR2500 or Coby DVD Player?
A: See Information Sheet

Q: How do I remove the TV from the Entertainment Center?
  How do I remove the Coby or AVR2500 DVD player from the Entertainment Center?
A: See Information Sheet

Q: I am interested in installing a generator. What does Highland Ridge recommend?
A: See Information Sheet

Q: I am interested in installing a washer/dryer in my coach. What type does Highland Ridge recommend? How do I install one?
A: See Information Sheet

Q: How do I sanitize my fresh water tank? How do I fill the fresh water tank when a city water connection is not available? What is the purpose of the valves by the water pump or water heater?
A: See Information Sheet

Q: What do I do if I have a flat tire or need to add air and NitroFill™ (Nitrogen) isn’t readily available?
A: NitroFill™ says “If you have a “flat” tire or a situation where most or all of the nitrogen in your tire has been lost, you can also fill it with regular air if necessary, but we encourage you to visit your NitroFill™ dealer as soon as possible to have the tire(s) purged and refilled with NitroFill™ so you can continue to enjoy the benefits this product provides.”
For more information about the benefits of nitrogen filled tires and a Nitrofill dealer locator, visit the NitroFill™ official website at: http://www.nitrofill.com/. To find other locations that offer nitrogen for tires, visit The Get Nitrogen Institute at: http://www.getnitrogen.org/.

Q: Can I download a copy of the manuals for my coach?
A: Many of the manufacturers of the component parts or appliances in use on your coach have online copies of their manuals available for download. They are usually available on the manufacturer’s website. Highland Ridge currently has the current model year manual available for download on the Highland Ridge website. http://highlandridgerv.com/our-customers/downloads.php

Q: How do I winterize my coach?
A: Highland Ridge Technical Support and Service Department is currently working on this information and will be posting our Winterizing tips in the near future. In the meantime you can contact your selling dealership for proper training on how to use components of your Highland Ridge RV.

Q: The Level Alert is flashing/beeping on the Monitor Panel. What does this mean? Can I shut it off?
A: The Level Alert is part of the fluid Tank system in your coach. It does not indicate that the coach is not level. The Level Alert will sound when there is an action that needs to be taken with either your black, grey, or fresh water tank. The beeping sound can be muted but the light will continue to flash.

   If your black or grey tank is getting full, the alarm will sound to let you know that the tank in question is close to being full and needs to be emptied. The alarm will also sound, if your fresh water tank is getting empty – letting you know that you need to fill it. If you are not dry camping and are connected to city water, most likely you would not have water in your fresh water tank. To keep the alarm from sounding, you may want to put a small amount of water into your fresh water tank.

Q: I am looking at buying an Highland Ridge and I am wondering if a special option, feature, or modification is available. How do I know if my interest is possible?
A: Please contact the nearest Highland Ridge dealer. The dealership should be able to answer your question. If you need help in locating an Highland Ridge dealer, go to our Highland Ridge website, and click on the “Find a dealer” Tab. You may also contact Highland Ridge and ask to be contacted by an Highland Ridge Salesman.

Q: How do I obtain parts for my Highland Ridge trailer?
   Can I purchase parts for my trailer directly from Highland Ridge?
A: Highland Ridge is not able to sell parts directly to our customers. We do not have a way of invoicing/billing retail customers. If you are interested in purchasing a part, please contact your selling dealership or an authorized Highland Ridge dealer for assistance. To find the nearest Highland Ridge dealer, go to the Highland Ridge website and click on the “Find a Dealer” tab.
Highland Ridge TV Coax Diagrams & Instructions
TV coax system with a single coax connector in the Outside Convenience Center

Using the TV Booster & Coax Plates

When you hook up park cable to the coax connector in the outside convenience center, the signal goes to the room that has the TV booster. The signal goes through a coax plate with a jumper wire connecting the two coax jacks. The signal then goes to the TV booster where you can select either antenna signal or park cable signal. The signal leaves the TV booster on the backside through the coax connection labeled “Set 2” and goes to a splitter where the signal is sent to every TV in the coach. The TV in the room with the TV booster will receive the channels either from the splitter or it may be a coax wire (black or grey) that is connected to the coax connector on the front of the TV booster.

Each TV will have a coax plate that is receiving the signal from the TV booster being feed from the outside convenience center.

