



*Obsessed with providing the best RV ownership experience!*

**A V E N U E**

## **OWNER'S GUIDE**

(Version: 11.2021)

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## WELCOME TO THE ALLIANCE RV FAMILY!

Congratulations on the purchase of your new Alliance RV. We are honored that you have placed your trust in the Alliance RV Team, and it is our privilege to help you enjoy a great RV ownership experience!

One of the best ways to begin enjoying your Alliance RV experience is by taking time to read and familiarize yourself with the contents of this owner's manual along with the individual component manuals included with your new Alliance RV. Knowing how to properly operate the various systems, appliances, and components will make your first trips even more enjoyable. We would also encourage you to review the general maintenance recommendations, as these will help keep your RV in great working condition for years to come.

Your new Alliance is backed by a Limited Base Warranty and Limited Structural Warranty as outlined on the following pages. While we work to build Alliance RVs to a higher quality standard, if a warranty or service concern arises, our priority is to get you back to camping as promptly as possible. Your Alliance RV Dealer is authorized and trained in servicing the many systems unique to your Alliance RV and is a great "Ally" to assist you in finding a resolution. If for any reason it is not feasible to work with your local Alliance RV dealer, please don't hesitate to reach out to the Alliance Customer Service Team directly. Our ability and willingness to keep open lines of communication and find creative service solutions will help us navigate thru finding the best way to assist your specific circumstance. The Alliance RV Customer Service Team can be reached at:

- Phone: (574) 226-0140
- Email: [service@alliancerv.com](mailto:service@alliancerv.com)
- Address: Attn: Customer Service - 301 Benchmark Drive, Elkhart, IN 46516

Thank you again for being a valued member of the Alliance family. The entire Alliance team wishes you safe travels and looks forward to enhancing your RV ownership experience!

Happy camping,

A handwritten signature in black ink that reads "Bill Martin".

Bill Martin

Vice President of Customer Experience

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**MY INFO:**

Alliance RV Model (i.e., Avenue): \_\_\_\_\_

Floorplan or Model # (i.e., 30RLS): \_\_\_\_\_

VIN (17 Digits):

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Dealership Name: \_\_\_\_\_

Dealership Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dealer Phone: \_\_\_\_\_

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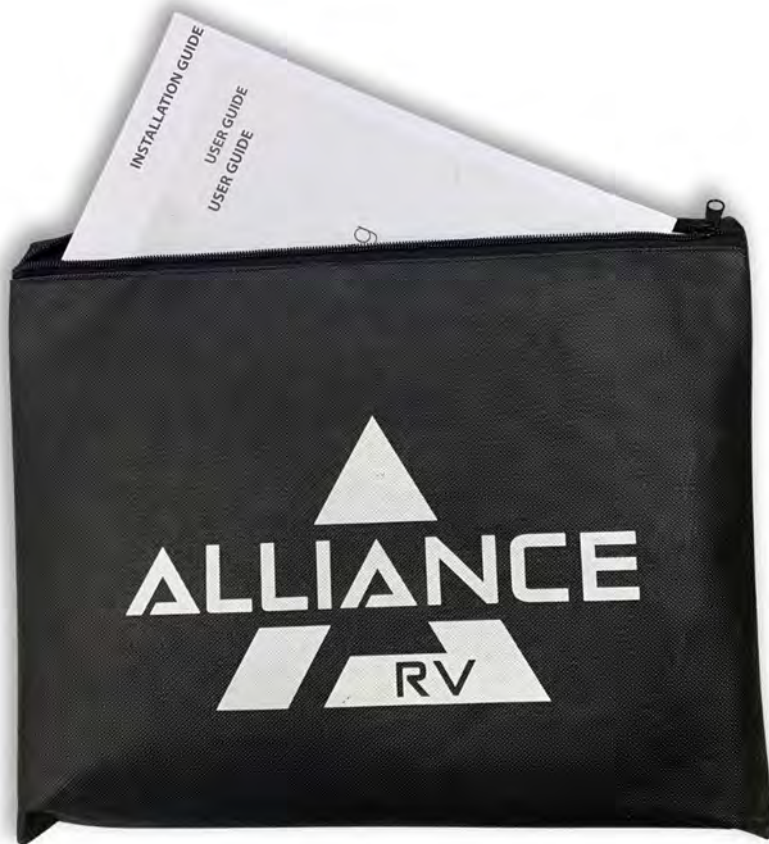
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## **OWNER'S INFORMATION BAG**

You will find the manuals and registration cards for individual components in your Alliance RV Fifth Wheel Owner's Information Bag.

It is important that you take time to register and activate each component warranty according to the information and timelines provided. Doing so will help any potential delays in the event your RV requires warranty service. Failure to register these warranties will not dismiss warranty coverage, although it could cause delays. Please contact Alliance Customer Service with any questions.



### **Alliance RV Customer Service Contact Information:**

Phone: (574) 226-0140

Email: [service@alliancerv.com](mailto:service@alliancerv.com)

## VEHICLE IDENTIFICATION NUMBER (VIN)

Alliance RV vehicles all have a unique 17-digit VIN. You will find your VIN listed on the Federal Certification label located toward the front of the RV on the off-door side. The following VIN decoder identifies each digit location and its function.

DIGIT LOCATION	FUNCTION	KEY
1st, 2nd, and 3rd	WMI (SAE Assigned)	<b>7M5</b>
4th	Trailer Type	F = Fifth Wheel X = TBD X = TBD
5th	Model Designator	P = Paradigm V = Valor A = Avenue X = TBD
6th and 7th	Length of RV	Length of RV (2 digits regardless of length)
8th	Number of Axles	1 = 1 Axle 2 = 2 Axles
9th	Check Digit	Calculated
10th	Model Year	M = 2021   T = 2026   1 = 2031   6 = 2036 N = 2022   V = 2027   2 = 2032   7 = 2037 P = 2023   W = 2028   3 = 2033   8 = 2038 R = 2024   X = 2029   4 = 2034   9 = 2039 S = 2025   Y = 2030   5 = 2035
11th	Plant Location	A = Plant 1 B = Plant 2 C = Plant 3 D = Plant 4
12th thru 17th	Serial Number	Sequential Six Digit Number (001000)



## **REPORTING SAFETY DEFECTS**

### **In the United States:**

If you believe that your recreational vehicle has a defect which could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA), and Alliance RV.

If the National Highway Traffic Safety Administration (NHTSA) receives similar complaints, they may open an investigation. If they determine that a safety defect exists in other vehicles, a recall and remedy campaign may be ordered. NHTSA does not become involved in individual cases between you, your dealer or Alliance RV.

### **To Contact NHTSA:**

Website: [www.safecar.gov](http://www.safecar.gov)  
Address: NHTSA Headquarters  
Attn: Administrator  
1200 New Jersey Avenue, SE  
Washington DC 20590  
Toll Free Vehicle Safety Hotline: 888.327.4236  
TTY: 800.424.9153

*For additional information, please refer to the NHTSA website at [www.safecar.gov](http://www.safecar.gov).*

### **In Canada:**

If you believe that your recreational vehicle has a defect which could cause a crash or cause injury or death, you should immediately inform Transportation Canada's Defect Investigations and Recalls Division, and Alliance RV.

### **To Contact Transportation Canada:**

Website: [www.tc.gc.ca](http://www.tc.gc.ca)  
Address: Transport Canada  
Defect Investigations & Recalls Division  
330 Sparks Street  
Ottawa ON K1A 0N5  
Canada  
Toll Free in Canada: 800.333.0510

If calling internationally or from the Gatineau-Ottawa area: 819.994.3328

## **SERVICE & WARRANTY**

### **Alliance RV Limited Warranties**

Alliance RV, LLC (Alliance RV) provides the following Limited Base and Limited Structural Warranties with this recreational vehicle which sets forth what Alliance RV will cover and what Alliance RV will do if a defect is found to exist. Please read the following warranty details closely before your purchase of the recreational vehicle.

**ACCEPTANCE OF WARRANTY:** When you request or accept the performance of warranty repairs under the terms of either limited warranty, you are accepting all terms of both limited warranties.

#### **ONE (1) YEAR LIMITED BASE WARRANTY**

Alliance RV provides this Limited Base Warranty for the period of One (1) Year. Warranty period starts from the earlier of (a) the date of purchase by the original retail purchaser, or, (b) if the dealer places the vehicle in service prior to retail sale, on the date the recreational vehicle is first placed in such service.

For the warranty period set forth above, this one (1) year Limited Base Warranty covers certain defects in materials and/or workmanship for the recreational vehicle manufactured by Alliance RV, and workmanship provided directly by Alliance RV, arising under normal use and service for the Limited Base Warranty period of the recreational vehicle. Alliance RV reserves the right to use new or remanufactured parts of similar quality to complete any work, and to make parts and design changes without notice to anyone. Alliance RV reserves the right to make changes in the design or material of its products without obligation to incorporate such changes in any product previously manufactured.

This Limited Base Warranty only covers a recreational vehicle sold by an authorized Alliance RV dealer and to the original retail purchaser. Note that recreational vehicles purchased in the US with the specific intent to import to Canada will NOT be covered under this Limited Base Warranty.

Alliance RV makes no warranty whatsoever with respect to the recreational vehicle beyond that contained in this Limited Base Warranty. No other person(s) are authorized by Alliance RV to establish any other obligation or liability for it regarding this recreational vehicle. Alliance RV is not responsible for any promise, representation or warranty made by any dealer or person beyond what is expressly stated in this Limited Base Warranty. No one has authority to amend or modify this Limited Base Warranty.

NOTE: This Limited One (1) Year Base Warranty is separate from the Limited Three (3) Year Structural Warranty on the following page and will expire exactly one year from the warranty period start date as identified above.

#### **LIMITATIONS, EXCLUSIONS AND DISCLAIMER OF IMPLIED WARRANTIES:**

**THE LIMITED BASE WARRANTY IS PROVIDED EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, AND IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF ALLIANCE RV. IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, IN ANY, GIVEN BY LAW, WILL BE LIMITED TO AND NOT EXTEND BEYOND THE SCOPE OF COVERAGE AND BEYOND THE DURATION OF THE ABOVE ONE-YEAR LIMITED BASE WARRANTY.**

**IN NO EVENT SHALL ALLIANCE RV BE RESPONSIBLE OR LIABLE FOR ANY LOSS OF USE, REVENUE, PROFIT, OR FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES OF ANY KIND OR NATURE THAT RESULT FROM ANY DEFECT IN THE RECREATIONAL VEHICLE REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE. THE DISCLAIMER OF CONSEQUENTIAL DAMAGES IS NOT DEPENDENT UPON THE LIMITED BASE WARRANTY FULFILLING ITS ESSENTIAL PURPOSE.**

NOTE: SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

## **SERVICE & WARRANTY (CONTINUED)**

### **THREE (3) YEAR LIMITED STRUCTURAL WARRANTY**

Alliance RV provides this Limited Structural Warranty for the period of Three (3) Years. Warranty period starts from the earlier of (a) the date of purchase by the original retail purchaser, or, (b) if the dealer places the vehicle in service prior to retail sale, on the date the recreational vehicle is first placed in such service.

For the warranty period set forth above, this three (3) year Limited Structural Warranty covers certain defects in materials and/or workmanship of the “**structural components**” (as defined below) portions of the recreational vehicle manufactured by Alliance RV, and workmanship provided directly by Alliance RV, arising under normal use and service for the Limited Structural Warranty period of the recreational vehicle. Alliance RV reserves the right to use new or remanufactured parts of similar quality to complete any work, and to make parts and design changes without notice to anyone. Alliance RV reserves the right to make changes in the design or material of its products without obligation to incorporate such changes in any product previously manufactured.

“**Structural components**” is defined as (i) main steel frame including outriggers and cross members; (ii) laminated side walls and rear wall assembly; (iii) slide room box assembly including sidewall, end walls, roof and floor; (iv) roofassembly; (v) floor assembly; and (vi) fiberglass cap including paint application (this structural warranty item does not cover damages to the cap such as rock chips, dents, scratches or failure to meet the maintenance requirements as outlined in the Owner’s manual).

This Limited Structural Warranty only covers a recreational vehicle sold by an authorized Alliance RV dealer and to the original retail purchaser. Note that recreational vehicles purchased in the US with the specific intent to import to Canada will NOT be covered under this Limited Structural Warranty.

Alliance RV makes no warranty whatsoever with respect to the recreational vehicle beyond that contained in this Limited Structural Warranty. No other person(s) are authorized by Alliance RV to establish any other obligation or liability for it regarding this recreational vehicle. Alliance RV is not responsible for any promise, representation or warranty made by any dealer or person beyond what is expressly stated in this Limited Structural Warranty. No one has authority to amend or modify this Limited Structural Warranty.

NOTE: This Limited Three (3) Year Structural Warranty is separate from the Limited One (1) Year Base Warranty on the previous page and will expire exactly three years from the warranty period start date as identified above.

#### **LIMITATIONS, EXCLUSIONS AND DISCLAIMER OF IMPLIED WARRANTIES:**

**THE LIMITED STRUCTURAL WARRANTY IS PROVIDED EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, AND IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF ALLIANCE RV. IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, IN ANY, GIVEN BY LAW, WILL BE LIMITED TO AND NOT EXTEND BEYOND THE SCOPE OF COVERAGE AND BEYOND THE DURATION OF THE ABOVE ONE-YEAR LIMITED BASE WARRANTY.**

**IN NO EVENT SHALL ALLIANCE RV BE RESPONSIBLE OR LIABLE FOR ANY LOSS OF USE, REVENUE, PROFIT, OR FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES OF ANY KIND OR NATURE THAT RESULT FROM ANY DEFECT IN THE RECREATIONAL VEHICLE REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE. THE DISCLAIMER OF CONSEQUENTIAL DAMAGES IS NOT DEPENDENT UPON THE LIMITED BASE WARRANTY FULFILLING ITS ESSENTIAL PURPOSE.**

NOTE: SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

## **SERVICE & WARRANTY (CONTINUED)**

### **OBTAINING SERVICE**

For a defect to be covered under either limited warranty, the repair or replacement must occur at an independent authorized Alliance RV dealer, or Alliance RV designated repair shop or Alliance RV facilities. Alliance RV will remedy defects in materials and workmanship covered under the Limited Base Warranty or Limited Structural Warranty, under normal use and service, caused by Alliance RV in the recreational vehicle itself only.

To obtain warranty service the original retail purchaser must do the following:

1. Within twenty (20) days of discovery of any defect to be covered by this warranty, notify an independent, authorized Alliance RV dealer or Alliance RV. Warranty services can only be obtained through Alliance RV authorized dealers and service representatives.
2. Following notification, the recreational vehicle must be taken to an independent, authorized Alliance RV dealer, or if authorized by Alliance RV, a designated repair shop. Either that dealer or repair shop, or Alliance RV will undertake appropriate corrective repair actions in instances where the defect is covered by this warranty. All costs incurred in transporting this recreational vehicle for warranty service shall be borne by purchaser unless otherwise approved in advance by Alliance RV.

If assistance is needed, you may contact Alliance RV at:

- Email: [service@alliancerv.com](mailto:service@alliancerv.com)
- Phone: (574) 226 0140
- Mail: 301 Benchmark Drive, Elkhart, IN 46516 (Attn: Customer Service)

### **REPAIR REMEDY; EXCLUSIVE REMEDY**

Alliance RV's obligation is to address, within industry standards, any covered substantial defect discovered and reported within the warranty period provided: (a) you notify an authorized dealer within 20 days of your discovery of the substantial defect: AND (b) you deliver the recreational vehicle to an authorized dealership or Alliance RV at your cost and expense. If this primary remedy fails to successfully cure any substantial defect after a reasonable number of repair attempts, your sole and exclusive remedy shall be to have Alliance RV pay an independent service shop to perform repairs to the defect. If the defect is still incapable of being repaired, Alliance RV may, at its option, provide you the diminished value damages (the difference in purchase price and actual value of your recreational vehicle on the date of purchase). You must exhaust the primary repair remedy and this back-up remedy, and both these remedies must fail of their essential purpose before initiating any action against Alliance RV.

## **SERVICE & WARRANTY (CONTINUED)**

### **WARRANTY EXCLUSIONS**

The Limited Base and Limited Structural Warranties noted above will not cover and will not apply to:

- Routine maintenance and adjustments;
- Any deterioration due to normal wear and tear;
- Defects in labor, materials, components, or parts not manufactured or performed by Alliance RV;
- Modifications or alterations to the original design after the recreational vehicle leaves possession of Alliance RV;
- Damage caused by unauthorized attachments, modifications, or alterations;
- Equipment or accessories installed by any party other than Alliance RV;
- Materials, components, appliances, electronics, or parts which are warranted separately by the respective component manufacturer;
- Recreational vehicles used for purposes other than recreational travel and camping (By way of example only business, rental commercial or disaster relief purposes);
- Any recreational vehicle purchased in the United States with specific intent to import vehicle to Canada;
- Any recreational vehicle registered or primarily used outside the United States or Canada;
- Any water leaks or related significant damages that are a result of your failure to properly maintain the exterior seals as required in the Owner's Manual;
- Repairs or replacements made necessary as a result of your failure to follow ordinary maintenance procedures as recommended by Alliance or the manufacturer or dealer of the recreational vehicle;
- Rust or corrosion due to the environment;
- Damage caused by misuse, abuse, neglect, theft, or vandalism;
- Damage caused by improper stowing of equipment, overloading or improper load balancing;
- Damage caused by unprotected electrical hookups or power surges;
- Damage caused by extreme weather conditions such as extreme cold or heat, winds, rain, lightning, hail, ice, and flooding;
- Damage caused by unauthorized repair or failure to follow instructions supplied with the recreational vehicle;
- Damage caused by the tow vehicle by the owner, owner's operation or use of the tow vehicle, improper selection, or installation of towing hitch on tow vehicle, or damage to the owner's tow vehicle;
- Damage caused by road conditions, applications of salt or de-icing chemicals, gravel, sand, potholes, etc.;

## **SERVICE & WARRANTY (CONTINUED)**

### **WARRANTY EXCLUSIONS (CONTINUED)**

- Fading, yellowing, or aging of exterior materials and components due to exposure of UV or sunlight, or weather;
- Damage caused in-transit to or from a dealer, or to or from the consumer, or by the consumer or another;
- Recreational vehicles not originally purchased through an authorized Alliance RV dealer

### **EVENTS DISCHARGING ALLIANCE RV FROM OBLIGATION UNDER WARRANTY**

Certain things completely discharge Alliance RV from any obligation under these warranties. By way of example, the following shall discharge Alliance RV from any express or implied warranty obligation to repair or replace any defect that results from: misuse or negligent use, abuse, or accident, neglect, unauthorized alteration, failure to provide reasonable and necessary maintenance including reasonable periodic inspections of the recreational vehicle, use of the recreational vehicle for rental, business or commercial use or any other use other than to use the recreational vehicle only for recreational and personal use.

### **WARRANTY REGISTRATIONS**

The selling dealer will assist you in completing and submitting the Alliance RV product warranty registration form. That form must be returned to Alliance RV within ten (10) days of your taking delivery of the recreational vehicle. Failure to file this warranty registration with Alliance RV will not affect your rights under the Limited Base or Limited Structural warranties as long as you can present proof of purchase, but it can cause delays in obtaining the benefits of these Limited Warranties and may inhibit any servicing facility's ability to provide proper repairs and/or part replacement.

As stated above, some components, accessories or equipment are not covered by these Limited Warranties. By way of example, the following have coverage that may be provided by the component manufacturer: tires, batteries, generators, and some appliances & electronics and entertainment equipment. These component manufacturer warranties are separate from this Limited Base Warranty, and in some cases may be longer and/or have specific coverage provisions and requirements. In order to activate these warranties, you may have to complete registration forms, post cards or some other form of notification to the component manufacturer within a specific time period. These forms and documents will be located with the Owner's Materials packet provided with your new vehicle. You must complete and submit them to the respective manufacturer as quickly as possible, and within the time periods required by those warranties.

## **SERVICE & WARRANTY (CONTINUED)**

### **CARE AND MAINTENANCE**

The owner of the recreational vehicle is responsible to perform proper care and maintenance of the recreational vehicle as outlined in the Alliance RV Owner's Manual and the owner's manuals of the chassis and other component part manufacturers. Failure to maintain the RV as noted in those manuals voids these warranties, and any damage to the RV as a result of your failure to perform such care, is not covered by the warranties set forth above.

### **LEGAL REMEDIES**

**ANY ACTION TO ENFORCE ANY PORTION OF THIS LIMITED BASE OR STRUCTURAL WARRANTIES, OR ANY IMPLIED WARRANTY, MUST BE COMMENCED WITHIN NINETY (90) DAYS AFTER THE EXPIRATION OF THE APPLICABLE WARRANTY COVERAGE PERIOD. ANY PERFORMANCE OF REPAIRS WILL NOT SUSPEND THIS LIMITATION PERIOD FROM EXPIRING, UNLESS STATE LAW PROVIDES OTHERWISE. ANY PERFORMANCE OF REPAIRS AFTER THE APPLICABLE WARRANTY COVERAGE PERIOD HAS EXPIRED, OR PERFORMANCE OF REPAIRS REGARDING ANYTHING EXCLUDED FROM COVERAGE UNDER THIS LIMITED WARRANTY SHALL BE CONSIDERED "GOOD WILL" REPAIRS, AND THEY WILL NOT CHANGE THE EXPRESS TERMS OF THIS LIMITED WARRANTY OR EXTEND THE WARRANTY COVERAGE PERIOD.**

**EXCLUSIVE JURISDICTION FOR DECIDING LEGAL DISPUTES RELATING TO ALLEGED BREACH OF WARRANTY OR REPRESENTATIONS OF ANY NATURE MUST BE FILED IN THE COURTS WITHIN THE STATE OF MANUFACTURE. THE ABOVE LIMITED WARRANTIES WILL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF INDIANA, WITHOUT GIVING EFFECT TO ANY CHOICE OR CONFLICT OF LAW PROVISION OR RULE (WHETHER OF THE STATE OF INDIANA OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE APPLICATION OF THE LAWS OF ANY JURISDICTION OTHER THAN THOSE OF THE STATE OF INDIANA. ANY AND ALL CLAIMS, CONTROVERSIES, AND CAUSES OF ACTION ARISING OUT OF OR RELATING TO THE ABOVE LIMITED WARRANTIES, WHETHER SOUNDING IN CONTRACT, TORT OR STATUTE, WILL BE GOVERNED BY THE LAWS OF THE STATE OF INDIANA, INCLUDING ITS STATUTE OF LIMITATIONS, WITHOUT GIVING EFFECT TO ANY CHOICE OR CONFLICT OF LAW PROVISION OR RULE (WHETHER OF THE STATE OF INDIANA OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE APPLICATION OF THE LAWS OF ANY JURISDICTION OTHER THAN THOSE OF THE STATE OF INDIANA.**

THE LIMITED BASE WARRANTY AND LIMITED STRUCTURAL WARRANTY GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

## **SAFETY PRECAUTIONS**

Throughout this manual, you will find the symbols shown below. This information is provided to help you avoid personal injury or death as well as damage to your RV and other property. Take the time to review all these warnings.

### **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



## WEIGHT RATINGS, ASSOCIATED LABELS, LOADING AND WEIGHING

### Weight Terms

#### **WARNING**

**PLEASE READ AND UNDERSTAND THE MANY SAFETY LABELS THROUGHOUT YOUR RV, FAILURE TO DO SO COULD RESULT PROPERTY DAMAGE, DEATH OR SERIOUS INJURY**

Knowing and understand the following weight terms are a crucial step to overall safety of your RV. By becoming familiar with this information, you will be better equipped in making decisions when using your Alliance RV product.

**GAWR** = Gross Axle Weight Rating and is the maximum weight the recreational vehicles axle(s) are rated for.

**GVWR** = Gross Vehicle Weight Rating and is the maximum operating weight the vehicle is rated for when fully loaded.

**UVW** = Unloaded Vehicle Weight and is the weight of the manufactured completed RV.

**CCC** = Cargo Carrying Capacity and is the difference between what the RV weighs when there is nothing in it and what it weighs when you have loaded it with your personal belongings, also including but not limited to food, water, propane, and any upgrades added (i.e., *solar power, washer/dryer, additional batteries etc.*)

**HITCH WEIGHT** = The weight of the trailer that is on the hitch of the tow vehicle when attached.

#### **WARNING**

**NEVER EXCEED ANY OF THE DESIGNATED WEIGHT RATINGS, DOING SO COULD RESULT IN DEATH OR SERIOUS INJURY**

#### **WARNING**

**FACTORY INSTALLED WEIGHT LABELS ARE SPECIFIC TO YOUR RV, NEVER REMOVE OR MODIFY THESE LABELS. IF YOU HAVE A MISSING LABEL, CONTACT YOUR DEALER OR ALLIANCE RV FOR ASSISTANCE**

## WEIGHT RATINGS, ASSOCIATED LABELS, LOADING AND WEIGHING (CONTINUED)


### Federal Certification

This label verifies that your RV is compliant with all Vehicle Safety Standards. You will find this label near the front of your RV on the off-door side near the cabover.

MFD BY: USA TRAILER MANUFACTURERS, CO. DATE OF MFG: 03/09				GVWR: 8,164 KG (18,000 LB)	
FRONT GAWR	WITH TIRES	RIMS AT	COLD		
4,354 KG (9,600 LB)	11R17.5HC(H)	17.5X8.25HC	827 KPA (120PSI)	SINGLE	
REAR GAWR	WITH TIRES	RIMS AT	COLD		
4,354 KG (9,600 LB)	11R17.5HC(H)	17.5X8.25HC	827 KPA (120 PSI)	SINGLE	
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.					
VIN: XXXXXXXXXXXXXXXXX				TYPE: TRAILER	

### Tire and Loading Information

This label houses information regarding the correct tire pressure for the vehicle and will also tell you the size of the tires and the CCC of the RV. This label is also located near the front of the RV on the off-door side near the cabover.

 <b>TIRE AND LOADING INFORMATION</b>			
The weight of cargo should never exceed XXXX Kg or XXXX Lbs.			
TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	
REAR	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	
SPARE	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	

### Cargo Capacities & Weighing Your RV

Weight and balance of your RV is crucial to your safety. To ensure that you are within all the established weight limits and ratings, you should have your RV weighed.

Always make sure that your RV is loaded evenly from side to side, never exceeding the specified weight ratings established for your RV. Always secure loose items and ensure that all factory provided securements are in place before you travel.

#### **⚠ WARNING**

**A LOAD THAT IS NOT PROPERLY DISTRIBUTED, REGARDLESS OF WEIGHT RATINGS, CAN HAVE AN ADVERSE EFFECT ON THE WAY THE RV PULLS**

## [WEIGHT RATINGS, ASSOCIATED LABELS, LOADING AND WEIGHING \(CONTINUED\)](#)

### Cargo Capacities & Weighing your RV (Continued)

#### **WARNING**

THE TOTAL WEIGHT OF THE RV AND THE TOW VEHICLE TOGETHER SHOULD NEVER EXCEED THE GCWR OF THE TOW VEHICLE.

#### **WARNING**

YOU MAY NOT ALWAYS BE ABLE TO USE ALL AVAILABLE STORAGE SPACE WHEN LOADING YOUR RV. JUST BECAUSE IT CAN FIT DOESN'T MEAN THAT YOUR RV IS WITHIN THE ESTABLISHED WEIGHT RATINGS.

**NOTE:** Full LP gas and Fresh water are considered cargo weight.

## TIRE INFORMATION & SAFETY

### Tire Introduction

Your tires are the only part of the RV that has direct contact with the road. Tires directly affect the handling, braking and safety of your RV. Tires must have correct air pressure, tread depth and balance.

Check your tires regularly, this is crucial to your safety. Ideally, tires should be inspected monthly. If you drive over potholes, debris or live in a cold climate or even regularly pull your RV, a more frequent inspection is suggested. The more often you inspect, the easier it is to catch small problems and get them fixed before it becomes a more expensive and potentially time-consuming problem.

Look for this during inspection:

- **Over Inflation** – Too much air causing the tires middle section to contact the road. This will create wear in the center of the tire.
- **Under Inflation** – Too little air pressure causes the outer edges to contact the road. This will create wear on the outside edges of the tire tread.
- **Tread Wear on one Edge of the Tire** – This typically indicates that something is out of alignment.
- **Erratic Tread Wear** – Often called cupping and can mean the wheel is out of balance or an issue with suspension components.



**ALWAYS KEEP TIRES PROPERLY INFLATED. NOT DOING SO CAN RESULT IN TIRE FAILURE THAT COULD RESULT IN AN ACCIDENT.**

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies characteristics of the tire and provides a tire ID number for safety standard certification and in case of a recall.

### DOT Tire Identification Number

- This begins with the letters “DOT” and indicate the tire meets all federal standards. The following two digits are the plant code where the tire was manufactured. The last four numbers represent the week and year the tire was built. The other numbers have interchangeable meanings that are used at the tire manufacturers discretion. This # is also important in the event of a tire recall and used for that purpose.

## **TIRE INFORMATION & SAFETY (CONTINUED)**

### **Tire Pressure**

- Follow the tire manufacturer's inflation guidelines for maximum load capacity; under-inflation is just as dangerous as over-inflation. Proper inflation should be monitored closely. Failure to do so can result in the overheating of a tire causing a blowout. Inflation pressure should be as recommended by the tire manufacturer or as the federal label for the recreational vehicle indicates.
- When you are using your RV, check inflation pressure weekly. Pressure should be checked when the tires are cold. Tires are considered cold when the vehicle has not been moved for a period of 3 hours or more. During travel, tires heat up and pressure increases. Do NOT adjust tires when they are hot.
- Check your tire pressures at least once a month. Tires can lose air suddenly from road hazards. Tires also naturally lose air, and it is not always possible to determine under-inflation by visual inspection. Locate the recommended tire pressure, locate the Tire and Loading Information label for accurate settings. If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get the correct pressure. If the pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add. At a service station, add the missing pounds of air pressure to each tire that is underinflated. Check all the tires to make sure they have the same air pressure.
- If you have been driving your vehicle and think a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturers recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, do not forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

#### **⚠ WARNING**

**TIRE PRESSURE SHOULD BE CHECKED AT THE BEGINNING OF A TRIP. ALWAYS FOLLOW ALL INSTRUCTIONS ON THE FEDERAL CERTIFICATION LABEL FOR ESTABLISHED REQUIREMENTS.**

#### **⚠ WARNING**

**NEVER ADJUST TIRE PRESSURE TO A "HOT" OR "WARM" TIRE. ADJUSTMENTS ARE ONLY TO BE MADE AFTER THE TIRE HAS BEEN AT REST FOR 3 OR MORE HOURS.**

## [TIRE INFORMATION & SAFETY \(CONTINUED\)](#)

### Tire Size

- The Avenue uses a very robust Load Range F ST235/85R16 tire. Only purchase new tires that are the same size as the vehicle's original tires. Look at the tire information label or the sidewall of the tire you are replacing to find the information. If you have any questions, please contact Alliance RV.

### Changing a Tire

- Keep the recreational vehicle attached to the tow vehicle. Block the tire on the opposite side of the recreational vehicle from the tire you are changing.
- Loosen the wheel lug on the tire you are changing before jacking up the vehicle.  
**(Note: DO NOT remove the lug nuts)**
- Locate the mainframe rail of the trailer (it spans from front-to-back just inside the tires).
- To raise the recreational vehicle, place the jack (hydraulic or screw) under the main frame rail. It must be just ahead of the front tire or just behind the rear tire.

#### **WARNING**

**NEVER USE THE LEVELING SYSTEM TO CHANGE A TIRE.**

**NEVER RAISE THE RV BY PLACING A JACK UNDER THE AXLE, AXLE SPRINGS OR ANY ATTACHED PARTS.**

#### **WARNING**

**BE SURE TO REPLACE TIRES WITH A TIRE OF THE SAME SIZE AND SPECIFICATION.**

Properly maintained tires improve the stopping, traction and load-carrying capability of the RV. Underinflated tires and overloaded vehicles are a major cause of tire failure. Always maintain your tires as outlined and make sure to NEVER exceed a vehicle's load limits.

### Spare Tire Carrier

A cable hoist is used for storing your spare tire under the RV. You will find the spare tire up against the underbelly of the coach towards the rear of the RV. An access hole in the skirt metal is provided for the spare tire crank handle to be inserted in order to lower or raise the spare tire hoist.

## [TIRE INFORMATION & SAFETY \(CONTINUED\)](#)

### Wheel Nut Torque

Always use a calibrated torque wrench to confirm proper torque. Check the lug nut torque on each wheel before departure. Do NOT under torque or over torque under any circumstance. Tighten all lug nuts in the correct order according to your RVs lug pattern.

#### **⚠ WARNING**

**ALWAYS TORQUE THE WHEEL LUG NUTS TO THE REQUIRED SPECIFICATIONS.**

### Wheel Lug Nut Torque Chart

LUG NUT	STUD DIAMETER	RIM SIZE	RIM TYPE	ACCEPTABLE TORQUE RANGE
6	1/2"	16"	Steel/Aluminum	90-120 ft./lbs.

Lug nuts should be torqued in the pattern shown below:



## **TOWING & LEVELING**

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- When pulling an RV, the most obvious thing is sheer mass. You will be taller, wider, and much heavier. Allow yourself plenty of room and time to maneuver out of potentially difficult situations.
- Being taller, RVs are more susceptible to sway caused by cross winds and turbulence created by other large passing vehicles. Having the correct hitch equipment that is adjusted properly can significantly reduce these effects.
- Know the height of your RV. This will help in avoiding overhead obstructions such as tree branches, low building overhangs and low clearance bridges or overpasses.
- Know the width of your RV. This is important when negotiating, turns and other obstructions. Extendable side mirrors and/or add on tow mirrors can help.
- Know how much your RV weighs and be aware of the weight ratings of the RV. This information is available for your safety. It is critical to never overload your RV. Overloading adversely affect the towing and handling of your RV. Stay within the weight ratings and limits of your RV.
- A tow vehicle and RV weigh a lot and can take longer to stop. Increase your following distance and give yourself plenty of room and time to stop.
- Practice makes perfect. Get a feel for how the RV tows and handles. Especially if you are new to RVs.



## **BRAKE SYSTEMS**

### **Brake Controller**

The brake controller should be installed in the tow vehicle to work in conjunction with the RV brakes. Consult with your dealer or brake controller manufacturer to decide what is the right towing combination.

### **Inspecting Your Brakes**



**FAILURE TO KEEP YOUR BRAKES IN PROPER WORKING CONDITION AS OUTLINED CAN CAUSE PROPERTY DAMAGE, SERIOUS INJURY OR DEATH.**

Inspect for leaks and smooth operation. Clean with brake cleaner and flush with brake fluid. Check for cracks, kinks, or blockages. Bleed the system to remove all air.

A simple visual inspection of your brake linings will tell you that they are usable. Replacement is necessary if the lining is worn to within 1/16" or less, or if found to be contaminated with grease, oil, or scored or gouged. Hairline heat cracks are normal in bonded linings and should not be cause for concern. When replacement is necessary, it is important to replace both shoes on each brake and both brakes on the same axle. This will help retain the balance of your brakes.

Check all hardware. Check shoe return spring, hold down springs, and adjust springs for stretch or wear and have replaced as required.

After replacement of brakes shoes and linings, the brakes must be re-burnished to seat in the new components. This should be done by applying the brakes 20 to 30 times from an initial speed of 40mph. Slowing the vehicle to 20mph. Allow time for brakes to cool between applications. This procedure allows the brake shoes to seat into the drum surface.

## **BRAKE SYSTEMS (CONTINUED)**

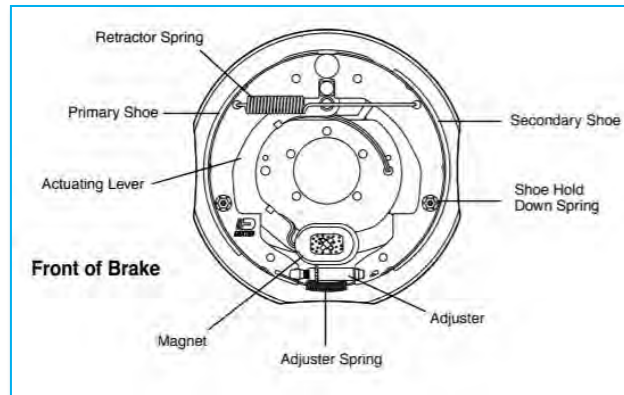
### **Electric Drum Brakes**

The electric drum brakes on your RV are similar to the drum brakes on an automobile. The basic difference is that your automotive brakes are actuated by hydraulic pressure while your electric trailer brakes are actuated by an electromagnet.

Electrical current is fed into the system by the controller, it flows through the electromagnets in the brakes. The electromagnets are energized and become magnetically attracted to the rotating armature surface of the drums which moves the actuating levers in the direction that the drums are turning.

This force causes the actuating cam block at the shoe end of the lever to push the primary shoe out against the inside surface of the brake drum. The force generated by the primary shoe acting through the adjuster, moves the secondary shoe out into contact with the brake drum.

Increasing the current flow to the electromagnet causes the magnet to grip the armature surface of the brake more firmly. This results in increasing the pressure against the shoes and brake drums until the desired stop is accomplished.

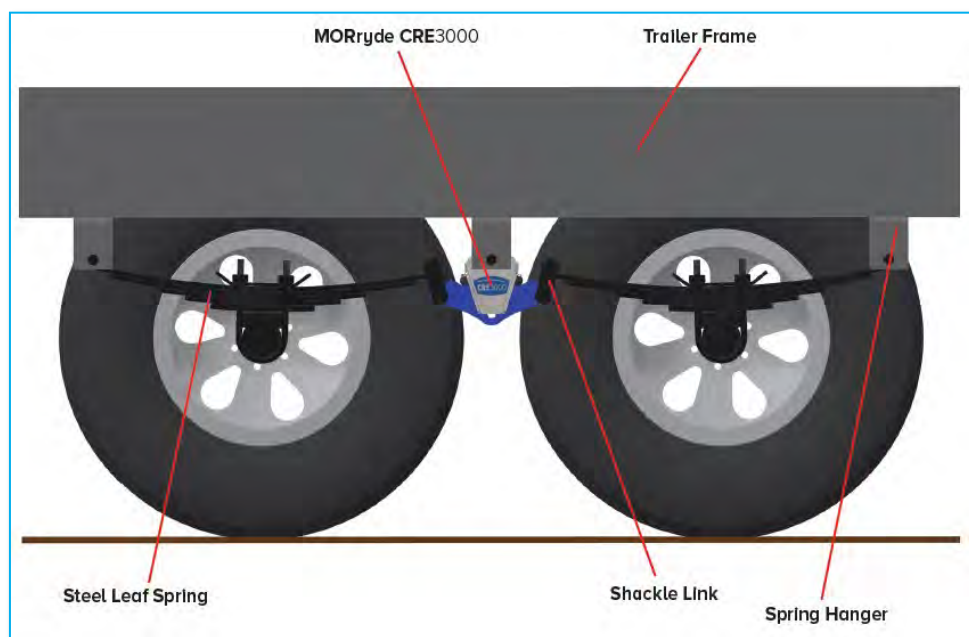


## SUSPENSION EQUALIZER SYSTEM

### Introduction

Equipped with dual 6,000 lb. Dexter Axles, a MORryde CRE3000 Suspension System and upgraded Wet Bolt Kit w/ heavy duty shackle links, you will find that this set up will give you smoother towing than a conventional equalizer and leaf springs and better protection of your RV from damaging road shock.