If you see a green light on the front of the TV Booster, the TV Booster is on and only the Roof Antenna signal is being sent to every TV in the coach. If the TV Booster is off, only the Park Cable or Satellite Dish signal is being sent to the rest of the coach.

Using a Satellite Receiver (see figure 5)

If you want to hook up a satellite dish and receiver, you will need to set up your dish antenna and the coax wire from the dish antenna will be connected to the coax connector in the outside convenience center. You will be able to send the satellite channel to every TV in the coach. (whatever channel is on the satellite receiver will be sent to every TV.) You will need to remove the short jumper cable that is on the twin coax plate. The signal coming in from the outside convenience center will need to go from the jack plate to the input on the satellite receiver. The output from the satellite will be connected to the other coax end not being used on the twin coax plate. That will send the signal to the TV booster and everything else will work as outlined above.

We do not have records of the coax color codes in use. Typically, we would expect that all of the coax wires would most likely be black or gray.

This Information Sheet will be updated with more detailed instructions and diagrams of the Coax Cable Entertainment System at a future date.
Highland Ridge TV Coaxial Diagrams & Instructions

Using the 4 port cable/sat connections in the outside convenience center.

Below are some of the general floor plans that are available. Select the floor plan that best represents your coach. The drawings are intended to represent how the system works. They do not show the actual physical layout of the wiring nor are they drawn to scale.

Please note that the term "Sat" does not mean Satellite in the sense that it is strictly for use with a satellite receiver and dish. "Sat" is used to indicate a location in the coach that is secondary. "Main" is the primary location. A satellite dish or park cable can be hooked up to the “Main” or any of the three of “Sat” connections.

Explanation of Diagrams – See Figures 1-4 below

Figure 1: Rear Living Room - Front Bedroom
In the outside convenience center, park cable/satellite dish hooked up to:
- “Main” will send the signal directly to the front bedroom
- “Sat 1” will send the signal directly to the living room in the rear
- “Sat 2” will send the signal directly to the outside entertainment center if the coach has one.
- “Sat 3” is not used in this coach

Figure 2: Rear Bunk House - Front Bedroom
In the outside convenience center, park cable/satellite dish hooked up to:
- “Main” will send the signal directly to the front bedroom
- “Sat 1” will send the signal directly to the living room in the rear
- “Sat 2” will send the signal directly to the outside entertainment center if the coach has one.
- “Sat 3” will send the signal directly to the living room.

Figure 3a: Rear Bedroom - Front Living Room (TV Booster in Bedroom)
In the outside convenience center, park cable/satellite dish hooked up to:
- “Main” will send the signal directly to the rear bedroom
- “Sat 1” will send the signal directly to the living room in the front
- “Sat 2” will send the signal directly to the outside entertainment center if the coach has one.
- “Sat 3” is not used in this coach.

Figure 3b: Rear Bedroom - Front Living Room (TV Booster in Living Room)
In the outside convenience center, park cable/satellite dish hooked up to:
- “Main” will send the signal directly to the living room in the front
- “Sat 1” will send the signal directly to the rear bedroom
- “Sat 2” will send the signal directly to the outside entertainment center if the coach has one.
- “Sat 3” is not used in this coach.

Figure 4: Rear Bedroom - Front Bunk House
In the outside convenience center, park cable/satellite dish hooked up to:
- “Main” will send the signal directly to the rear bedroom
- “Sat 1” will send the signal directly to the bunkhouse in the front
- “Sat 2” will send the signal directly to the outside entertainment center if the coach has one.
- “Sat 3” will send the signal directly to the living room.
Using the TV Booster & Twin Coax Plates

- If park cable/satellite is hooked up to the “Main”, the signal goes to the twin coax plate in the main bedroom.
  - The twin coax plate has a jumper wire connecting the two coax jacks.
- The signal then goes to the TV booster where you can select either roof antenna signal or park cable/satellite signal.
  - You select the signal source by pushing the black button on the TV Booster
  - If you see a green light on the front of the TV Booster, the TV Booster is on and only the roof antenna signal is being sent to every TV location in the coach.
  - If the TV Booster is off, only the park cable/satellite is being sent to every TV location in the coach.
- The signal leaves the TV booster on the backside through a coax connection labeled “Set 2” and goes to a splitter where the signal is sent to every TV location in the coach.
- Either the main bedroom TV signal will come from the splitter or it may be a coax wire (black or gray) that is connected to the coax connector on the front of the TV booster.  See Figure 5.
- Each TV location other than the main bedroom will have a coax plate with two coax ends.
  - One of the “F” connectors is for the direct signal from the outside convenience center (Sat 1, Sat 2, or Sat 3) It will be labeled “Satellite”
  - The other “F” connector is for the direct signal from the bedroom (which comes from the “Main” in the outside convenience center)