The CRE3000 is located between the tandem axles, replacing the steel equalizer (see below). Designed uniquely to work with your steel leaf spring suspension to improve overall towing performance.



### CRE3000 Parts Breakout:

- 1) Equalizer Beam
- 2) Rubber Compression Spring
- 3) Spring Carrier
- 4) Plastic Glide Pad
- 5) Bronze Bushing
- 6) Hex Coupler Nut
- 7) Washer
- 8) Bolt
- 9) Control Beam



## SUSPENSION EQUALIZER SYSTEM (CONTINUED)

### CRE3000 Rubber Shear Spring Inspection

The rubber springs should be periodically inspected for deterioration. If the tabs that protrude from either side of the spring carrier are touching the top of the beam arm, the spring rate of the spring has been affected and the equalizer should be replaced. **NOTE:** It is normal to see rubber spring weather checking, which is small surface cracks in the rubber, and does not require replacement. It is also common to see minor tearing or cracking of the rubber around the edges.



### HD Shackle Links and Wet Bolt Kit



The axles and suspension systems are installed with heavy duty shackle links and greaseable “wet” bolts with bronze bushings for enhanced durability and less maintenance.

## **BREAKAWAY SWITCH**

The breakaway switch is a critical safety component of the RV brake system. You will find this located on or near the fifth wheel pin box, if the fifth wheel and the tow vehicle become separated during towing, the line will pull the plunger out and immediately activate the trailers brakes. Always make sure your breakaway switch is in working order. To test your breakaway switch, while the RV is still hitched to the tow vehicle, disconnect the tow plug from the vehicle and then pull the breakaway pin out, only to the first stage, and you should hear the brakes engage.

### **⚠ CAUTION**

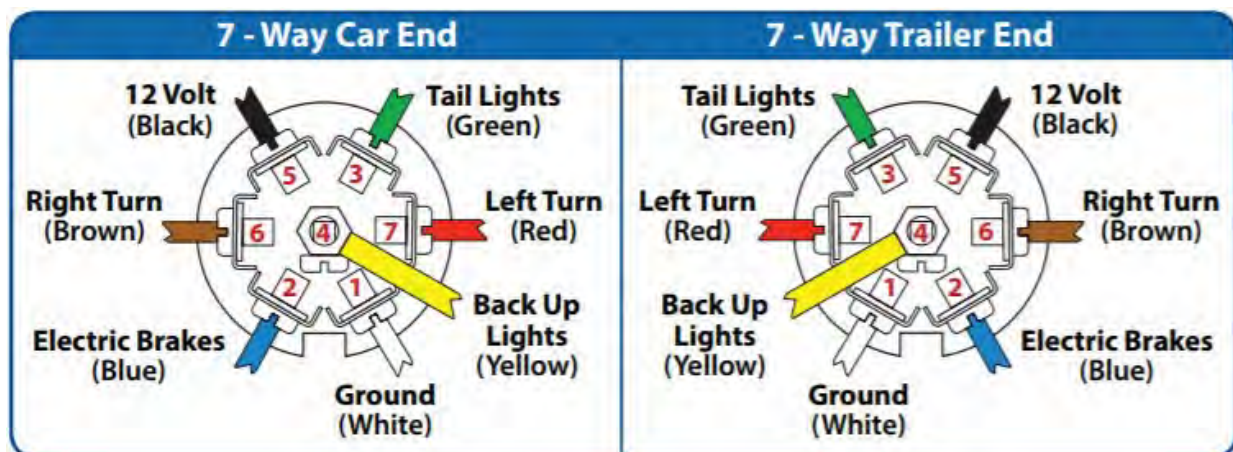
**NEITHER THE BREAKAWAY SWITCH NOR THE TRAILER BRAKES SHOULD EVER BE USED AS A PARKING BRAKE.**

### **⚠ CAUTION**

**ENSURE THAT THERE IS ENOUGH SLACK IN THE BREAKAWAY SWITCH CABLE TO ALLOW FOR TIGHT TURNING RADIUSSES.**

## **TOW PLUG**

The tow plug (7-way wire harness) is wired to your RV to connect electrical power from the tow vehicle for the RV brakes, taillights, clearance lights, turn signals and brake lights. Wiring to operate your brakes must be the same size in both the tow vehicle and RV. Regularly inspect your tow plug for corrosion and build up, clean as needed. If damage is noticed, have the tow plug repaired by an authorized RV technician.



## PIN BOX MAINTENANCE

- Regularly inspect the king pin for excessive wear.
- Inspect the skid plate for a neutral/centered position.
- When the trailer is disconnected from the tow vehicle, an equal gap of approximately 1-1/4" should be between the lip of the skid pad and the rubber compression bumpers. It is normal to be able to slightly move and twist the skid pad assembly with hand force.
- Inspect the retainment rods for excessive wear.
- Inspect the plastic glide pads for excessive wear. The pad should be no less than 3/4"
- Periodically check hardware torque values.
- Check and grease bearing(s) once per season. If more grease is needed, add it to the bearing assembly.



### **⚠ WARNING**

**DO NOT MIX LITHIUM, CALCIUM, SODIUM OR BARIUM COMPLEX GREASES. MIXING OF THESE CAN CREATE A CORROSIVE TOXIC CHEMICAL WITH FUMES THAT CAN RESULT IN SERIOUS HEALTH ISSUES.**

## CONNECTING TO THE TOW VEHICLE

### Hooking Up

**NOTE:** During the hitching procedure, the bottom of the trailers pin box should encounter the hitch skid plate ramp.

1. Place blocks against the front and rear of each RV tire.
2. If necessary, lower the tow vehicle's tailgate. **NOTE:** Clearance of the lowered tailgate to the trailer needs to be monitored during hookups, combinations of tow vehicle and trailer have little or no clearance.
3. With the RVs front landing gear, adjust trailer height so the bottom of the trailer's pin box is 1/2" to 1" below the top portion hitch skid plate.



### **⚠ WARNING**

**DO NOT ATTEMPT TO HITCH THE RV BY USING TRAILERS LANDING GEAR TO LOWER THE KINGPIN ONTO THE HITCH OPENING. THIS COULD RESULT IN THE KINGPIN COMING TO REST ON TOP OF THE SKID PLATE INSTEAD OF WITHIN THE HITCH OPENING, WHICH MAY RESULT IN DEATH OR SERIOUS INJURY.**

4. Open the jaw on the fifth wheel head.
5. Back the tow vehicle slowly toward the trailer until the tow vehicle's hitch contacts the bottom of the pin box and the kingpin slides into the receiver.
6. Latch the fifth wheel hitch in the closed position.
7. If space exists between the pin box and hitch, the trailer has not been properly hitched. Do not tow the trailer. Instead, repeat the hitching steps 1-7 until the trailer is properly hitched.
8. Connect the electrical and safety cords.
9. Raise the tailgate of the truck.
10. Do not tow the trailer until a Pull Test has been conducted (covered below).



## CONNECTING TO THE TOW VEHICLE (CONTINUED)

### Pull Test

#### **WARNING**

**FAILURE TO PERFORM A PULL TEST COULD RESULT IN SEVERE PROPERTY DAMAGE, INJURY OR DEATH. FAILURE TO SECURE TOW VEHICLE AND RV FROM MOVEMENT DURING THIS PROCEDURE COULD RESULT IN SEVERE PROPERTY DAMAGE, INJURY OR DEATH.**

1. Make sure the trailer wheels are blocked, the trailer landing gear is resting on firm ground to support the trailer and the tow vehicle is in park with the emergency brake engaged.
2. Return to the cab of the tow vehicle, release the emergency brake, and apply the trailerbrakes.
3. Slowly pull the trailer forward with the tow vehicle. **NOTE:** If properly connected, the brakes and chock blocks will prevent you from moving.
4. After successfully performing the Pull Test, fully raise the landing gear per manufacturer's recommendations.
5. Check and inspect all electrical circuits for proper operation, including clearance lights, turn signals and stop lights.
6. Remove and store all trailer wheel blocks.

When pulling an RV, the most obvious difference is mass. You will be taller, wider, and much heavier. Allow yourself plenty of room and time to maneuver out of potentially difficult situations.

Being taller, RVs are more susceptible to sway caused by cross winds and turbulence created by other large passing vehicles. Having the correct hitch equipment that is adjusted properly can significantly reduce these effects.

Know the height of your RV. This will help in avoiding overhead obstructions such as tree branches, low building overhangs and low clearance bridges or overpasses.

Know the width of your RV. This is important when negotiating, turns and other obstructions. Extendable side mirrors and/or add on tow mirrors can help greatly.

Know how much your RV weighs and be aware of the weight ratings of the RV. This information is available for your safety. It is critical to never overload your RV. Overloading adversely affects the towing and handling of your RV. Stay within the weight ratings and limits of your RV.

A tow vehicle and RV weigh a lot and takes longer to stop. Increase your following distance behind other vehicles. Give yourself plenty of room and time to stop.



## [CONNECTING TO THE TOW VEHICLE \(CONTINUED\)](#)

### **Pull Test (Continued)**

#### **⚠ WARNING**

**THE RV BRAKE SYSTEM IS DESIGNED AND RATED FOR THE GVWR OF THE RV, NOT THE GCWR OF THE TOW VEHICLE.**

#### **⚠ WARNING**

**WHEN POSSIBLE, ENSURE THAT YOUR HOLDING TANKS ARE EMPTY DURING TRAVEL. FULL HOLDING TANKS CAN ADVERSELY AFFECT THE TOWING OF THE RV.**

#### **⚠ WARNING**

**ALWAYS MAKE SURE THE PROPANE IS OFF WHEN TOWING THE RV.**

### **Hitch Receiver**

If equipped with a factory hitch receiver, you can tow an additional small trailer behind your RV (if wiring is not included it must be added if a trailer will be towed), such as a boat. Do not use a draw bar longer than 10 inches. The maximum length of the draw bar is from the center of the fastening pin to the center of the ball. The maximum trailer tow rating of the hitch receiver is 3,000 lbs. with a maximum hitch weight of 300 lbs.

The receiver can also be used for a storage rack, bike rack or similar. The cargo weight carrying capacity includes the weight of the cargo carrier and should never exceed 300 lbs.

Laws around double towing and overall towing length vary depending on where you live. Consult the appropriate authority for local towing restrictions in your area.

#### **⚠ WARNING**

**DO NOT EXCEED THE MAXIMUM LOAD OR HITCH WEIGHT RATING OF ANY HITCH KIT. EXCEEDING MAXIMUM LOAD OR WEIGHT RATINGS CAN CREATE A HAZARDOUS CONDITION THAT MAY RESULT IN POSSIBLE DEATH, SERIOUS PERSONAL INJURY OR SEVERE PRODUCT AND/OR PROPERTY DAMAGE, INCLUDING VOIDING OF THE WARRANTY.**

## ELECTRIC LEVELING SYSTEM

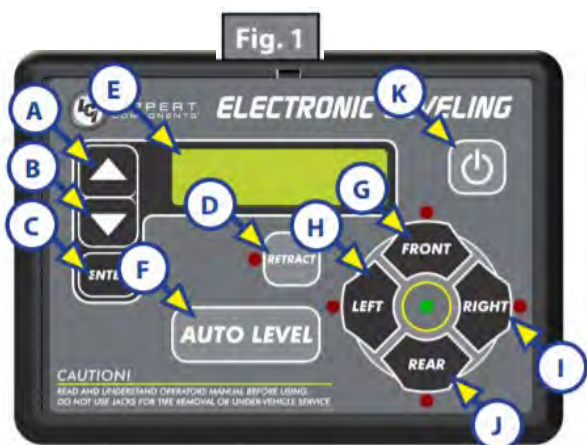
Once you get where you are going, you will need to level your RV. Before you operate the leveling system, make sure that the RV is parked on a level surface and not attached to the tow vehicle.

**NOTE:** Never level the RV with anyone inside.

### ⚠ WARNING

**WE RECOMMEND THAT A TRAINED PROFESSIONAL CHANGE THE TIRES ON YOUR RV. THE RV SHOULD ALWAYS BE PROPERLY SUPPORTED WITH JACK STANDS. ATTEMPTS TO CHANGE TIRES OR PERFORM OTHER SERVICE WORK BY THE LEVELING SYSTEM ONLY COULD RESULT IN DEATH OR SERIOUS INJURY.**

### Leveling System Touch Pad



Callout	Description
A	Up Arrow - Scrolls up through the menu on LCD.
B	Down Arrow - Scrolls down through the menu on LCD.
C	ENTER - Activates modes and procedures indicated on LCD.
D	RETRACT - Places leveling system into retract mode. - Manual mode ONLY Press and hold for several seconds to activate Auto Retract Function.
E	LCD Display - Displays procedures and results.
F	AUTO LEVEL - Places leveling system into auto level mode.
G	FRONT - Activates both front jacks in manual mode.
H	LEFT - Activates left rear jack in manual mode.
I	RIGHT - Activates right rear jack in manual mode.
J	REAR - Activates both rear jacks in manual mode.
K	Power Button - Turns leveling system on and off.

### ⚠ WARNING

**Moving parts can pinch, crush, or cut. Keep clear and use caution.**

## **ELECTRIC LEVELING SYSTEM (CONTINUED)**

### **Jack Operation**

Landing gear (front jacks) can be operated any time the system is "ON." By pushing the "FRONT" button (Fig. 1G), both front jacks can be extended. By pushing either the "FRONT" and "LEFT" (Fig. 1H) or "FRONT" and "RIGHT" (Fig. 1I) buttons, the individual front jacks can be extended. If the touch pad is put in the retract mode, indicated by the orange illuminated LED next to the "RETRACT" button (Fig. 1D), the front jacks can be retracted together by pushing the "FRONT" button (Fig. 1G) or individually by pressing "LEFT" (Fig. 1H) or "RIGHT" (Fig. 1I) buttons, while simultaneously pressing the "FRONT" button (Fig. 1G).

Middle jacks, if equipped, cannot be extended, or retracted in standard mode or manual mode. Middle jacks can only be operated in the special jack code error mode. In order to operate the middle jacks press "LEFT" (Fig. 1H) and "RIGHT" (FIG. 1I) buttons simultaneously.

The rear jacks can only be extended when the touch pad is in the manual mode. Once system is in manual mode, pressing the "REAR" button (Fig. 1J) will extend both rear jacks at the same time. To extend individual rear jacks, press the "LEFT" (Fig. 1H) or "RIGHT" (Fig. 1I) buttons while simultaneously pressing the "REAR" button (Fig. 1J), depending on which jack needs to be operated. If the touch pad is put in the retract mode, indicated by the orange illuminated LED next to the "RETRACT" button (Fig. 1D), the rear jacks can be retracted together by pushing the "REAR" button (Fig. 1J) or individually by pressing either the "LEFT" (Fig. 1H) or "RIGHT" (Fig. 1I) buttons, while simultaneously pressing the "REAR" button (Fig. 1J).

#### **Note:**

If the rear jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

### **⚠ WARNING**

**Be sure to park the trailer on solid and level ground. Prior to operation, clear all jack landing locations of debris and obstructions. The locations should also be free of surface depressions and moisture. When parking the trailer on extremely soft surfaces, utilize load distribution pads under each jack.**

### **⚠ CAUTION**

**People and pets should be clear of the trailer while the leveling system is operated. Never lift the trailer completely off the ground. Lifting the trailer so the wheels are not touching the ground will create an unstable and unsafe condition.**

## ELECTRIC LEVELING SYSTEM (CONTINUED)

### Unhitching From a Tow Vehicle

**Note:** Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and be sure to chock the tires of the trailer.

1. Extend the inner legs of both landing gear (front jacks) to within 4-5" of the ground by pulling on the quick-release pins.
2. Push "ON/OFF" (Fig. 1K). LCD Screen will light up and display "READY JACKS: UP" (Fig. 2A).
3. Push the "UP" arrow (Fig. 1A) to scroll to "Drop Front Jacks" option on LCD screen.
4. Red indicator lights (Fig. 2B) may come on, indicating the current disposition of the trailer. In this case, the front and right sides of the trailer are low.
5. Push "ENTER" (Fig. 1C). Both front jacks will go to ground and stop.
6. Push the "FRONT" button (Fig. 1G) extending the front jacks to a sufficient height, which raises the front of the trailer off of the tow vehicle's fifth wheel hitch plate.
7. Pull tow vehicle away and park at a safe distance.



### Auto Level

1. After unhitching from tow vehicle and parking the vehicle at a safe distance away from the trailer, press the "ON/OFF" button (Fig. 1K) and then press "AUTO LEVEL" (Fig. 1F).

**Note:** Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

## ELECTRIC LEVELING SYSTEM (CONTINUED)

### Auto Level (Continued)

**Note:** In order for hitch recognition feature to function, the auto level sequence must be started with the front of the trailer above level.

### Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will lower slightly to a point below level.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence occurs.

**Note:** At this point on the 6-point system, the 2 middle jacks are grounded to stabilize the trailer. These 2 jacks do not level the trailer.

4. Each jack will perform a final grounding touch.
5. LCD will read "AUTO LEVEL SUCCESS" (Fig. 3).
6. LCD will then read "READY Jacks: Down" (Fig. 4A), and the green LED at the center of the 4 jack buttons will be illuminated (Fig. 4B).



**Note:** If the AUTO LEVEL sequence does not perform as described, place the system in manual mode and test that the jacks operate correctly by pushing their coordinating buttons on the touch pad; i.e., "FRONT" button operates only the front jacks, etc.

## ELECTRIC LEVELING SYSTEM (CONTINUED)

### Hitch Recognition

1. Turn on the touch pad.
2. Push the "UP" arrow (Fig. 5A) to scroll to "Auto Reconnect" option on LCD screen.
3. Push "ENTER" (Fig. 5B). The rear jacks and middle jacks (if equipped) will retract first, then the front jacks will extend to raise the trailer to the height where the auto level sequence was started.

**Note:** If the auto level sequence was started with the front of the trailer in a below-level condition, the Hitch Recognition will not function, and the LCD will display "Feature Disabled." In order for the Hitch Recognition feature to function, the auto level sequence must be started with the front of the trailer above level.

4. Once jacks are retracted, pull the pin, and retract the inner legs of the landing gear (front jacks). Make sure the pin latches again when complete.



### Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the trailer is located in a salty environment, it is recommended to spray the rods every 4-6 weeks.



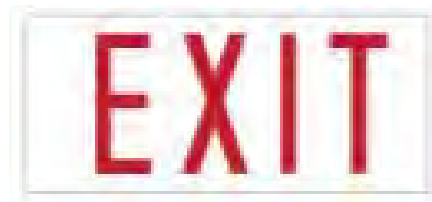
## OCCUPANT SAFETY

Alliance RV fifth wheels are equipped with safety systems that work together to help protect the occupants in the event of an emergency. Please read and fully understand all safety functions before using your new RV.

### **Emergency Exit Windows**

While all RV brands are different, the operation of the emergency windows are generally consistent across brands. The design, application, and location of these windows are governed by the RV Industries governing bodies. You will find some helpful safety information below regarding these exit windows. Please take time to familiarize yourself and anyone that will be in the RV with the location and operation of all exit windows in the RV.

**THE FOLLOWING LABEL IS ON OR NEAR ALL EMERGENCY EXITS IN THE RV**



**ENSURE THAT ALL EXIT WINDOWS ARE CLOSED AND LOCKED DURING TRAVEL.**

Identify and locate all emergency exit windows in the RV, they are easily identifiable by both the “EXIT” sticker and the red hardware used to open them.

Know what to expect in the event of an emergency. Activate the release mechanisms on the exit windows and apply pressure to push or slide them open.

Once you are familiar with the location and operation, make yourself familiar with the drop between the window and the ground. Depending on the RV, it could be a significant distance.



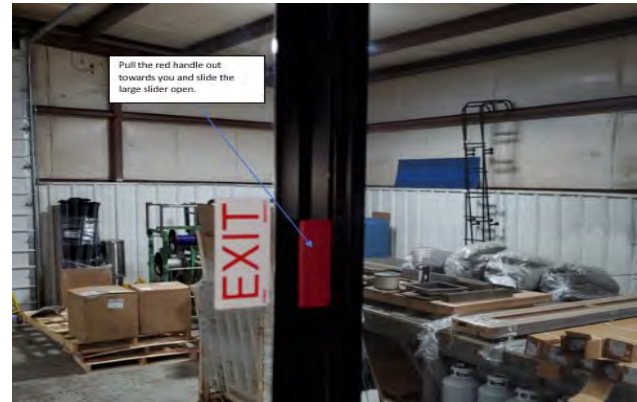
**ALWAYS PUT YOUR LEGS OUT FIRST AND ATTEMPT TO LAND ON YOUR FEET IF YOU MUST USE AN EMERGENCY EXIT WINDOW.**

## OCCUPANT SAFETY (CONTINUED)

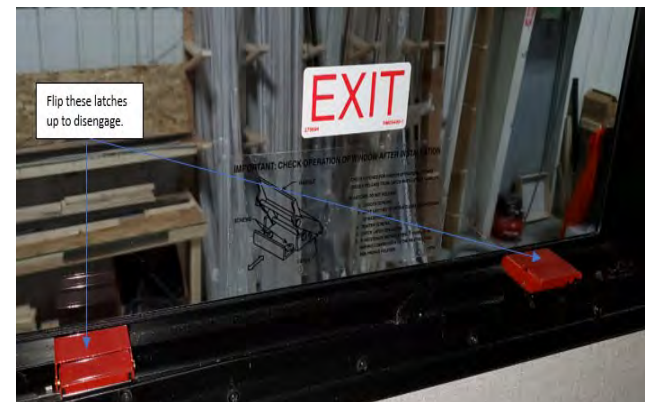
### Emergency Exit Windows (CONTINUED)

There are two styles of exit windows, both open differently.

1. **Pull Style Latch:** This style is generally used on larger slider style exit windows. Pull the handle out to slide the window open for escape.



2. **Flip Style Latch:** This style flips up and disengages which allows the window to be pushed out for escape.



## Fire Safety

Safety is always important, whether you are at home or on the road. As far as your RV, make sure to keep fire safety a top priority.

**\*\*In a fire, evacuating all occupants from the RV safely MUST be your top priority!\*\***



## OCCUPANT SAFETY (CONTINUED)

### Fire Extinguishers

Classified and rated by fire type, A, B and C. These classifications identify the kinds of fires or burning materials they are designed to fight.

A: Trash-Wood-Paper – Effective against fires involving paper, wood, textiles, and plastics. The primary chemical used to fight these fires is monoammonium phosphate due to the chemicals ability to smother fires in in these types of materials.

B: Liquids – Effective against flammable liquid fires. These can be fires where cooking liquids, oil, gasoline, kerosene, or paint have become ignited. The chemicals used in this type of extinguisher are monoammonium phosphate and sodium bicarbonate which induces a chemical reaction which extinguishes the fire.

C: Electrical Equipment: - Suitable for fires in “live” electrical equipment. Both monoammonium phosphate and sodium bicarbonate are used in this type of extinguisher due to their nonconductive properties.

#### **WARNING**

**NEVER TEST OR PRACTICE USING A FIRE EXTINGUISHER BY SQUEEZING THE TRIGGER. THESE ARE NON-RECHARGEABLE AND ONCE USED, PRESSURE WILL DECREASE OVER TIME AND WILL NOT BE FULLY FUNCTIONAL IN AN EMERGENCY.**

#### **WARNING**

**WHILE USING A FIRE EXTINGUISHER, ALWAYS KEEP YOUR BACK TOWARD A CLEAR PATH FOR EXIT.**

#### **WARNING**

**DO NOT TURN ELECTRICAL POWER BACK ON AFTER THE USE OF AN EXTINGUISHER.**

#### **WARNING**

**INSPECT EXTINGUISHERS WEEKLY. IF YOUR RV HAS BEEN IN STORAGE, INSPECT BEFORE THE RV IS USED. ALWAYS INSPECT BEFORE A VACATION OR TRIP WITH YOUR RV.**

## **OCCUPANT SAFETY (CONTINUED)**

### **Fire Extinguishers (Continued)**

A common acronym for proper fire extinguisher operation is P.A.S.S.

**P** – Pull the pin

**A** – Aim the nozzle (always aim at the base of the fire, not the flames)

**S** – Squeeze the trigger

**S** – Sweep from side to side

For additional information on fire extinguisher operation, please refer to the fire extinguishers user's manual.

### **Smoke & CO/Carbon Monoxide Alarms**

Your RV is equipped with a smoke & CO/Carbon Monoxide combination alarm. Understanding the information in this section will prepare you to reach in the event of an emergency

Follow safety rules and prevent hazardous situations:

- 1) NEVER smoke in bed.
- 2) Keep matches or lighters away from children.
- 3) Store flammable materials in proper containers.
- 4) Keep electrical appliances in good condition and NEVER overload electrical circuits.
- 5) Keep stove debris free.
- 6) Never leave anything cooking on the stove unattended.
- 7) Keep portable heaters and open flames, such as candles, away from flammable materials.
- 8) Do not let rubbish accumulate.

Refer to the smoke and carbon monoxide alarm owner's manuals for a more in depth understanding of the features, functions, and precautions of this safety device.

Keep alarms clean and test them weekly. Immediately replace any alarm that is not functioning properly.

#### **⚠ WARNING**

- **THIS ALARM WILL NOT OPERATE WITHOUT BATTERIES.**
- **NEVER IGNORE ANY ALARM, FAILURE TO RESPOND COULD RESULT IN SERIOUS INJURY OR DEATH.**
- **TEST ALARMS WEEKLY. IF THE ALARM FAILS TO TEST CORRECTLY, REPLACE THE ALARM IMMEDIATELY.**

## OCCUPANT SAFETY (CONTINUED)

### Smoke & CO/Carbon Monoxide Alarm Maintenance

- Test at least once a week. Always test after the RV has been in storage and before a vacation or long trip.
- Clean the alarm at least once a month.

#### **⚠ WARNING**

- **ALWAYS USE THE EXACT BATTERIES SPECIFIED BY THE ALARM MANUFACTURER.**
  - **NEVER USE AN OPEN FLAME OF ANY KIND TO TEST AN ALARM.**
- **DO NOT STAND CLOSE TO THE ALARM WHEN THE HORN IS SOUNDING. EXPOSURE AT CLOSE RANGE CAN BE HARMFUL TO YOUR HEARING. WHEN TESTING, STEP AWAY WHEN THE HORN STARTS TO SOUND.**

If an alarm sounds, identify which alarm is sounding.

**CO Alarm** - the CO LED will flash red, and an audible horn will beep 4 times and then pause, this will happen repeatedly. The smoke LED will remain off. If this alarm sounds, immediately move everyone to a source of fresh air and call your emergency services. Do not go into the RV until the problem is identified and corrected.

**Smoke Alarm** - the Smoke LED will flash red, and an audible horn will beep 3 times and then pause, this will happen repeatedly. The CO LED will remain off. If this alarm sounds, get out of the RV as quickly as possible and call your emergency services. Do not go into the RV until the problem is identified and corrected.

### Propane (LP) Alarm

For your safety, your RV is equipped with a combination CO and LP Alarm. This alarm will detect both carbon monoxide and propane gas. Please read and become familiar with the individual user's manual for this alarm. This will help prepare you if there is an emergency.

#### **⚠ WARNING**

- **THIS UNIT MUST BE REPLACED WITHIN 5 YEARS OF ITS PRODUCTION DATE.**
  - **THIS ALARM WILL NOT WORK WITHOUT POWER.**
- **THIS ALARM WILL ONLY INDICATE THE PRESENCE OF GAS AT THE SENSOR. THERE COULD BE GAS ELSEWHERE THAT HAS NOT REACHED THE SENSOR.**
- **THIS ALARM IS DESIGNED TO DETECT CARBON MONOXIDE AND PROPANE GAS. THE ALARM IS NOT DESIGNED TO DETECT SMOKE OR FIRE.**

## **OCCUPANT SAFETY (CONTINUED)**

### **Propane Alarm (Continued)**

If CO is detected, the red CO LED will flash, and the alarm will sound with 4 beeps and then a 5 second silence. This indicates that the CO level is over 35pp. If this alarm is activated, immediate action is required.

#### **If the CO alarm sounds:**

- Press the TEST/MUTE button to temporarily silence the alarm.
- MOVE to fresh air immediately.
- Make sure that everyone is accounted for.
- Call 911 or the local emergency services available in your area.
- Do not re-enter the RV until the problem has been corrected.

If propane is detected, the RED led will flash and the alarm will sound with a steady tone and remain on until the area is clear from propane gas. If you hear this alarm, immediate action is required. Exit the RV immediately and do not return into the RV until the problem has been corrected.

#### **If the propane gas alarm sounds:**

- Extinguish all flames and smoking material and turn off all gas appliances.
- Press the TEST/MUTE button to temporarily silence the alarm (DO NOT DISCONNECT POWER).
- Evacuate the RV. Make sure to account for everyone.
- Open doors and windows of the RV.
- Turn off the propane tank valve.
- Determine & repair the source of the leak.
- Do not re-enter the RV until the issue has been corrected

Under normal circumstances, this alarm should remain silent and have a steady green LED. If the alarm is defective, you will hear a beep every 30 seconds and an alternating red and green light. Anything outside of a quiet alarm with the green LED requires action.

## [OCCUPANT SAFETY \(CONTINUED\)](#)

### **Propane (LP) Alarm Maintenance**

Test all alarms weekly. Vacuum the dust off of the alarm cover. If cleaning is needed, clean with a water damp cloth. Do NOT spray cleaning agents or waxes directly onto the front panel. This can cause damage to the alarm.

#### **⚠ WARNING**

**THE CO ALARM WILL NOT OPERATE WITHOUT BATTERIES.**

#### **⚠ WARNING**

**NEVER ATTEMPT TO REPAIR AN ALARM, IMMEDIATELY HAVE THE ALARM REPLACED.**

## **EXTENDED RECREATIONAL USE OF THE RV**

In some cases, you may find yourself in the RV for extended periods of time. Whether that be full time living, a long weekend or an extended stay, you may run into some challenges. We have put together some helpful tips for battling some of these challenges.

### **Condensation & Mold**

The normal living activities of even a few people in an RV can lead to rapid moisture saturation of the air inside the RV as well as accelerated wear and tear. This condensation, if left unaddressed, can lead to mold. A more aggressive maintenance schedule may need to be adopted. Below are some pointers to assist with some of the problems you may face while using the RV for extended periods of time.

- Use a dehumidifier.
- Use exhaust fans when showering and cooking.
- In warmer temperatures, use your air conditioner.
- Crack windows.
- Do not air-dry clothes in the RV.
- Implement proper preventative maintenance and overall RV cleanliness.

### **⚠ WARNING**

**CONDENSATION MAY CAUSE DAMPNESS, MILDEW AND MOLD. IF NOT ADDRESSED IMMEDIATELY, CAN RESULT IN DAMAGE AND POSSIBLY LEAD TO ADDITIONAL MOLD OR MILDEW ISSUES WHICH CAN BE HAZARDOUS TO YOUR HEALTH**

### **Exterior Plumbing**

Alliance RVs are equipped with heating pads for the holding tanks and a dedicated heat vent to drop air down into the underbelly. Depending on your needs, it may be necessary for you to take additional protection steps. Keeping your water running and the additional use of heat tape on pipes, hoses, fresh water, and sewer lines will all assist in keeping your RV safe from damage during use in freezing temperatures. If your RV will not be used in cold weather, ALWAYS have your RV winterized (covered in the plumbing section of this manual).

### **Formaldehyde**

Formaldehyde is used in many products such as glues, fabrics, paint coatings, and even paper products. Formaldehyde is also released from many smoking, cooking, soaps, and many other household products. While most of the formaldehyde used in products in construction is consumed during the manufacturing process, a very small amount remains. This leftover formaldehyde dissipates over time as it works its way out of the product. Proper ventilation by way of the available vents, fans and air conditioning units in your RV is key.

If you have any additional questions, please do not hesitate to contact Alliance RV.

## **PROPANE SAFETY**

### **About the Propane System**

The propane system provides heat, hot water, fuel for cooking, refrigeration and can be used for other small appliances.

The propane supply for an RV is stored in a DOT cylinder that is positioned vertically upright and mounted outside the living space of an RV. Repair and/or replacement should always be done by certified service technicians.

Make sure your propane system is inspected at least annually by a certified service technician. They are trained to detect incorrect tank pressure, leaks, or other potential hazards and address them properly. Do not connect your propane system to another gas source or attempt to repair any propane related component yourself.

#### **⚠ WARNING**

##### **IF YOU SMELL PROPANE:**

- **EXTINGUISH ANY OPEN FLAMES INCLUDING PILOT LIGHTS AND ALL SMOKING MATERIALS.**
- **SHUT OFF THE PROPANE SUPPLY AT THE LP CONTAINERS.**
- **DO NOT TOUCH ELECTRICAL SWITCHES.**
- **OPEN DOORS AND OTHER VENTS.**
- **LEAVE THE AREA UNTIL THE ODOR CLEARS.**
- **THE PROPANE SYSTEM SHOULD BE CHECKED FOR LEAKS AND THE SOURCE DETECTED AND REPAIRED BEFORE USING THE RV AGAIN.**
- **FAILURE TO COMPLY COULD RESULT IN EXPLOSION RESULTING IN DEATH OR SERIOUS INJURY.**

#### **⚠ WARNING**

**NEVER USE AN OPEN FLAME TO TEST FOR A PROPANE LEAK. DO NOT CHECK FOR LEAKS USING PRODUCTS THAT CONTAIN AMMONIA OR CHLORINE, THESE PRODUCTS CAN CAUSE CRACKS TO FORM ON METAL COMPONENTS IN THE PROPANE SYSTEM. A SOLUTION OF WATER AN MILD SOAP SHOULD BE USED BY SPRAYING THE FITTINGS AND CONNECTION POINTS DOWN AND WATCHING FOR BUBBLES.**

## **PROPANE SAFETY (CONTINUED)**

### **⚠ WARNING**

- **DOT PROPANE TANKS MUST BE TRANSPORTED AND STORED IN AN UPRIGHT POSITION SO THE PRESSURE RELIEF VALVE CAN FUNCTION PROPERLY. LAYING A TANK ON ITS SIDE MAY CREATE A VERY DANGEROUS SITUATION.**
- **THE LP PIGTAIL HOSE MUST BE INSTALLED IN A MANNER TO AVOID TENSION OR STRESS AT EITHER END OF THE HOSE. KEEP THE PIGTAIL AWAY FROM SHARP EDGES, RIGID CORNERS, WALLS, AND DOORS.**
- **BEFORE ENTERING A PROPANE FUEL SERVICE STATION MAKE SURE ALL PILOT LIGHTS ARE EXTINGUISHED. SHUT THE GAS TO ALL APPLIANCES OFF BY TURNING OFF THE PROPANE AT THE GAS SHUT OFF VALVE(S). ALWAYS SHUT OFF ANY ENGINE BEFORE REFUELING. DO NOT SMOKE AND NEVER OPERATE IGNITION SOURCES WHILE REFUELING.**

### **Traveling with Propane**

Turning the propane off when traveling is always safer, it reduces the risk of a gas leak from a line or connection working loose. Some states have laws against traveling with the propane on. Make sure you are familiar with those laws and regulations in the area you are traveling.

### **⚠ WARNING**

**MAKE SURE ALL PROPANE TANK FASTENERS ARE SECURED BEFORE TRAVELING**

### **LP Regulator**

To regulate the propane pressure, an RV is equipped with a two-stage regulator with automatic changeover. With the first stage of the regulator, the fuel coming from the tank is reduced by venting from the high pressure the LP is compressed under for storage and takes it down to 10 to 15 psi. In the second stage, the pressure is reduced again by further venting down to 11" water column which is the pressure safe for the appliances that the propane system powers. Always make sure that the vents are clean and unobstructed.



## PROPANE SAFETY (CONTINUED)

### LP Regulator (Continued)



This regulator allows for removal of empty cylinders for refill without interrupting propane supply and will automatically switch from the supplying tank to the reserve tank when empty.

#### **⚠ WARNING**

**PROPANE CONNECTIONS SHOULD BE CHECKED PERIODICALLY AS VIBRATIONS FROM TRAVEL MAY CAUSE THEM TO LOOSEN. FAILURE TO CHECK THESE CONNECTIONS COULD LEAD TO A PROPANE LEAK. A LEAK CAN CAUSE A FIRE OR EXPLOSION.**

### Propane System Maintenance

Routinely visually inspect your propane cylinders, mounting hardware, supply lines and connection points for wear, rust, kinks, or damage. The propane system should be serviced by a qualified technician immediately upon an issue being identified. Never paint propane cylinders, valves, or mounting hardware.

Your RV's propane system should be inspected by a certified professional at least once a year. Never attempt to repair any propane related component yourself. Always make sure your RV's fire extinguisher, CO, gas, and smoke detectors are in working order. Do this by regularly testing your alarms and safety items. An alarm or extinguisher that is not working should be replaced immediately.

## **PROPANE SAFETY (CONTINUED)**

### **Propane System Maintenance (Continued)**

#### **⚠ WARNING**

- NEVER ATTEMPT TO REPAIR ANY PROPANE RELATED COMPONENT.
- ENSURE THAT ALL ALARMS, DETECTORS AND EXTINGUISHERS ARE IN GOOD WORKING ORDER.

### **Filling Your Propane Tanks**

Your Alliance RV uses DOT cylinders. These cylinders can be removed and taken to a propane dealer for refilling. A propane tank can only be filled to 80% of their total capacity. The remaining 20% is for expansion that takes place when subjected to heat. If a tank is filled to 80% when it is cold outside, that same tank may be at 90% on a much warmer day. Always ensure that the tank is filled to the required limit only.

#### **⚠ WARNING**

**NEVER FILL A PROPANE TANK OVER 80% OF ITS CAPACITY. AN OVERFILLED TANK COULD ALLOW LIQUID PROPANE TO ENTER THE SYSTEM WHICH IS DESIGNED FOR VAPOR AND CREATE A VERY HAZARDOUS CONDITION.**

### **Installing Propane Cylinders**

Anytime a propane tank is removed for servicing or filling and re-installed on the RV, ensure that the fittings are all tight and the main shutoffs on the LP tanks are in the off position and that the strap that secures the tank is in place. A quick visual inspection of the LP system should be performed any time tanks are removed.

### **Cooking with Propane Gas**

In an RV most stovetops and ovens run on propane. A properly ventilated RV is very important when cooking. Open a window or roof vent and turn your range hood fan on. Never use your stove or oven for space heat and never use outdoor fuel-burning equipment inside the RV.

#### **⚠ WARNING**

- DO NOT ATTEMPT TO USE WATER TO PUT OUT A GREASE FIRE. WATER CAN SPREAD SOME TYPES OF FIRE AN ELECTROCUTION IS POSSIBLE WITH AN ELECTRICAL FIRE.
- NEVER ALLOW GREASE TO COLLECT ON OR AROUND THE STOVE. CLEAN SPILLS UP IMMEDIATELY.
- IN AN RV, THE AMOUNT OF OXYGEN SUPPLY IS LIMITED DUE TO ITS SIZE. PROPER VENTILATION DURING COOKING WILL HELP AVOID DANGEROUS SITUATIONS.