Using a Satellite Receiver - Satellite available at only one TV location

- If you want to set up a satellite dish and receiver, you can select the outside connection that will send the satellite signal to the TV location of your choice. (see above “Explanation of Diagrams”)
- The signal will go to the twin coax plate in the location that you choose.
- You will attach a coax cable to the “F” connector labeled “Satellite”.
- The other end will be attached to the “Input” of your satellite receiver.
- You will attach a different coax cable to the “Output” of your satellite receiver.
- The other end will be attached to the coax connector on your TV.
- You could also use RCA cables to connect your satellite receiver and TV. (If your satellite receiver is equipped with RCA outputs.)

Using a Satellite Receiver - Satellite available at every TV location (See Figure #5 below)

- If you attach your satellite cable to the “Main”, you will be able to watch satellite on every TV in the coach.
- Whatever channel is on the satellite receiver will be sent to every TV location.
- The satellite receiver will need to be in the room with the TV Booster. (Typically the main bedroom)
- You will need to remove the short jumper cable that is on the twin coax plate.
- You will attach a coax cable to the “F” connector labeled “Satellite”.
- The other end will be attached to the “Input” of your satellite receiver.
- You will attach a different coax cable to the “Output” of your satellite receiver.
- The other end will be attached to the other coax connector on the twin coax plate labeled “cable”.
  - If your twin coax plate is not labeled, you may have to guess which is the satellite and cable “F” connector. If your first try does not work, reverse the cable ends and try again.
- This setup will send the signal to the TV booster and everything else will work as outlined above.

Troubleshooting Tips

There are various colors of coax wire used in the system.
Knowing what color of wire is used may help in diagnosing your TV coax system if you have a problem.

Coax Color Codes - Convenience Center

- Main = Gray    Sat 2 = White (Some early models may have the color codes reversed for Sat 2 & Sat 3)
- Sat 1 = Black   Sat 3 = White with Black Tape (Tape may be missing. It would appear to be a white cable.)
Coax Color Codes - Front of TV Booster
- Cable attached to front of TV Booster = Black or Gray
  - This cable would go to the back of the coax plate for the TV in this room.
  - The coax cable that is connected to the coax plate may come from the front of the TV Booster or it could come from a splitter that is connected to the back of the TV Booster.
  - See Figure #5 below.

Coax Color Codes - Back of TV Booster
- Antenna = White
- Cable (In from Twin Coax Plate) = Orange
- Set 2 (to splitter for rest of coach) = Orange

TV Booster Removal
- Older models have a single coax “F” connector and a 12-volt jack that looks like the cigarette lighter jack in a car. It also has a small black push button and a LED light.
- Newer models have a single coax “F” connector (no 12-volt jack). It will also have a small black push button and a LED light.
- There are two screws holding it in place.
- To remove the booster from the wall, you will need to pull it up slightly and then out.
- Use caution when you remove so that you don’t accidently dislodge any wires or damage the wall when you remove the TV booster.

DVD Player Removal
- The DVD player is secured to the entertainment center with Velcro.
- Use a thin piece of metal such as a table (butter) knife or putty knife to separate the two pieces of Velcro.
- Use caution so that the tool doesn’t slip and you injure yourself or damage the entertainment center.
- Once the DVD player is loose, you can pull the DVD player out of the opening.
- Use caution when you take it out. There are many wires attached to the back of the DVD player and you do not want to pull them out of the connectors.
- Before removing any wires, take a picture of how they are hooked up or label each wire or draw a diagram of the wires. This will help you when you reconnect the wires.