## [SLIDE-OUTS](#)

### Slide-out Safety Information

#### **WARNING**

**FAILURE TO ADHERE WITH THE FOLLOWING INFORMATION MAY RESULT IN DEATH, SERIOUS INJURY, RV OR OTHER PROPERTY DAMAGE.**

All slide-out systems are intended solely for opening and closing the slide-out room and should never be used for any other purpose. Before operating your slide-out, please keep these things in mind:

- Your location should be clear of obstructions that may cause damage when the slide-out room is operated.
- Be sure that everyone is clear of the RV prior to the slide-out room actuation.
- Keep parts away from slide-out mechanisms during use. Severe injury or death may result.
- Park your RV on solid and level ground.

#### **CAUTION**

**ALWAYS ENSURE THE SLIDE-OUT PATH IS CLEAR DURING OPERATION. KEEP CLEAR OF SLIDE RAILS WHEN THE ROOM IS IN MOTION. THE GEAR ASSEMBLY MAY PINCH OR CATCH ON LOOSE CLOTHING AND CAUSE PERSONAL INJURY.**

## SLIDE-OUTS (CONTINUED)

### Through Frame Electric Slide-out System

Avenue utilizes a through frame electric slide-out system on the main level. This is a rack and pinion guide system that uses an electric ball screw actuator to move the room assembly. The motor drives the ball screw in a forward and backward motion to move the slide room in and out. The actuator comes equipped with an automatic clutching system. The slide-out system is designed to operate as a negative ground system.

- All slide-outs are operated at the central monitor panel shown below.
- This panel will be found relatively close to the entry door of the RV.
- The location will vary depending on floor plan of your RV.



### Operating Your Through Frame Electric Slide-out System

#### Extending Your Slide-out Room

1. Level Unit
2. Verify the battery is fully charged and hooked up to the electrical system.
3. Remove transit bars (if so equipped).
4. Press and hold the IN/OUT switch in the OUT position until room is fully extended and stops moving.
5. Release switch, which will lock the room into position.

**Note:** Only hold OUT switch until room stops.

## SLIDE-OUTS (CONTINUED)

### Operating Your Through Frame Electric Slide-out System (Continued)

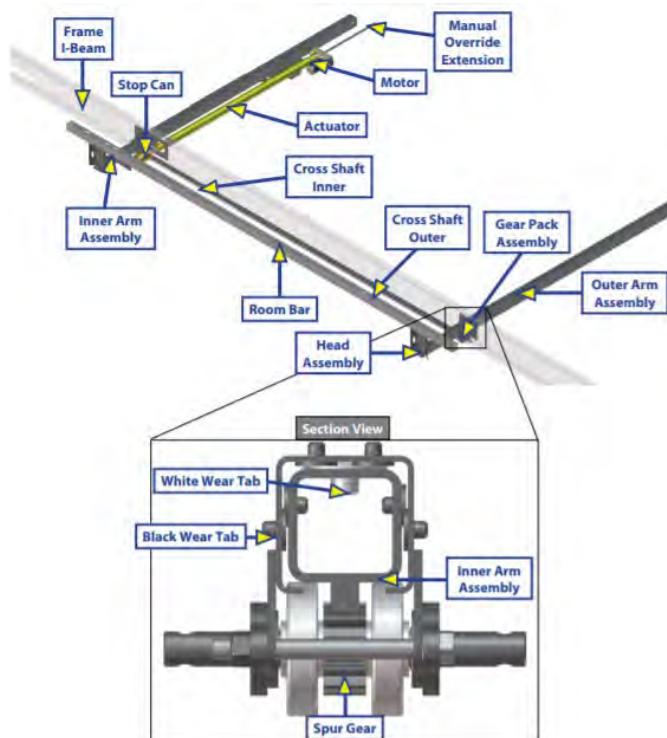
#### Retracting Slide-out Room

1. Verify the battery is fully charged and hooked up to the electrical system.
2. Press and hold the IN/OUT switch in the IN position until the room is fully retracted and stops moving.
3. Release the switch. This will lock the room into position.

**Note:** Only hold IN switch until room stops.

4. Install the transit bars (if so equipped).

### Through Frame Electric Slide-out System Overview



### Through Frame Electric Slide-out Maintenance

The Through Frame Electric Slide-out System has been static tested to over 4,000 continuous cycles without any noticeable wear to rotating or sliding parts. It is recommended that when operating in harsh environments (road salt, ice buildup, etc.) the moving parts be kept clean. They can be washed with mild soap and water. No grease or lubrication is necessary and, in some situations, may be detrimental to the environment and long-term dependability of the system.

## **SLIDE-OUTS (CONTINUED)**

### **Through Frame Electric Slide-out Maintenance (Continued)**

#### **Inspection**

After servicing the slide-out system in any way, be sure to check the following:

1. Slide-out stops are installed and adjusted properly.
2. Head assemblies are installed and adjusted properly.
3. System is mounted properly.
4. Cross shafts are mounted properly and clear all other components.
5. Gear packs function properly.
6. Manual override is accessible.
7. Outside seals compress when slide-out is retracted.
8. Inside seals compress when slide-out is extended.
9. Slide-out extends and retracts smoothly.
10. Both sides of slide-out are synchronized.
11. Any dirt or debris is cleaned from the interior or exterior of the coach.

#### **Electrical System Maintenance**

For optimum performance, the slide-out system requires full battery current and voltage. The battery must be maintained at full capacity. Other than good battery maintenance, check the terminals and other connections at the battery, the control switch, and the system for corrosion, and loose or damaged terminals. Check motor leads under the trailer chassis. Since these connections are subject to damage from road debris, be sure they are in good condition.

**Note:** The Through Frame Electric Slide-out System is designed to operate as a negative ground system.

A negative ground system utilizes the chassis frame as a ground and an independent ground wire back to battery is necessary. It is important that the electrical components have good wire to chassis contact. To ensure the best possible ground, a star washer should be used. Over 90% of unit electrical problems are due to bad ground connections.

#### **Mechanical Maintenance**

Although the system is designed to be almost maintenance free, actuate the room once or twice a month to keep the seals and internal moving parts lubricated. Check for any visible signs of external damage after and before movement of the travel trailer.

**Note:** For long-term storage: It is recommended that the room be closed (retracted).

## SLIDE-OUTS (CONTINUED)

### **Mechanical Room Adjustment**

**NOTE:** We recommend that slide-outs are adjusted by a certified RV technician.

**NOTE:** Small adjustments, and then running the room in after each adjustment until proper seal is achieved, is ideal.

### **Horizontal Adjustment**

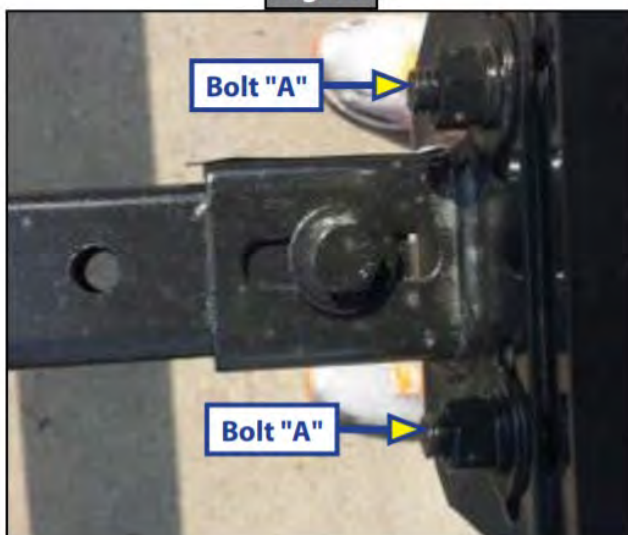
1. Loosen 2 carriage bolts "A" on each bracket located at the end of each guide tube (Fig. 17).
2. Room is ready to be positioned horizontally by pushing on the outside, sidewall or by using a prying device inserted into the opening between the room and coach.

**NOTE:** Use caution when using prying device so seals do not become damaged.

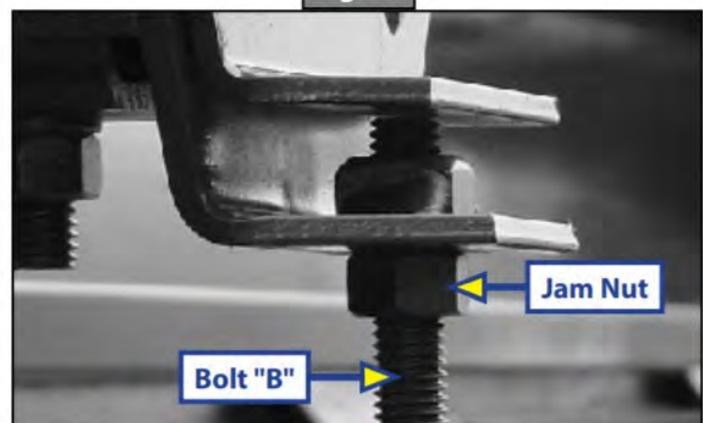
### **Vertical Adjustment**

1. Loosen 2 carriage bolts "A" on each bracket located at the end of each guide tube (Fig. 17).
2. Loosen jam nut (Fig. 18).
3. For vertical adjustment turn vertical adjustment bolt "B" up or down to locate room height (Fig. 18).
4. Once room is located, tighten carriage bolts "A" and jam nut bolts (Figs. 17 and 18).

**Fig. 17**



**Fig. 18**





## **SLIDE-OUTS (CONTINUED)**

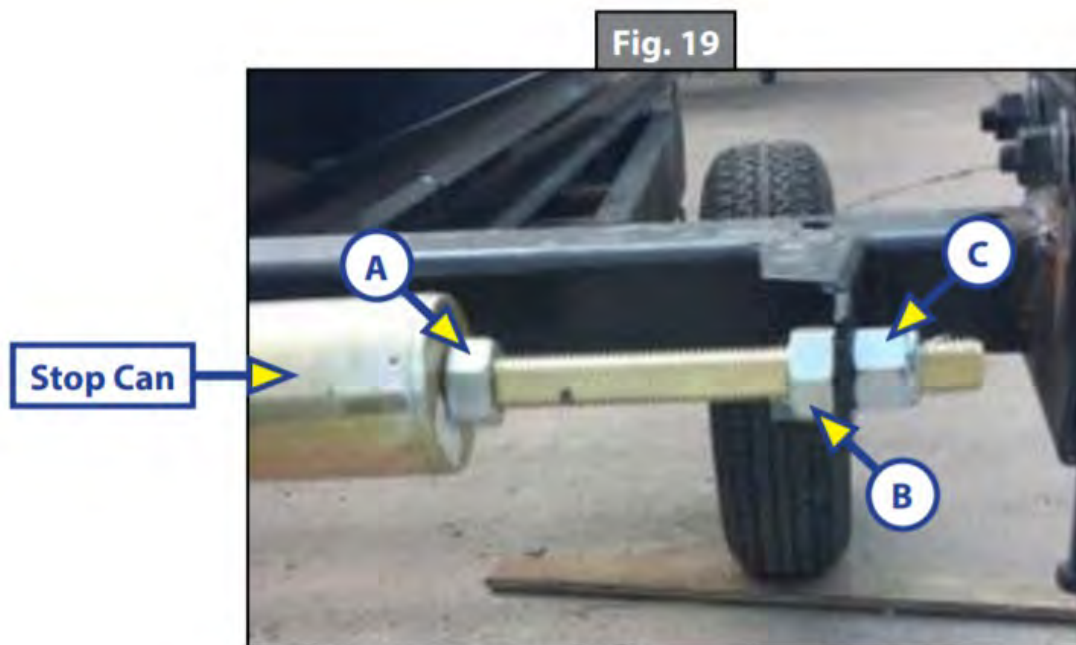
### **Mechanical Room Adjustment (Continued)**

#### **Adjusting room so it seals in the IN position**

1. Locate the actuator coming through the frame.
2. On the end of the actuator, there is a threaded shaft mounted to the drive bracket with three nuts and a stop can (Fig. 19).
3. Loosen the 3/4" nut (Fig. 19A) on the outside of the stop can using a 1 1/8" wrench.
4. Screw the can in or out, and then tighten down the nut - doing so will change the location of the seal going to the "in" position.

#### **Adjusting room so it seals in the OUT position**

1. Locate the actuator coming through the frame.
2. On the end of the actuator, there is a threaded shaft mounted to the bracket with three nuts and a stop can (Fig. 19).
3. Using a 1 1/8" wrench, move the 3/4" nut (Fig. 19B) and, using a 1 1/16" wrench, move the nylock nut (Fig. 19C) in either direction. This will change the location of your seal going to the "out" position.
4. Make sure all nuts are tight.





## SLIDE-OUTS (CONTINUED)

### Manual Override

**Note:** Always disconnect battery from system prior to manually operating system. Failure to disconnect battery can cause electricity to back feed through the motor and cause serious damage to the system as well as void the warranty.

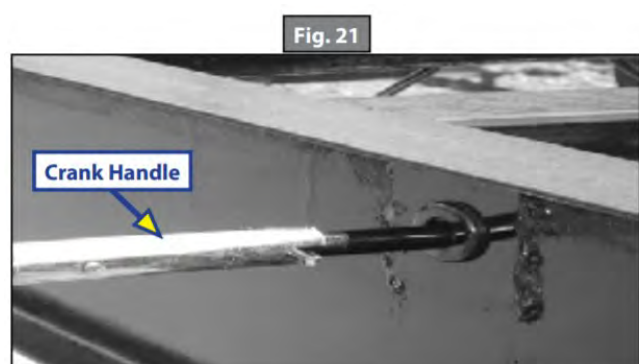
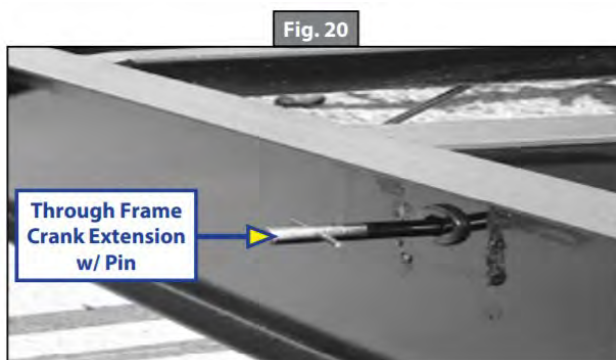
The Electric Through Frame Slide-out comes with a Manual Override system. There are two different methods for manually extending and retracting the slide-out room. A crank handle extension or 3/4" socket and ratchet can be used outside the chassis main rail at the crank extension with pin (Fig. 20-21). A socket and ratchet can be used inside the main frame on the hex head crank extension (Fig. 22-23).

### Manual Override - Outside Frame

Locate the crank extension with pin outside of the chassis main rail (Fig. 20). This is where the crank handle fits on (Fig. 21) to allow the manual extension/retraction of the room. Rotate the crank handle clockwise to retract and counterclockwise to extend slide-out. It is important to note that you DO NOT need to attempt to disengage the motor as the actuator is "manual ready." Just hook up and crank.

**Note:** Use EXTREME CAUTION when extending and/or retracting room using the manual override feature. It is possible to operate the slide-out beyond the maximum extension and/or retraction and damage the slide components, slide room structure, or trim components.

**Note:** The gears can be stripped out if the room is manually retracted/extended to its fullest extent and the operator continues to rotate manual override. Any damage due to misuse of the Manual Override feature will disqualify any and all claims to the Limited Warranty.



## SLIDE-OUTS (CONTINUED)

### **Manual Override (Continued)**

#### **Manual Override - Inside Frame**

Locate the hex head crank extension at the top of the actuator inside the chassis main frame (Fig. 22). Using a 3/4 socket and ratchet (Fig. 23), rotate the extension clockwise to retract the slide-out and counterclockwise to extend the slide-out. It is important to note that you DO NOT need to attempt to disengage the motor as the actuator is “manual ready.”

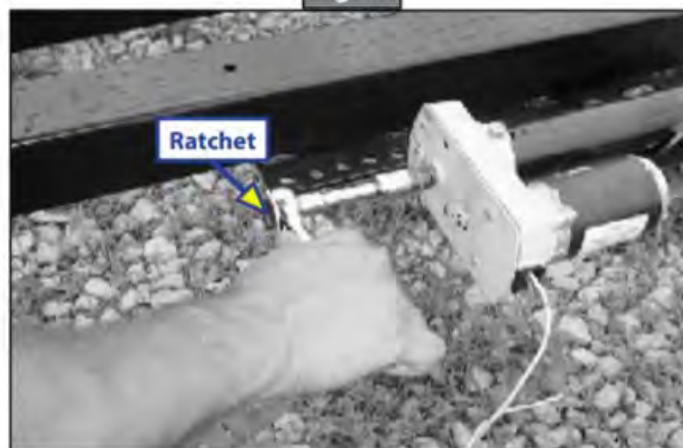
**Note:** Use EXTREME CAUTION when extending and/or retracting room using the manual override feature. It is possible to operate the slide-out beyond the maximum extension and/or retraction and damage the slide components, slide room structure, or trim components.

**Note:** The gears can be stripped out if the room is manually retracted/extended to its fullest extent and the operator continues to rotate manual override.

Fig. 22



Fig. 23



## SLIDE-OUTS (CONTINUED)

### **Schwintek Slide-out System**

We are utilizing the Schwintek electric slide-out system in the upstairs portion of the RV, typically a bedroom slide-out. All slide-outs are operated at the central monitor panel shown below. This panel will be found relatively close to the entry door of the RV in a cabinet designed to house this panel. The slide-out system should never be used for anything other purpose other than extending and retracting the slide-out room itself. To use the system for any reason other than what it is designed for may result in death, serious injury or damage to the coach.



### **Operating Your Schwintek Slide-outs**

#### **Extending the Slide-out**

1. Level the RV.
2. Verify the battery is fully charged.
3. Press and hold the rooms switch in the “OUT” position until room is fully extended and stops moving.
4. Release the switch, this will lock the room in the “OUT” position.

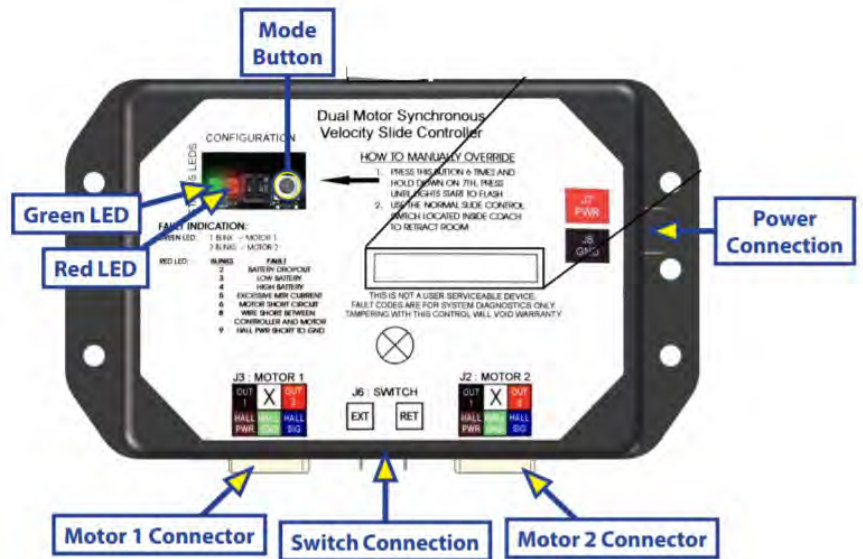
#### **Retracting the Slide-out**

1. Verify the battery is fully charged.
2. Press and hold the rooms switch in the “IN” position until the room is fully retracted and stops moving.
3. Release the switch, this will lock the room in the “IN” position.