TV Removal from the Entertainment Center
- To remove most TV’s, it is a simple matter of lifting the TV up and out of a wall mounted bracket. If that does not work for this TV, then try the following steps.
- At the bottom of the TV, you should see two small chains.
- The chains are connected to levers that hold the TV in a bracket.
- If you pull both chains at the same time, the levers will pull back, a catch will release, and the bottom of the TV will swing out.
- The chains may be a little hard to pull. You may have to push in or pull out on the bottom of the TV to relieve pressure on the levers. (This may be accomplished more easily with two people.)
- Lift the TV off the bracket, which is screwed to the wall. (Once again, you might want some help as the cables are short and it may be difficult to hold the TV and undo the cables.)
- To reinstall, hook the TV to the top of bracket and then let the TV slowly swing down to engage the catches at the bottom. You may have to push gently on the bottom of the TV for the catches to fully lock.

More troubleshooting tips are in progress – Open Range Technical Support will be adding to them.
Figure 1: Rear Living Room - Front Bedroom

Coax Color Codes

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<th>Description</th>
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<td>Black</td>
</tr>
<tr>
<td>WH</td>
<td>White</td>
</tr>
<tr>
<td>WH/BL</td>
<td>White with Black tape</td>
</tr>
<tr>
<td>OSC</td>
<td>Owner Supplied Cable</td>
</tr>
</tbody>
</table>

Notes:
1. Coax plate with short jumper cable
2. TV Booster
3. Coax jack plate with RCA jacks
4. Not all of the room locations may be available in all models.
5. 4-port cable connection plate is located in convenience center
Figure 2: Rear Bunkhouse - Front Bedroom

Coax Color Codes

<table>
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<tr>
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Notes:

1: Coax plate with short jumper cable
2: TV Booster
3: Coax jack plate with RCA jacks
4: Not all of the room locations may be available in all models.
5: 4-port cable connection plate is located in convenience center
Figure 3a: Rear Bedroom - Front Living Room (TV Booster in Bedroom)

Coax Color Codes

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Notes:

1: Coax plate with short jumper cable
2: TV Booster
3: Coax jack plate with RCA jacks
4: Not all of the room locations may be available in all models.
5: 4-port cable connection plate is located in convenience center
**Coax Color Codes**

- **GR** = Gray
- **WH** = White
- **OR** = Orange
- **WH/BL** = White with Black tape
- **BL** = Black
- **OSC** = Owner Supplied Cable

**Notes:**
1. Coax plate with short jumper cable
2. TV Booster
3. Coax jack plate with RCA jacks
4. Not all of the room locations may be available in all models.
5. 4-port cable connection plate is located in convenience center
Figure 4: Rear Bedroom - Front Bunkhouse

Coax Color Codes

- **GR** = Gray
- **WH** = White
- **OR** = Orange
- **WH/BL** = White with Black tape
- **BL** = Black
- **OSC** = Owner Supplied Cable

Notes:
1. Coax plate with short jumper cable
2. TV Booster
3. Coax jack plate with RCA jacks
4. Not all of the room locations may be available in all models.
5. 4-port cable connection plate is located in convenience center
Figure 5: Satellite Receiver connected to Coax Cable System

Notes:
1: Coax plate with jumper removed
2: TV Booster
3: Coax jack plate with RCA jacks
4: Not all of the room locations may be available in all models.
5: 4-port cable connection plate is located in convenience center
* This coax wire may be connected to the front of the TV Booster or it may come from the splitter. It will not come from both.

Coax Color Codes
GR = Gray  WH = White
OR = Orange  WH/BL = White with Black tape
BL = Black  OSC = Owner Supplied Cable
Colby DVD838 or AVR2500 DVD Player - Speaker Wire Troubleshooting Tips

If your Coby or AVR 2500 DVD player sound is not working correctly or if you have loose speaker wires, we have some troubleshooting tips to help you reconnect your DVD player. Our technical staff has some suggestions on how to troubleshoot and rewire the DVD speaker wires if necessary.