**NOTE:** It is important to continue to press the slide-out switch for a few seconds after the room is fully extended until the motor shuts off. The control will sense the room has stopped and shut the motor off automatically.

## SLIDE-OUTS (CONTINUED)

### Slide-out Controller Overview



- **Status LEDs**: 2 LEDs, 1 green and 1 red, are provided to indicate current controller status and faults.
- **Mode Button**: Used to engage the electronic manual override.
- **Power Connection**: 12V DC input. Unit will operate from 8V DC to 18V DC.
- **Switch Connection**: Spade connection for the switch wiring.
- **Motor 1 Connector**: Power and encoder input for motor 1.
- **Motor 2 Connector**: Power and encoder input for motor 2.

### Slide-out Controller Connections

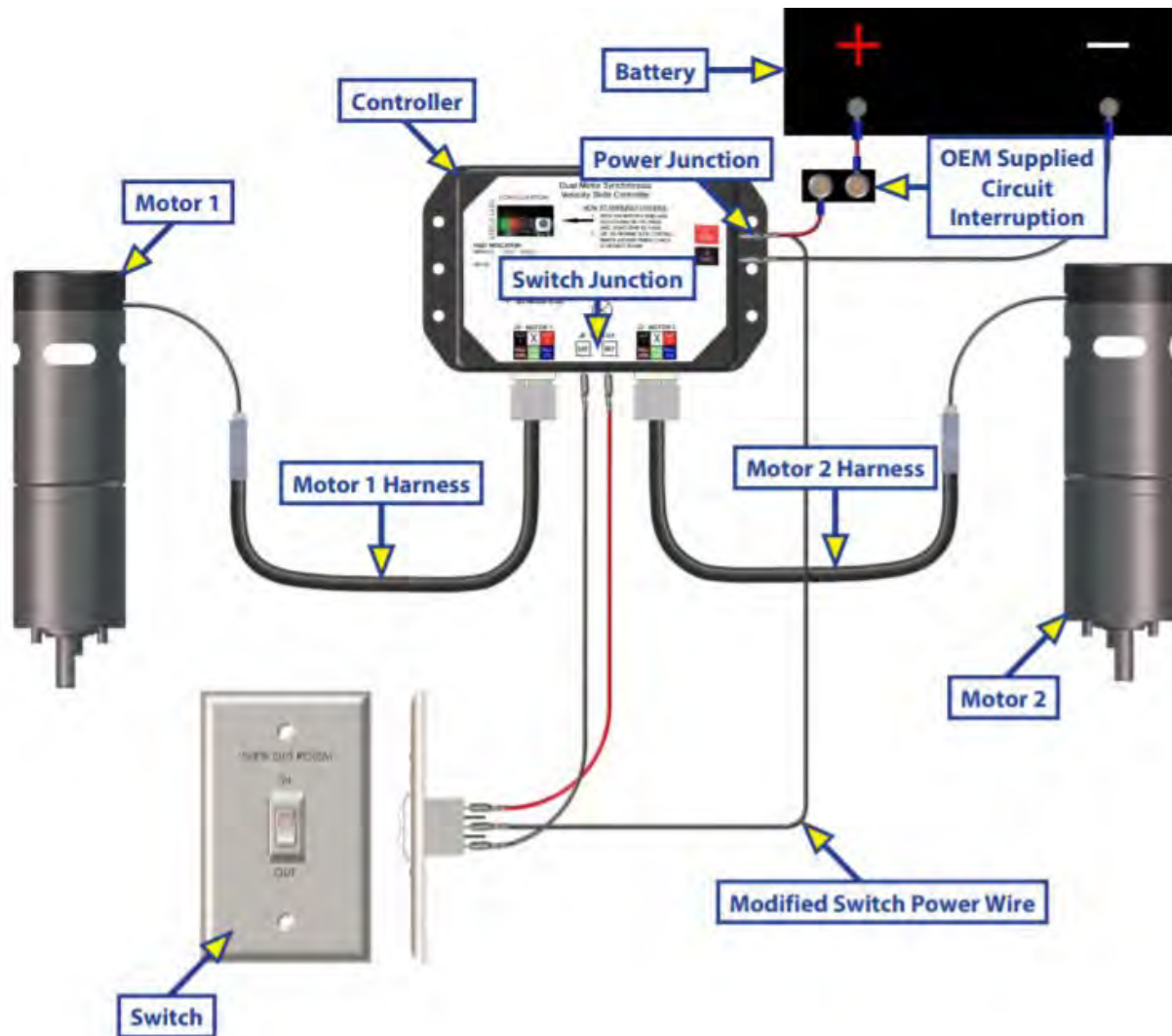
- **Connections & Motor Harness**



**NOTE:** Motor harnesses have Molex connectors at the controller and a molded connector at the motor end (2 images shown above). Wire colors match with color codes on the control board. It does not matter which motor is 1 or 2.

## [SLIDE-OUTS \(CONTINUED\)](#)

### Schwintek Slide-out System Overview



### Slide-out Motor and Harnesses

Check for proper connections between the motors and harnesses. Visually inspect the exposed harnesses to ensure they are not pinched or damaged.

**Note:** Ribs on motor connector lineup with notch inside of female connector on the wiring harness. Color codes on wires also match (black to black, red to red, etc.)



## SLIDE-OUTS (CONTINUED)

### Adjusting / Resynchronizing the Slide-out Motors

1. Run the slide-out room all the way out.  
**NOTE:** Keep the switch pressed until the motors shut down on their own.
2. Bring the slide-out back in 1-2 inches.
3. Repeat steps 1 and 2 until both motors shut down at the same time.  
**NOTE:** It can take 3 or more attempts to successfully re-sync the room.
4. Run the slide-out all the way out.  
**NOTE:** Keep the switch pressed until the motors shut down on their own. Fully retract the slide-out again. When both motors shut down at the same time at full extension and full retraction, the room is properly synchronized. If they do not shut down at the same time, repeat the process until they do.

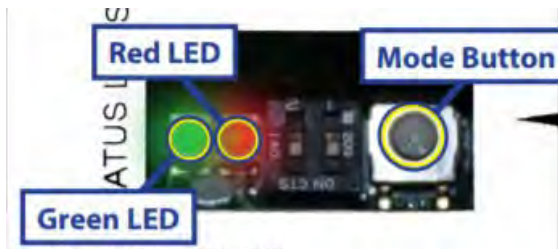
### Schwintek Slide-out Troubleshooting

The slide-out requires a minimum of a 30-amp circuit breaker. Check the 12-volt distribution center for blown circuit breakers and replace any if necessary. If the circuit breaker blows immediately upon replacement, there is a problem with the wiring to slide-out controller.

Check outside the RV for obstructions. Check inside the RV for any obstructions. Also, check for smaller objects that may be wedged under the floor or in the sides of unit. Remove any obstructions that exist.

Check the sides of the slide room for any dirt or debris. Small dirt clumps or metal shavings can cause the spur gear to bind up and stop the slide-out from moving. Use an air compressor or a dry brush to remove any dirt or debris from the rack before attempting to use the slide-out again.

During operation when an error occurs, the board will use the LEDs to indicate where the problem exists (shown below).



**FAULT INDICATION**

GREEN LED:	1 BLINK = MOTOR 1
	2 BLINKS = MOTOR 2

RED LED:	BLINKS	FAULT
	2	Battery Dropout
	3	Low Battery
	4	High Battery
	5	Excessive Motor Current
	6	Motor Short Circuit
	8	Wire Short Between Controller and Motor
	9	Hall Power Short to Ground



## SLIDE-OUTS (CONTINUED)

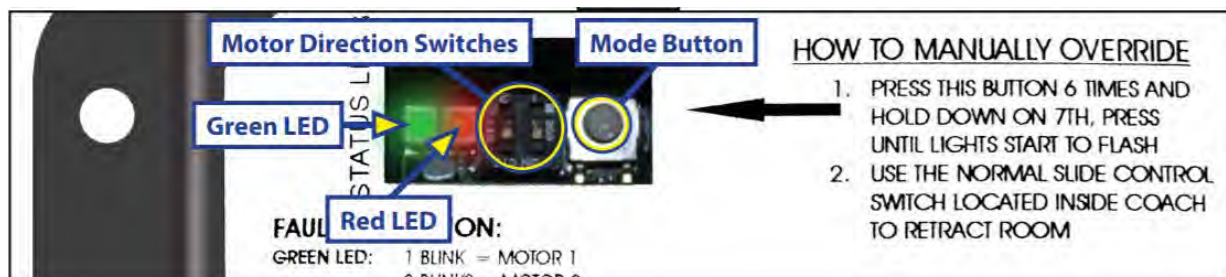
### Schwintek Slide-out Troubleshooting (Continued)

For motor specific faults the green LED will blink 1 time for motor 1, and 2 times for motor 2. The red LED will blink 2 to 9 times depending on the error code. When an error code is present, the board needs to be reset. Energizing the slide-out switch resets the board. Energize the slide-out switch again for normal operation.

Error Code	Name	Description
2	Battery Drop Out	Battery capacity low enough to drop below 6 volts while running or short in switch wiring
3	Low Battery	Voltage below 8 volts at start of cycle
4	High Battery	Voltage greater than 18 volts
5	Excessive Motor Current	High amperage, also indicated by 1 side of slide continually stalling
6	Motor Short Circuit	Motor or wiring to motor has shorted out
8	Wire Short Between Controller and Motor	Encoder is not providing a signal. This is usually a wiring problem.
9	Hall Power Short to Ground	Power to encoder has been shorted to ground. This is usually a wiring problem.

### Schwintek Slide-out Electronic Manual Override

1. Press the mode button on the controller six times and hold on the seventh for five seconds to enter electronic manual override mode.
2. Use the slide-out switch to move both motors in or out. **Note:** Over-current and short circuit detection are still enabled. Electronic manual override provides 12-volt directly to both motors.
3. To exit this mode, push and hold the mode button until the LEDs begin to blink simultaneously. Exiting the override mode resets the motor positions which will require you to have to re-sync the motors. **Note:** During this override procedure the motors are not synchronized. Visually watch the room, if one side is moving noticeably slower than the other (or not at all) then immediately stop and use the **Motor Disengagement Procedure** covered below.



## **SLIDE-OUTS (CONTINUED)**

### **Motor Disengagement Procedure**

1. Remove retention screws from the motor, located near the top of each vertical column on the outside of the coach.
2. Locate motor.
3. Pull the motor up until disengaged. A flathead screwdriver can be used to pry the motor up.
4. Reinstall motor retention screw to hold motor in place or remove the motor.

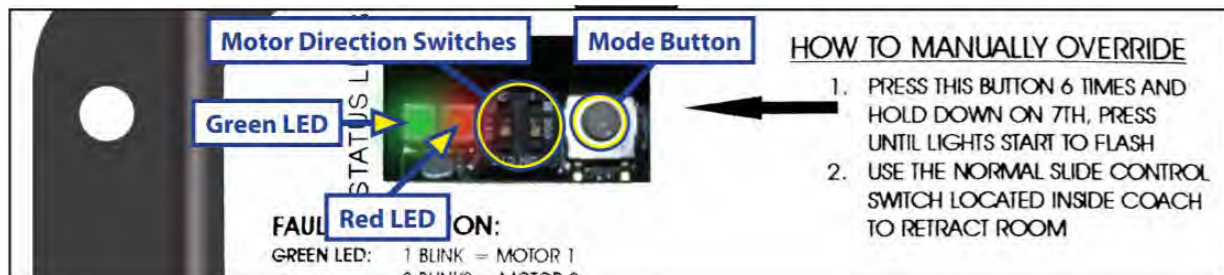
### **Slide-out Low Voltage**

The slide-out controller can operate the room with as little as 8-volts. However, at these lower voltages the amperage requirement is greater. Check voltage at the controller. If the battery is low, it needs to be charged or the unit should be plugged into shore power (or generator), if equipped.

### **Slide-out Motor Direction Switches**

The motor direction switches are used to change the direction of the individual motors. When running the slide-out room in or out and one side goes in and the other side goes out, then there is a problem in the wiring. The motor direction switches can be used to correct this problem. The left switch controls motor 2 and the right switch controls motor 1. If motor 1 is going in the wrong direction, then change switch 1's position. If motor 2 is going in the wrong direction, change switch 2's position.

The motor direction switches can also be used to change the direction of the slide-out switch. If the room extends when the slide-out switch is moved to the in position, its direction can be reversed by moving both switch 1 and switch 2 to their opposite positions. This feature can be used if it is more convenient to change the motor direction switches than to rewire the slide-out switch.





## [SLIDE-OUTS \(CONTINUED\)](#)

### **Schwintek Slide-out Maintenance**

Keep the gear racks and seals clean and free of debris. They can be washed with mild soap and water. **NOTE:** No grease or lubrication is necessary, and in some situations can be detrimental.

After servicing the slide-out system in any way, be sure to check the following:

- Slide-out stops are installed and adjusted properly.
- Head assemblies are installed and adjusted properly.
- System is mounted properly.
- Cross shafts are mounted properly and clear all other components.
- Gear packs function properly.
- Manual override is accessible.
- Outside seals compress when slide-out is retracted.
- Inside seals compress when slide-out is extended.
- Slide-out extends and retracts smoothly.
- Both sides of slide-out are synchronized.
- Any dirt or debris is cleaned from the interior or exterior of the coach.

## ELECTRICAL

### Electrical Overview

Your RV has a 12-volt electrical system and a 120-volt system. The 12-volt system is powered by battery and powers items such the water heater, furnace, and refrigerators, as well as most of the lights. Water pumps, carbon monoxide detectors and a number of other items will also be powered by the 12-volt system. You will also find that Alliance RV has conveniently color coded and numbered 12-volt wiring system.

The 120-volt system is powered by an electrical source via your power cord, a generator and in some cases, an inverter (which converts 12-volts to assist in powering the 120-volt system), and typically powers kitchen appliances, TVs, and other electrical appliances.

Alliance RV is compliant with industry standards applicable at the time the RV is manufactured. Do not make unauthorized changes.

#### **WARNING**

**CHANGES OR ADDITIONS MADE AFTER DELIVERY MAY RESULT IN HAZARDOUS CONDITIONS.  
ALWAYS HAVE A PROFESSIONAL WORK ON YOUR RV.**

Modifications the RVs electrical system should only be performed by qualified technicians and should never be made without approval from Alliance RV. Should a modification be made, those changes MUST comply with current safety and code requirements.

#### **WARNING**

**USE CAUTION WHEN USING METAL TOOLS. IF A TOOL CONTACTS A BATTERY TERMINAL OR METAL CONNECTED TO IT, A SHORT CIRCUIT COULD OCCUR AND CAUSE INJURY.**

Before working on the electrical system:

- Make sure the inverter (if equipped), is turned off before disconnecting batteries.
- Disconnect the power cord.
- Turn off the generator (if equipped) and disable the auto start function (if equipped).
- Turn off the battery disconnect switch.
- Turn off the 120-volt AC main circuit breaker.
- Disconnect the negative 12-volt DC battery terminal from the battery.

## ELECTRICAL (CONTINUED)

### **Power Control Center**

The INTELI-POWER series converter will supply "clean" power from input voltages that range from 105 - 130VAC.

The INTELI-POWER series of converters are primarily designed for use with a battery; however, the output of the INTELI-POWER converters is a regulated, filtered DC voltage that can power sensitive electronics without the need for a battery or other filtering.

At normal input voltages (105 – 130VAC) the full load rated capacity is available. At input voltages less than 105 VAC the converter may not supply full rated output capacity.



PD4500 Series - The full rated load is available for load, battery charging or both. When functioning as a regulated battery charger the converter has a nominal voltage output of 13.6 VDC. The system is designed to sense voltage on the battery and automatically selects one of three operating modes (normal, boost and storage) to provide the correct charge level to the batteries.

## ELECTRICAL (CONTINUED)

### Power Control Center (Continued)

- **NORMAL MODE:** Output voltage set at approximately 13.6 VDC.
- **BOOST MODE:** If the converter senses that the battery voltage has dropped below a preset level the output voltage is increased to approximately 14.4 VDC to rapidly recharge the battery.
- **STORAGE MODE:** When there has been no significant battery usage for 30 hours the output voltage is reduced to 13.2 VDC for minimal water usage. When in storage mode, the output voltage will periodically increase to 14.4 VDC to help prevent sulfating of the battery plates.

### **WARNING**

IT IS IMPORTANT THAT THE FLUID LEVELS OF ANY CONNECTED BATTERY(S) BE CHECKED ON A REGULAR BASIS. ALL BATTERIES WILL “GAS” AND LOSE SOME FLUID WHEN CONTINUOUSLY CONNECTED TO ANY CHARGING SOURCE.

### Typical Appliance Loads

APPLIANCE	AVERAGE POWER REQUIRED	
	WATTS	AMPS
Air Compressor (1hp)	900 - 1800	7.5 - 15
Air Conditioner	1,200 - 2,400	10 - 20
Battery Charger	Up to 3,000	6 - 28
Blender	450 - 700	3.3 - 5.8
Broiler	1,400 - 1,700	11.6 - 14
Vacuum	1,000 - 1,440	8.3 - 12
Stereo	85	.7
Coffee Pot	900 - 1200	7.5 - 10
Computer	60 - 270	.5 - 2.25
Laptop	20 - 50	.16 - .41
Converter	500 - 1,000	4 - 8
Curling Iron	20 - 50	.16 - .41
Dishwasher	1,200 - 2,400	10 - 20
Drill	250 - 1,000	2 - 8
Electric Blanket	60 - 100	.5 - .8
Fan	10 - 175	.08 - 1.45
Flat Iron	40 - 80	.3 - .6
Electric Skillet	1,000 - 1,350	8 - 11.25
Game Console	19 - 200	.16 - 1.6
Hair Dryer	1,200 - 1,875	10 - 15.6
Iron	1,000 - 1,800	8 - 15
Light Bulbs	13 - 100	.1 - .8
Microwave	750 - 1,100	6.25 - 9.2

## **ELECTRICAL (CONTINUED)**

### **Power Control Center Safety Features**

**REVERSE BATTERY PROTECTION CIRCUIT** – If a battery is accidentally hooked up backwards, the converter will be protected. Easily accessible ATC type fuses will blow when a battery is connected in reverse. Correct battery wiring and replace fuses with the same type and rating.

**THE DC SECTION** – The DC panel features up to 18 fused positions rated for up to 30 amps, depending on model, for accessories including ten low-to-full current rated branches. These can be used for lower current devices such as smoke and CO detectors. Each branch has an optional LED to indicate a blow branch fuse.

#### **⚠ WARNING**

**DISCONNECT ALL POWER TO THE CONVERTER PRIOR TO CHECKING OR CHANGING FUSES.**

#### **⚠ WARNING**

**FOR CONTINUED PROTECTION AGAINST RISK OF FIRE OR ELECTRICAL SHOCK, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE. CONSULT A LICENSED ELECTRICAL OR RV TECHNICIAN FOR ANY NEEDED ASSISTANCE.**

### **Power Control Center Specifications**

MODEL	PD4560(LI)	PD4575(LI)	PD4590(LI)
<b>AC Section</b>	240/120 VAC 50 Amps Maximum*		
	120 VAC 50 Amp Maximum* - 12 Branch Circuits		
<b>DC Section</b>	12 VDC 100 Amp Max. - 18 Branch Circuits		
<b>Converter Section</b>	Input: 105-130VAC 50/60 Hz	Input: 105-130VAC 50/60 Hz	Input: 105-130VAC 50/60 Hz
	1,000 Watts	1,250 Watts	1,550 Watts
	Output: 13.6-14.6 VDC (14.6 VDC)	Output: 13.6-14.6 VDC (14.6 VDC)	Output: 13.6-14.6 VDC (14.6 VDC)
	60 Amps	75 Amps	90 Amps
	Weight: 8 lbs.	Weight: 8.5 lbs.	Weight: 10 lbs.