We do not have wiring schematics available for all of the layouts in our coaches. There have been different approaches in how the stereo wires have been connected. There may have been times when the stereo leads were piggy backed (connected in series or parallel) to another set of stereo wires. We have also used various colors of wires when connecting the speakers up. (see the below chart for common speaker wire colors)

To hook the speakers up, we suggest the following method:

1. See the speaker position drawing below. It should have the general layout of the speakers in your coach in relation to the TV.
2. If there any speaker wires that are connected together with wire nuts or a bell cap connector, separate them.
3. It may be possible for example, that the left & right front channel wires are connected together in a series or in parallel.
   a. By cutting the connector off you will be able to hook up and have separate channels.
   b. Strip the sheathing off of the wires that you have separated.
4. Turn the DVD player on and set it to any setting that would produce sound.
   a. You can even set it to radio and if there is no station programmed, you will still hear static when you hook up the wires.
5. Take a set of speaker wires and hook them up to the right front speaker connections in the back of the DVD player.
   a. See the below chart for positive & negative wire leads.
6. Notice which speaker the sound comes out of.
7. Refer to the drawing to find out which speaker location has the sound coming out of the speaker.
8. Disconnect the speaker wire and write that information in the speaker position chart below.
9. Do this for each speaker wire.
10. After you know where each speaker wire goes to, hook them up.
11. If your coach has a subwoofer installed, it may not be visible and may be in a cabinet or installed behind the TV and it may not be easily accessed.
   a. The subwoofer wires are the manufacturer wires that come from the DVD manufacturer and usually are small black & white wires.
12. If you have an outside entertainment center, do the following steps.
   a. If you have the below stereo selector switch, you can disregard this step.
   b. Make sure the switch to the outside speakers is turned on.
   c. Verify which speaker wire or wires goes to the outside. (usually it is a Blue & White wire)
   d. The outside speaker wire will also share the same space on the back of the DVD player as the inside left or right front speaker wires. (There would be two sets of wires connected to the speaker output. The inside speaker wire and the outside speaker wire)
   e. The outside speaker may only have one wire running to it and the speakers outside will then be connected in parallel together.
f. If there is only one wire running to the outside, you will have to connect the positive lead from outside into the positive of the right front speaker on the back of the DVD player. The negative lead from outside will be connected to the negative of the left front speaker on the back of the DVD player.

g. It is necessary to do this to maintain the impedance and ohms of the speakers.

13. We suggest you fill the chart out and file it with your coach information package.

<table>
<thead>
<tr>
<th>DVD Speaker Position/Wire Color</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive</strong></td>
</tr>
<tr>
<td>Black &amp; White</td>
</tr>
<tr>
<td>Blue &amp; White</td>
</tr>
<tr>
<td>Green &amp; White</td>
</tr>
<tr>
<td>Orange &amp; White</td>
</tr>
<tr>
<td>Red &amp; White</td>
</tr>
<tr>
<td>Solid Gray</td>
</tr>
<tr>
<td>Solid Red</td>
</tr>
</tbody>
</table>

**Speaker Position Diagram**

1 Left surround speaker
2 Right surround speaker
3 Left speaker (front)
4 Right speaker (front)
5 Center
6 Subwoofer - May not be visible
**Stereo Selector Switch Troubleshooting Tips**

The following instructions are for the stereo selector switch that has the round knob that you turn to select inside or outside.

The switch is wired to receive the input from the Front Left & Right Channels. The switch will allow you to send those channels either outside or inside.

If the DVD player audio is set to the 5.1 surround sound mode, then you will still have sound on the inside from the surround speakers and subwoofer even if you have the switch set to outside. The front left & right speakers on the inside wouldn’t have any sound coming out of them under this scenario but would be going to the outside.

If you wanted only to have the sound going outside and none inside, you would need to change the audio mode on the DVD player to Stereo mode and then set the stereo selector switch to outside.

**Wire color codes for the Selector Switch**

<table>
<thead>
<tr>
<th>Selector Switch wires</th>
<th>Speaker Wires</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purple/White</td>
<td>Blue/White</td>
<td>Outside Speaker</td>
</tr>
<tr>
<td>Blue</td>
<td>Orange/White</td>
<td>Input from DVD Player</td>
</tr>
<tr>
<td>Red</td>
<td>Blue/White</td>
<td>Outside Speaker</td>
</tr>
<tr>
<td>Green/White</td>
<td>Red/White</td>
<td>Inside Speaker</td>
</tr>
<tr>
<td>Orange</td>
<td>Orange/White</td>
<td>Input from DVD Player</td>
</tr>
<tr>
<td>White</td>
<td>Red/White</td>
<td>Inside Speaker</td>
</tr>
</tbody>
</table>

**Is it possible to have the TV sound go through the Coby or AVR2500 surround sound system?**

- Open Range does not have the TV audio set up to go through the surround system. It is possible to do that. You would have to do the following steps.
- It would be necessary to install a set of audio RCA style cables.
- You would connect the RCA cables into the audio output of the TV and the other end would be connected to the audio input of the DVD Player.
- When you were watching regular TV, you would have to select the auxiliary or line input on the DVD menu.
Colby DVD838 or AVR2500 DVD Player -

Other DVD Player related troubleshooting Tips

Coby or AVR 2500 DVD Player Removal

- The DVD player is secured to the entertainment center with Velcro.
- Use a thin piece of metal such as a table(butter) knife or putty knife to separate the two pieces of Velcro.
- Use caution so that the tool doesn’t slip and you injure yourself or damage the entertainment center.
- Once the DVD player is loose, you can pull the DVD player out of the opening.
- Use caution when you take it out. There are many wires attached to the back of the DVD player and you do not want to pull them out of the connectors.
- Before removing any wires, take a picture of how they are hooked up or label each wire or draw a diagram of the wires or use the speaker position chart.
- This will help you when you reconnect the wires.

TV Removal from the Entertainment Center

To remove most TV’s, it is a simple matter of lifting the TV up and out of a wall mounted bracket. If that does not work for this TV, then try the following steps.

- At the bottom of the TV, you should see two small chains.
- The chains are connected to levers that hold the TV in a bracket.
- If you pull both chains at the same time, the levers will pull back, a catch will release, and the bottom of the TV will swing out.
- The chains may be a little hard to pull. You may have to push in or pull out on the bottom of the TV to relieve pressure on the levers. (This may be accomplished more easily with two people.)
- Lift the TV off the bracket, which is screwed to the wall. (Once again, you might want some help as the cables are short and it may be difficult to hold the TV and undo the cables.)
- To reinstall, hook the TV to the top of bracket and then let the TV slowly swing down to engage the catches at the bottom. You may have to push gently on the bottom of the TV for the catches to fully lock.
Highland Ridge Generator Recommendations & Installation Tips

Highland Ridge recommends the Onan 5500, which produces 5500 watts of power.

When purchasing a generator, there are several factors you should consider. You may wish to research and see what will meet your needs. Things to consider:

**Will the generator use LP, diesel, or gasoline?**
LP generators will obviously cause you LP tanks to empty much quicker. If using a diesel or gasoline generator, you will need to be able to store extra fuel and have a method of supplying fuel to the generator by some supply system. You may want to review the manufacturer’s generator specifications regarding fuel use to help make your decision. Use of a generator will also require some new electrical wiring that would need to be installed. Your selling dealership would be able to assist you with this.

**How large of a generator do you need?**
You will want to determine exactly what 110 appliances you wish to power and how much electricity they will require. You will need to add up all of the energy requirements to determine the size of generator to purchase. Your appliance manuals should tell you how much electricity they use.

TIP: Amps x Volts = Watts (example 10 Amps x 120 Volts = 1200 Watts)

Average watt usage of common appliances (your actual appliance may vary):

<table>
<thead>
<tr>
<th>Appliance</th>
<th>Average Watts</th>
<th>Appliance</th>
<th>Average Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>15K AC</td>
<td>1500</td>
<td>Converter</td>
<td>500</td>
</tr>
<tr>
<td>13.5K AC</td>
<td>1200</td>
<td>Computer</td>
<td>170</td>
</tr>
<tr>
<td>Microwave</td>
<td>1800</td>
<td>Laptop</td>
<td>90</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>700</td>
<td>Printer</td>
<td>850</td>
</tr>
<tr>
<td>Water Heater on Electric</td>
<td>1400</td>
<td>4 Slice Toaster</td>
<td>1800</td>
</tr>
<tr>
<td>42” Television</td>
<td>170</td>
<td>2 Slice Toaster</td>
<td>900</td>
</tr>
<tr>
<td>DVD Player</td>
<td>70</td>
<td>Hair Dryer</td>
<td>1500</td>
</tr>
<tr>
<td>Satellite Receiver</td>
<td>60</td>
<td>Curling Iron</td>
<td>85</td>
</tr>
<tr>
<td>Video Game System</td>
<td>150</td>
<td>Coffee Maker</td>
<td>900</td>
</tr>
</tbody>
</table>

Many appliances require more watts when starting and then once running use less electricity. An example of this is your coach AC. A 15K AC may require up to 3500 watts of power to start running and then use an average of 1500 watts afterward. If you want to use the generator to power the AC, you would want a generator capable of producing at a minimum 3500 watts of power. Once the AC was running, a 3500-watt generator might be able to power a few other appliances.