*\* Maximum continuous loads on main or branch circuits not to exceed 80% of the circuit breaker ratings*

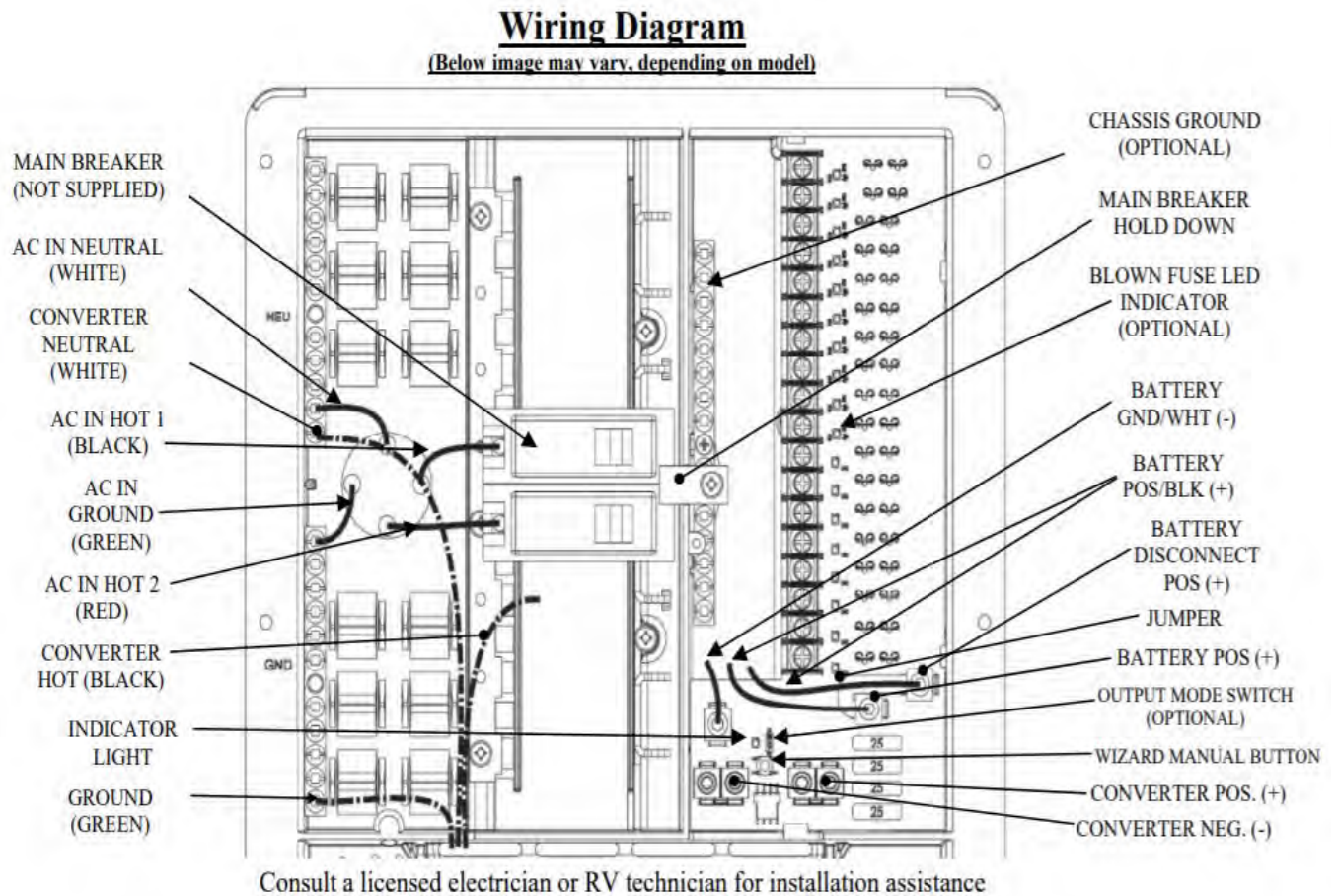
## **ELECTRICAL (CONTINUED)**

### **Power Control Center Troubleshooting**

PROBLEM	POSSIBLE CAUSE(S)	ACTION
No Output	Proper AC power not connected	Connect power supply Check AC distribution panel for proper operation
	Reverse battery fuses blown	Check for reverse battery connection Replace fuses with same type and rating
	Short circuit	Trace circuits for possible fault
	Unit has shut down due to overheating	Check air flow Allow unit to cool
	Unit has shut down due to over voltage	Check input voltage Correct input voltage
Low Output	Compartment gets too hot	Check air flow to the converter Improve ventilation to the compartment
	Excessive load for converter	Reduce load requirements Install larger converter
	Input voltage not between 105-130 Volts AC	Correct input supply voltage
	Bad battery cells	Replace battery
Intermittent or no output on generator, works on shore power	Unit has shut down due to over voltage	Add another load to the generator, this may reduce the spikes to an acceptable level.
	Some generators exhibit excessive voltage spikes on the AC power output, this may cause the over voltage protection to shut the unit down.	Contact generator manufacturer for possible defect in the generator
	Reverse battery fuses blown	Check battery polarity Replace fuses
	No battery connection	Check wiring to battery Check inline fuse

## ELECTRICAL (CONTINUED)

### Power Control Center Wiring Diagram





## **ELECTRICAL (CONTINUED)**

### **Power Cord**

A heavy-duty power cord with a 4-prong grounding plug is used to plug the RV into an external 120V source.



#### **Never connect the power cord to a power source:**

- That is not wired to the National Electric Code standard for 50-amp 120V/240V.
- With non-functioning ground circuits.
- That has reverse polarity.
- That shows outward signs of heat damage.

#### **Do not:**

- Use a cheater plug, adapter, or extension cord.
- Adapt the power cord to plug into a connector which it was not designed.

### **⚠ WARNING**

**DOING SO MAY RESULT IN PROPERTY DAMAGE OR SERIOUS INJURY. YOU CAN POTENTIALLY DAMAGE YOUR RVs ELECTRICAL SYSTEM WHICH COULD RESULT IN SEVERE OR EVEN FATAL INJURY.**

#### **To connect your power cord:**

- Turn the main 120V circuit breaker off.
- Extend the power cord its entire length.
- Plug the power cord in. Be sure that all the power cord prongs are properly plugged in.
- You are now safe to return turn the 120V circuit breaker back on.



## **ELECTRICAL (CONTINUED)**

### **Power Cord (Continued)**

- **DO NOT** plug your RV 50-amp shore cord into any receptacle that is not wired to National Electric Code for 50-amp 120/240V configuration. Doing so will supply the RV with the incorrect electrical power causing extensive damage to the electrical system and 120-volt components which would not be warrantable.
- **DO NOT** disconnect the 50-amp male plug connection by pulling up on the cord. This will cause a loss of neutral, and 240 volts AC will be supplied to the electrical system and 120-volt components causing extensive damage which would not be warrantable. Always pull straight out on the head of the cord so all 4 prongs disengage the receptacle simultaneously.
- **DO NOT** plug in or unplug the shore cord while under load. Make sure all 120-volt components are turned off prior to connecting or disconnecting the shore cord or damage to the 120-volt systems may result. Turn off the breakers at the power center first before connecting or disconnecting the shore cord to prevent damage.

#### **⚠ WARNING**

- **FAILURE TO PLUG YOUR 50 AMP POWER CORD INTO A RECEPTACLE THAT IS NOT WIRED TO THE NATIONAL ELECTRIC CODE FOR 50 AMP 120/140V CONFIGURATION COULD LEAD TO AN INCREASED RISK OF PROPERTY DAMAGE, SERIOUS INJURY OR DEATH.**
- **IT IS IMPORTANT TO INSPECT THE POWER CORD FREQUENTLY FOR DAMAGE. IF DAMAGE IS FOUND, HAVE THE CORD REPLACED IMMEDIATELY**

#### **⚠ WARNING**

**EXPOSURE TO VOLTAGES HIGHER OR LOWER THAN A NOMINAL 120-VOLTS, WILL DAMAGE OR SHORTEN THE SERVICE LIFE OF THE ELECTRICAL SYSTEM AND APPLIANCES. THE 50 AMP 120-VOLT 60HZ AC ELECTRICAL SYSTEM CAN BE POWERED BY AN OUTSIDE 120/240-VOLT 60HZ UTILITY SERVICE LIKE THOSE COMMONLY FOUND IN CAMPGROUNDS OR BY 120/240-VOLT 60HZ GENERATOR POWER**

#### **⚠ WARNING**

- **MAKE CERTAIN THE EXTERNAL POWER SOURCE YOU CONNECT THE POWER CORD TO IS A PROPERLY WIRED 50 AMP NEMA 14-50 RV RECEPTACLE AND NOT 240 VOLT AC. PLUG INTO 50-AMP SERVICE ONLY**
  - **CIRCUIT BREAKERS AND FUSES WILL NOT OFFER COMPLETE PROTECTION OF THE ELECTRICAL SYSTEM IN THE EVENT OF POWER SURGE OR VOLTAGE SPIKE**

## **ELECTRICAL (CONTINUED)**

### **120-Volt Circuit Breakers**

Your 120V circuit breakers are in the main power control center. These circuit breakers act just like those in a household in that they protect all the 120V wiring and components. You will find the individual circuits labeled to identify which each breaker is for.

To reset a breaker, simply flip the switch to the off position then immediately back to the on position. If the breaker immediately trips again, contact your dealer or Alliance RV for assistance.

Circuit breakers can wear out so an annual check to ensure operation is good may be needed. Only replace circuit breakers with those of the same specified type, voltage, and current rating. NEVER replace a circuit breaker with one listed at a higher amperage rating.

#### **WARNING**

- **CIRCUIT BREAKERS AND FUSES WILL NOT OFFER COMPLETE PROTECTION OF THE ELECTRICAL SYSTEM IN THE EVENT OF POWER SURGE OR VOLTAGE SPIKE**
- **REPLACEMENT CIRCUIT BREAKERS MUST BE OF THE SAME VOLTAGE, AMPERAGE RATING AND TYPE. NEVER USE A HIGHER RATED REPLACEMENT CIRCUIT BREAKER, DOING SO MAY CAUSE A FIRE BY OVERHEATING THE RV WIRING**

At the beginning of camping season, inspect the circuit breakers and replace as needed. Test by turning each circuit breaker off and back on, circuit breakers are wearable parts and must be replaced as needed as part of your RV maintenance.

### **12 Volt Fuse Panel**

You will find the 12-volt fuse panel in the main power control center (mentioned above). When replacing fuses, please follow these safety precautions:

- Disconnect the power cord.
- Turn the inverter off.
- Disconnect batteries.

## **ELECTRICAL (CONTINUED)**

### **GFCI (Ground Fault Circuit Interrupter)**

A ground fault circuit interrupter is a type of circuit breaker that shuts off electric power when it senses an imbalance between the outgoing and incoming current. A GFCI is specifically designed to protect a person from electrical shock by reacting to an imbalance that can be as small as 4 or 5 milliamps, when detected, in less than one tenth of a second the circuit is tripped and shuts off.

The GFCI circuit should be tested at least monthly.

- Push the TEST button. This action should force the RESET button on the recep (engaging the interruption of power).
- To reset the GFCI to working order, push the RESET button.
- If the RESET button cannot be depressed, your 120-volt electrical will require service – contact your servicing dealer immediately.

### **Battery (Not Provided by Alliance RV)**

When you are not plugged into electricity (dry camping), the battery supplies power to the 12-volt system in the RV. The battery in this scenario will eventually die unless other steps are taken with generator and/or solar power (see the appropriate section of this manual for more details.)

When plugged in, the converter in your RV reduces some of the 120-volt incoming power down to 12-volts in order to supply power to the 12-volt system in the RV.

The converter will sense voltage on the battery and automatically selects one of three operating modes (normal, boost and storage) to provide the correct charge level to the batteries.

**BOOST MODE:** If the converter senses that the battery voltage has dropped below a preset level the output voltage is increased to approximately 14.4 VDC to rapidly recharge the battery.

**NORMAL MODE:** Output voltage set at approximately 13.6 VDC.

**STORAGE MODE:** When there has been no significant battery usage for 30 hours the output voltage is reduced to 13.2 VDC for minimal water usage. When in storage mode, the output voltage will periodically increase to 14.4 VDC to help prevent sulfating of the battery plates.

See the converter section of this manual for more information on how it will interact with your battery.

## [ELECTRICAL \(CONTINUED\)](#)

### **Battery Disconnect Switch**

Used to shut off all 12-volt power that supplies RV. When the switch is activated, the batteries are disconnected/isolated and no longer supply 12-volt power to the RV.

- You will find the battery disconnect switch in the front storage compartment on the wall behind the battery box.
- To operate the switch, simply turn the lever to the ON or OFF position.



### **Solar Prep**

Alliance RVs are all solar prepped. The basic solar prep includes a pre-installed CEP (cable entry plate) mounted on the roof of the RV. The wiring from the CEP will run to a convenient location in the RV in which a solar charge controller can be installed inline.

**NOTE:** This will be identified by a label. This label could be in various locations in the RV. If you cannot locate this entry point, please give us a call!



## **ELECTRICAL (CONTINUED)**

### **Solar Prep (Continued)**

The wiring from the cable entry point will then continue from the pre-determined controller location to the battery compartment and tie DIRECTLY into the battery. The solar prep is now ready for a solar panel and solar controller. By adding a panel and controller, you will not have a solar charge going directly to your auxiliary battery that will support your 12-volt system. Please contact Alliance RV or your dealer for details on the controller and panel.

**NOTE:** Our solar prep and solar option are low voltage systems. For more details or any questions, please contact your Alliance RV dealer or Alliance RV.

### **Factory Solar Option**

Alliance RVs solar option is the complete RV power package. An economical and powerful way to have most of the comforts you need wherever your dry camp. The Avenue system features a 2000w inverter, solar charge controller and a solar panel. This system will allow convenient access to AC or solar power through your breaker panel, and the ability to charge batteries from both shore and solar power. This system is easily expandable into a full-time system and is lithium battery compatible. For additional details, please contact your Alliance RV dealer or Alliance RV.

### **Inverter Overview (If equipped with factory solar option)**

The Renogy 2000W 12V Inverter provides 2000W continuous, 4000W peak surge during load start-up and 12V to 120VAC pure sine wave with conversion efficiency >90%, reduces conversion loss. It has been robustly designed with safety and protection features for installation in recreational and commercial vehicles. It has been UL certified in both the US and Canada so you can feel comfortable knowing that your inverter is safe.

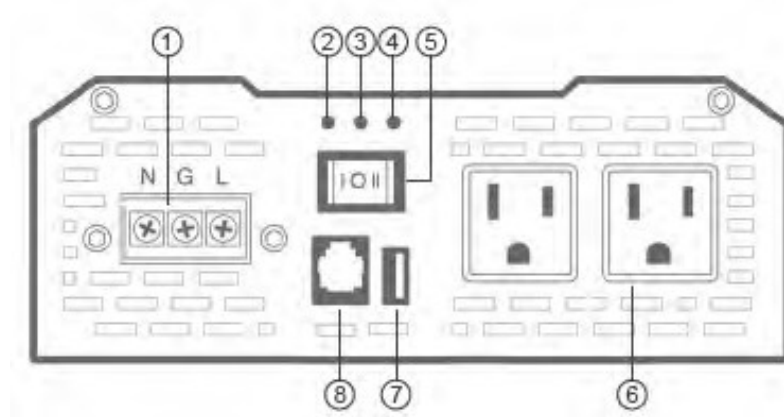


Inverter and wired remote

## [ELECTRICAL \(CONTINUED\)](#)

### Inverter Overview (If equipped with factory solar option)

#### Identification of Parts (AC Side)



#### Key Parts

- 1. High Output AC Terminals** — These terminals are for connecting 115V AC devices that require more than 15-amps to operate or for connection to distributed wiring that has multiple AC outlets. Remove the two screws on protective cover to access the terminals. Any AC output wiring that is directly connected must comply with US National Electric Code (NEC) wiring gauge recommendations.

Facing the front panel, the terminals are:

LEFT	Middle	Right
Neutral (N)	Ground(G)	Live(L)

NEUTRAL and GROUND are bonded inside the inverter to comply with the National Electric Code (NEC) requirement that any AC source must have a neutral to ground connection.

- 2. Power LED (Green)** — When this green LED is lit, the inverter is operating.
- 3. GFCI LED (Yellow)** — When the yellow LED is lit, the ground fault circuit has been interrupted. Shut down the inverter and restart.

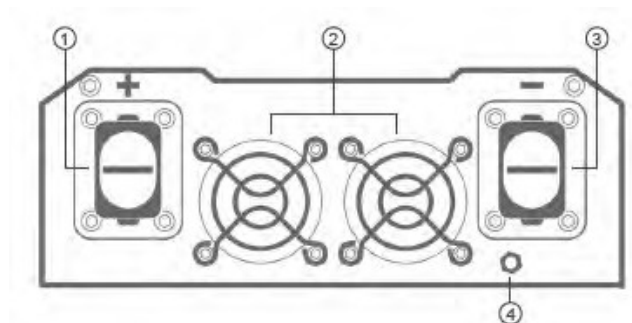
## **ELECTRICAL (CONTINUED)**

### **Identification of Parts (AC Side)**

4. **Fault LED (Red)** — The red indicator turns on as the inverter shuts down due to overheating, overload, under voltage, or over voltage.
  - Immediately turn off all AC appliances if the Fault LED is lit. Allow the inverter to cool before continuing. Make sure that the ventilation vents are not blocked.
  - If an inverter shutdown was preceded by a buzzing sound, there may be an excessive load in combination with low voltage or a cable problem.
5. **ON/OFF Switch** — Controls AC output.
6. **AC Outlets** — 115V AC 60Hz, up to 15amps for 2000W.
7. **USB Power Port** — 5 volts / 2.1A for charging tablets, smartphones, and other small electronic devices.
8. **Remote Switch Connection** — Insert wired remote switch to the connection port. Set ON/OFF switch to "remote" position.

**NOTE: Alarm** —If there is a buzzing sound, the battery is low. The user should reduce the AC load, charge the battery, and check the DC cable for excessive losses.

### **Identification of Parts (DC Side)**



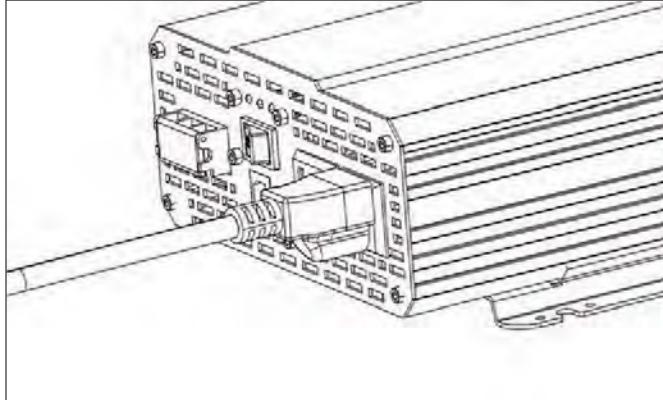
### **Key Parts**

1. **Positive Terminal** — Positive (+) DC Input (Red)
2. **Cooling Fans** — Thermally controlled
3. **Negative Terminal** — Negative (-) DC Input (Black)
4. **Ground Terminal** — For insulated safety ground wire.

## ELECTRICAL (CONTINUED)

### AC Side Operation

1. Connect electronic devices to electrical socket(s) on inverter. Flip inverter power to ON position (on AC side). The wired remote panel can be used to turn on.