That is why Highland Ridge recommends the Onan 5500. With the extra electricity it generates, you will be able to run the AC plus several other appliances. If you were interested in purchasing a brand other than Onan, we would recommend that your generator be capable of producing 5500 watts of power.
Are you going to be installing inside the coach or using a portable generator?
Many times a generator will be installed in the propane storage area under the upper deck on a fifth wheel. If you have the generator installed in your coach, there are some safety concerns to consider. The primary concern would be carbon monoxide emissions. It would be necessary for the generator to be installed in an airtight enclosure with exterior venting to the side of the coach. The exhaust pipe should extend one inch past the exterior of the coach and should not cross LP lines unless they were protected. The venting should be away from openings to the coach such as doors & windows and should not vent under a slide room either. Typically, it would vent to the roadside of the coach.

Warning: Incorrect installation or improper use of your generator could result in a life-threatening situation from carbon monoxide poisoning. Read your generator owner’s manual and become thoroughly familiar with the use of your generator.

Additional information
Your Highland Ridge coach may already be set up to accept a generator. Your selling dealership may have ordered it with a “generator prep”. If equipped with generator prep, your coach would have a generator cage, which is the airtight enclosure to house the generator. It would also have the exterior exhaust venting, transfer switch & electrical wiring needed to connect the generator to your coach, and possibly fuel supply system.

Note: In your electrical distribution center (breaker box), there is a breaker labeled “GEN”. This does not mean generator. The abbreviation is for “GENERAL” which means general electric circuit. The general electric circuit is separate from the GFI circuit. Typically, the general circuit will power your appliances like the refrigerator. If the refrigerator was on a GFI circuit and the GFI circuit breaker tripped, then your refrigerator would be without power, which could lead to a loss of food stored inside.
Highland Ridge Washer/Dryer Recommendations & Installation Tips

Highland Ridge recommends the following combo washer/dryer made by Splendide:

- WD2100XC - vented
- WDC7100XC - vent less

Highland Ridge does not have installation instructions available for installing a washer/dryer. We have some general information and tips that may help in the installation process. Some of the information may not apply to your coach because of differences in floor plans.

It is difficult to make a cabinet that would work with every scenario. The dimensions for the washer/dryer depend on the models used but the cabinet has a potential opening of 26.25w x 34h. The cabinet was designed with the intent that the installer would need to remove the face frame cabinet stiles for the appliance to fit inside the cabinet.

If using a vented model, the installer is responsible for locating the vent. There is no specific location designated for the placement of the vent. There will be no plumbing or electrical lines inside the exterior wall. There may be a remote possibility of a vertical upright aluminum tube used in the exterior wall frame. Please inspect the area carefully to ensure that you are confident of the vent location.

It may be necessary to remove doors or trim to get the appliances inside the room.

See the pictures to view a typical installation and exterior vent.
How do I sanitize my fresh water tank?
How do I fill the fresh water tank when a city water connection is not available?
What is the purpose of the valves by the water pump or water heater?

Outside Convenience Center with Water Valves
For coaches that have the outside convenience center with the red, blue, and black valves, follow the below steps and the picture to the right.

1. Move all of the valves to the “fill tank” position referencing the diagrams under the valves.
   - All of the valves should be pointed right.
2. Connect a siphon hose to the siphon inlet.
3. Place hose in container with fresh water or sanitizing solution.
4. Open siphon inlet valve.
5. Turn on water pump. The pump’s suction will pull the liquid into the fresh water tank.
6. After you are finished, shut the pump off, close the siphon valve, remove the siphon hose, and reset the valves back to normal operation.

Outside Convenience Center without Water Valves
For coaches without outside convenience center water valves, follow the below steps.

1. It will be necessary to locate the position of the water pump.
2. On most fifth wheels, the water pump will be located in the front storage compartment (basement).
   a. There is a dividing wall and behind the wall is the water pump.
   b. The sliding wooden panels are secured with a screw.
3. On travel trailers, the water pump location will vary.
   a. Turn on the water pump and listen.
   b. You should be able to determine where the pump is when it is running.
   c. Many times to find the pump you will have to remove an access panel.
   d. See the below examples. Your actual access location may vary.
4. Turn valve #1 a quarter turn.
   a. It will open the valve to the siphon hose.
   b. It will also close off water coming from the direction of valve #2
   c. You will turn the valve clockwise.
   d. Valve #1 is a three-way valve. See the drawing at the end. (The 3rd position is not shown /used.)
   Tip - Valve #1 (blue valve) should be in the position shown for normal operation if you are using water from the fresh tank. See “water valves” picture below.

5. Turn Valve #2 a quarter turn.
   a. It will close off the water flow from the fresh tank.
   b. It will also open the line which runs to Valve #3.
   c. You will turn the valve clockwise.
   d. Valve #2 is a two-way valve. See the drawing at the end.
   Tip - Valve #2 should be in the position shown to allow the pump to draw water from the fresh tank during normal operation. See “water valves” picture below.

6. Open Valve #3.
   a. Valve #3 is in the closed position in the picture below.
   Tip - Valve #3 should be in the closed position for normal operation.

7. Place the siphon hose in container with fresh water or sanitizing solution. See “water valves” picture below to see the siphon hose.

8. Turn on water pump. The pump’s suction will pull the liquid into the fresh water tank.

9. After you are finished, shut the pump off, reset all of the valves back to normal operation position, and close all access panels.

Tip - Winterizing your coach
Open Range will have a info sheet that more fully explains Winterizing at some time in the future.
When winterizing your coach you would set up the valves the same as above for sanitizing with the exception of Valve #3 which you would have closed. You would also want to set up the Water Heater Bypass.

Water Heater Bypass Valves

1. Valve #4 should be open for normal operation.
   a. Valve #4 is in the open position in the “water heater” picture above.
2. Valve #5 should be closed for normal operation.
   a. Valve #5 is in the closed position in the “water heater” picture above.
3. Valve #4 would be closed to bypass the water heater.
4. Valve #5 would be open to bypass the water heater.
Additional notes about sanitizing your fresh water tank and your water lines.

For your safety, you should sanitize your potable water system when your RV is new or when it has been sitting unused for a period of time.

1. Start with a nearly full fresh water tank.
2. Prepare a chlorine solution using a ¼ cup of bleach to one gallon of water.
   a. The bleach should be a 5% sodium hypochlorite solution
   b. Prepare one gallon of this solution for each 15 gallons of capacity of the tank.
   c. You may also use a commercially available product if you choose.
3. Add the sanitizing solution to the water tank by using the above instructions.
4. Reset the water valves back to normal operation.
5. Open one faucet at a time and let the sanitized water run through them for one or two minutes.
   a. You should be able to smell the chlorine.
   b. Make sure you are using the water pump and not the city water connection.
6. Completely fill the fresh water tank and let the sanitized water stand for at least three hours.
7. Completely drain your fresh water system by opening all faucets, low point drain caps, and opening the fresh water tank drain valve.
8. Close all faucets, low point drains, and the fresh water tank valve.
9. Fill water tank with fresh water.
10. Flush each faucet for several minutes each repeating until the tank is again empty.
    a. Make sure you are using the water pump and not the city water connection.
11. Fill the tank again. The water should now be safe to drink.
12. If there is still a chlorine odor or taste, you can repeat the fresh water flush.
13. You could also prepare a solution of one quart of vinegar to five gallons to remove the chlorine odor/taste.
    a. You would then follow the same steps that you used originally when adding the sanitizing solution.
    b. You should allow this solution to agitate in the tank for several days by vehicle motion when traveling.
Valve Handle Position & Water Flow Diagrams

Normal Operation

Sanitize / Fill Tank

Winterize

Turning the valve handles in the direction indicated will open or close the valves referenced with each valve handle. The arrows indicate the water flow. Valve #1 (blue handle) is a three way valve. The third position is not used. Valve 2 is a two way valve.