2. When finished, switch AC devices off FIRST, then turn off inverter switch. The wired remote panel can be used to turn on.

#### **⚠ CAUTION**

- **AVOID SWITCHING ON THE INVERTER WITH THE LOAD (ELECTRONIC DEVICES) ALREADY SWITCHED ON. THIS MAY TRIGGER AN OVERLOAD SINCE SOME ELECTRONIC DEVICES HAVE AN INITIAL HIGH-POWER SURGE TO START.**
- **WHEN SWITCHING OFF THE INVERTER, TURN OFF THE ELECTRONIC DEVICES FIRST. ALTHOUGH THE INVERTER IS OFF, THE CAPACITORS WILL STILL HAVE A CHARGE, SO THE DC AND AC TERMINALS MUST BE DISCONNECTED IF ALTERING THE CIRCUITRY.**

#### **⚠ WARNING**

- **FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH.**
- **FAILURE TO FOLLOW THESE INSTRUCTIONS MAY DAMAGE THE UNIT AND/OR EQUIPMENT.**



## **ELECTRICAL (CONTINUED)**

### **Inverter Troubleshooting**

Indicator	Potential Issue	Troubleshoot
Alarm beeps	Input voltage is below 10.5V	Keep input voltage above 10.5V
	Input voltage is above 16.0V	Keep input voltage below 16.0V
Fault LED Lit, inverter shut down and alarm on	Input voltage is below 10V	Keep input voltage above 10V
	Input voltage is above 16.5V	Keep input voltage below 16.5V
	Inverter overheats	Allow inverter to cool down
		Check for adequate ventilation
		Reduce the load on inverter
	Operating equipment draws too much power	Use a higher wattage inverter or use a lower powered device
	Inverter is short circuited	Disconnect the inverter and turn off the ON/OFF switch to reset
Yellow LED Lit - Inverter shut down	GFCI tripped	Disconnect appliances and turn off the ON/OFF switch to reset

### **Solar Panel (If equipped with factory solar option)**

If equipped with factory solar option a single 320w monocrystalline solar panel is mounted on the roof.

### **Cleaning and Maintenance**

Solar panels generally require very little maintenance in order to function. The only thing they need is a periodic light cleaning to make sure dirt, leaves, and other debris are not obstructing the sun's rays. To clean the panels, use a soapy sponge and wipe dry with a squeegee.

### **Solar Charge Controller (If equipped with factory solar option)**

If equipped with factory solar option, a Rover 20-amp MPPT charge controller will provide charging efficiencies for countless 12-V off-grid solar applications. Compatible with an assortment of batteries, including Lithium, the Rover MPPT maximizes your solar charging energy through its smart tracking algorithm ensuring the most efficient to your battery. Additionally, the Rover MPPT is equipped with multiple battery, controller, and solar protections giving you peace of mind and an optimized system you can trust.

## **ELECTRICAL (CONTINUED)**

### **20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)**

**Identification of part:**



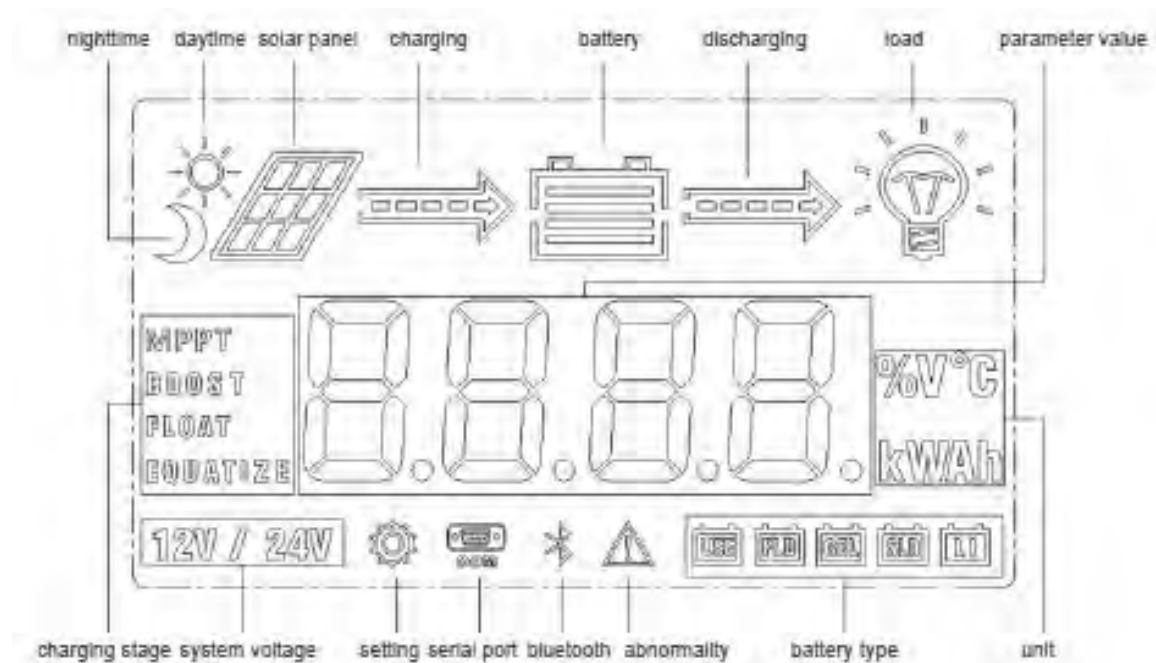
#### **Key Parts**

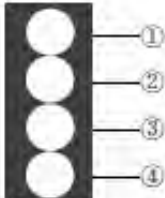
1. PV LED Indicator
2. Battery LED Indicator
3. Load LED Indicator
4. System Error LED Indicator
5. CD Screen
6. Operating Keys
7. Mounting Holes
8. Remote Temperature Sensor Port (optional accessory)
9. PV Terminals
10. Battery Terminals
11. Load Terminals
12. RS-232 Port (optional accessory)

## [ELECTRICAL \(CONTINUED\)](#)

### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

#### LCD Indicators

















	①—PV array indicator	Indicating the controller's current charging mode.
	②—BAT indicator	Indicating the battery's current state.
	③—LOAD indicator	Indicating the loads' On/ Off state.
	④—ERROR indicator	Indicating whether the controller is functioning normally.

## [ELECTRICAL \(CONTINUED\)](#)

### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

#### LCD Indicators (Continued)

PV Indicator (1)		Status
	White Solid	The PV system is <u>charging</u> the battery bank
	White Slow Flashing	The Controller is undergoing boost stage
	White Single Flashing	The Controller is undergoing float stage
	White Fast Flashing	The Controller is undergoing equalization stage
	White Double Flashing	The oversized PV system is <u>charging</u> the battery bank at the rated current.
	Off	The PV system is <u>not charging</u> the battery bank. PV not detected.
BATT Indicator (2)		Status
	White Solid	Battery is <u>normal</u>
	White Slow Flashing	Battery <u>over-discharged</u>
	White Fast Flashing	Battery <u>over-voltage</u>
LOAD Indicator (3)		Status
	White Solid	Load is <u>on</u>
	White Fast Flashing	Load is <u>over-loaded</u> or <u>short-circuited</u>
	Off	Load is <u>off</u>
ERROR Indicator (4)		Status
	White Solid	System Error. Please check LCD for Error code
	Off	System is operating normally

## ELECTRICAL (CONTINUED)

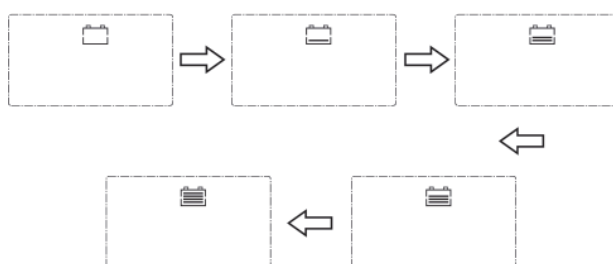
### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

#### Operation

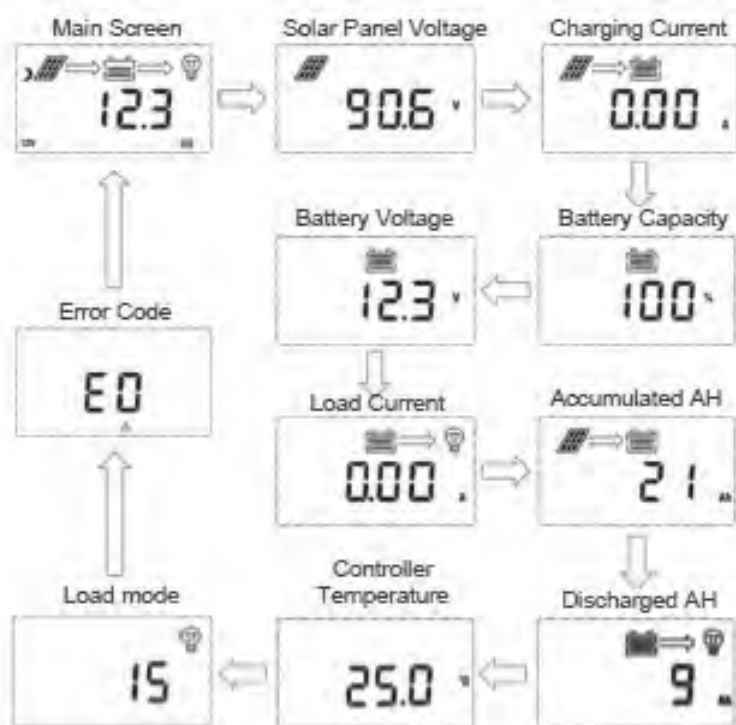
Rover is very simple to use. The controller will automatically determine the battery voltage. The controller comes equipped with an LCD screen and 4 buttons to maneuver through the menus.

**NOTE:** Please set the correct battery type the first time you use.

#### Startup Interface



#### Main Display

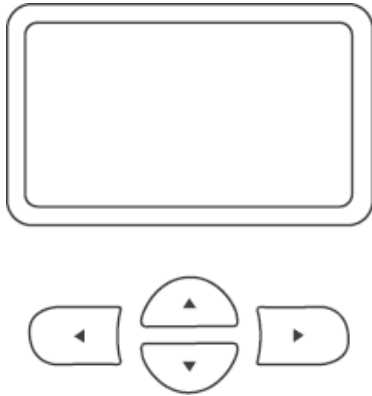


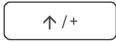

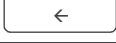

**NOTE:** The Battery Capacity (SOC%) is estimated based on the charging voltage.

## ELECTRICAL (CONTINUED)

### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

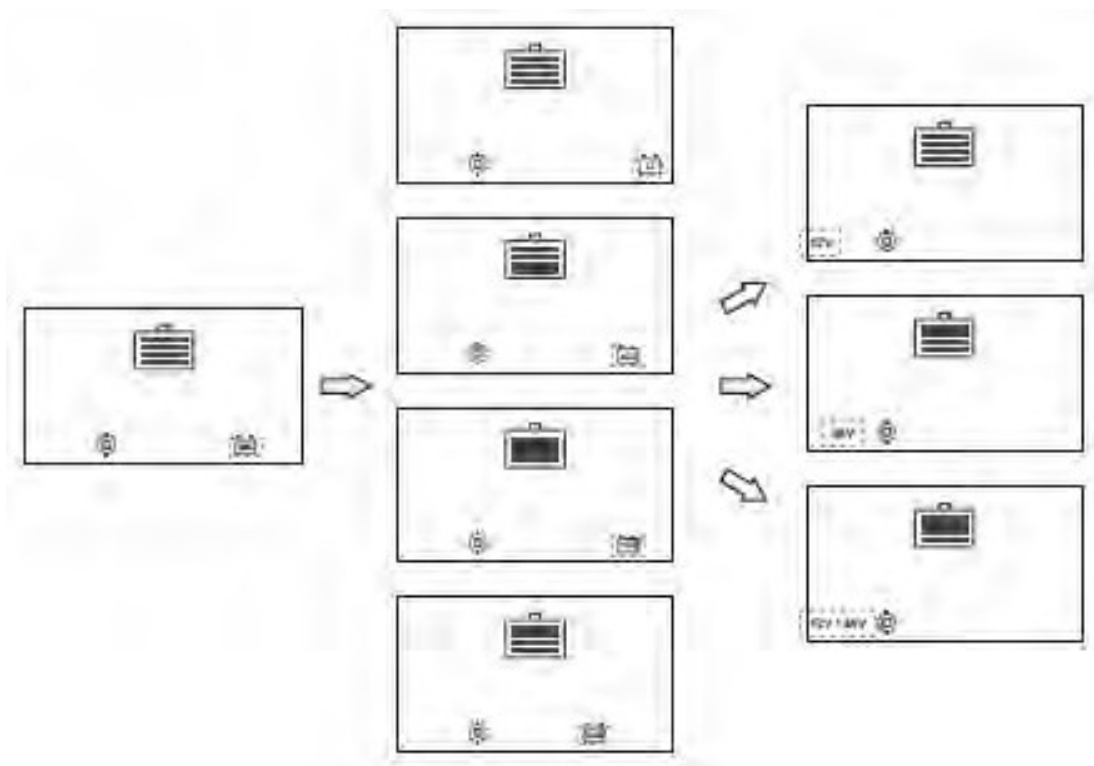
#### Operation (Continued)



	Page Up/ Increase parameter value
	Page Down/ Decrease parameter value
	Return to the previous menu
	Enter sub menu/ save parameter value/ turn load on or off in manual mode

#### Programming Battery Type

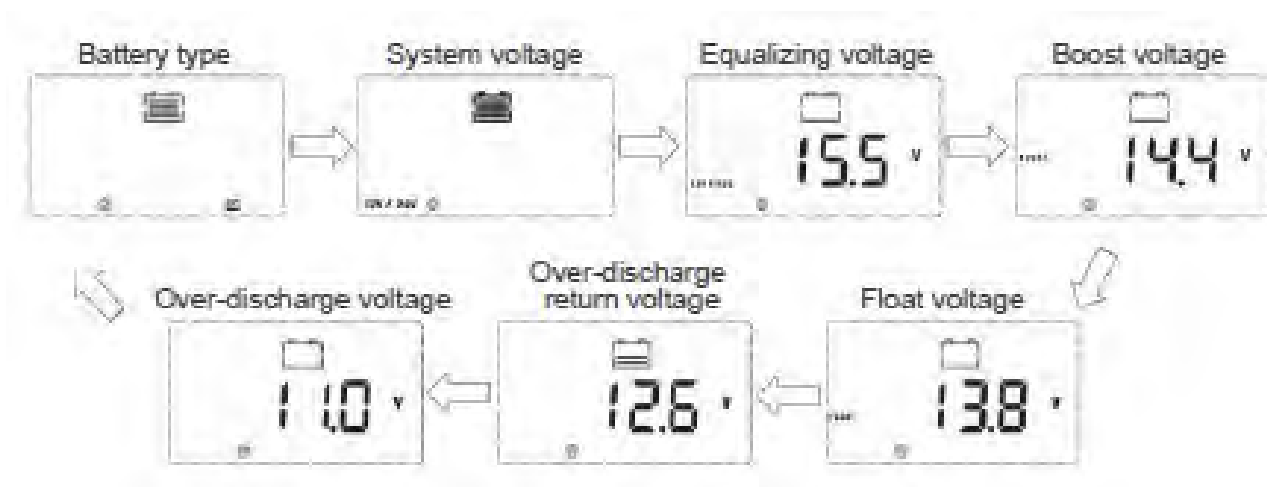
To enter the battery programming settings hover over the Battery Voltage screen and press down the Enter button .When the battery type starts to flash press the Select button to cycle through the battery types and press Enter to finalize selection .When selecting the Lithium setting the user can change battery voltage from 12V to 24V and select the charging voltage.



## ELECTRICAL (CONTINUED)

### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

#### Programming Parameters



To enter the programming interface simply press and hold the right arrow button. After entering this feature press the Enter/Right button to switch between parameters. To change the parameters, press the Up or Down button. To save the parameter press and hold the Enter/Right button.

The charging parameter setting (Equalizing voltage, Boost voltage, Floating charging voltage, over-discharge return voltage, Over-discharge voltage) are only available under the battery “USER” mode. Press and hold the right arrow to enter the programming settings and continue pressing the right arrow button until you see the desired voltage screen.

**NOTE:** Battery charging parameters can also be programmed using the Renogy BT APP. Read the corresponding user manuals for more information.



## ELECTRICAL (CONTINUED)

### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

#### Rover Protections

Protection	Behavior
PV Array Short Circuit	When PV short circuit occurs, the controller will stop charging. Clear it to resume normal operation.
PV Overvoltage	If the PV voltage is larger than maximum input open voltage 100VDC. PV will remain disconnected until the voltage drops below 100VDC.
PV Overcurrent	The controller will limit the battery charging current to the maximum battery current rating. Therefore, an over-sized solar array will not operate at peak power.
Load Overload	If the current exceeds the maximum load current rating 1.05 times, the controller will disconnect the load. Overloading must be cleared up by reducing the load and restarting the controller.
Load Short Circuit	Fully protected against the load wiring short-circuit. Once the load short (more than quadruple rated current), the load short protection will start automatically. After 5 automatic load reconnect attempts, the faults must be cleared by restarting the controller.
PV Reverse Polarity	The controller will not operate if the PV wires are switched. Wire them correctly to resume normal controller operation.
Battery Reverse Polarity	The controller will not operate if the battery wires are switched. Wire them correctly to resume normal controller operation.
Over-Temperature	If the temperature of the controller heat sink exceeds 65°C, the controller will automatically start reducing the charging current. The controller will shut down when the temperature exceeds 85°C.



## [ELECTRICAL \(CONTINUED\)](#)

### 20-Amp Solar Charge Controller (If equipped with factory solar option) (Continued)

#### System Status Troubleshooting

PV indicator	Troubleshoot
Off during daylight	Ensure that the PV wires are correctly and tightly secured inside the charge controller PV terminals. Use a multi-meter to make sure the poles are correctly connected to the charge controller.
BATT Indicator	Troubleshoot
White Slow Flashing	Disconnect loads, if any, and let the PV modules charge the battery bank. Use a multi-meter to frequently check on any change in battery voltage to see if condition improves. This should ensure a fast charge. Otherwise, monitor the system and check to see if system improves.
White Fast Flashing	Using a multimeter check the battery voltage and verify it is not exceeding 32 volts.
Load Indicator	Troubleshoot
White Fast Flashing	The Load circuit on the controller is being shorted or overloaded. Please ensure the device is properly connected to the controller and make sure it does not exceed 20A (DC).
Error Indicator	Troubleshoot
WhiteSolid	System Error. Please check LCD for Error code

### Error Codes

Error Number	Description
E0	No error detected
E1	Battery over-discharged
E2	Battery over-voltage
E3	Battery under-voltage
E4	Load short circuit
E5	Load overloaded
E6	Controller over-temperature
E8	PV input over-current
E10	PV over-voltage

## TV & STEREO

### TV Antenna

Your RV is equipped with a Winegard Air 360+. The unit is internet ready and can be upgraded easily with the Winegard Gateway for 4G LTE & Wi-Fi capabilities. A low-profile dome that requires no aiming or pointing to pick signals up. Be sure to read the full manual for your antenna for all features and functionality.



An initial channel scan must be run. Ensure that the antenna power supply is in the on position and the green light is illuminated. A scan will find any new channels that have been added in your area. A scan should be run when you travel and land in a new location. Follow the channel scan instructions for your TV when running a new scan.

- Rated up to 55 miles (compared to 35 miles for most competition)
- Filters out weak/unfunctional tv signals
- Computer printed not hand pressed antenna (this ensures consistency)
- Large antennas (Two 4G antennas, Wi-Fi extenders with the longest reach in the industry)
- Swappable SIM card, certified with AT&T and Verizon.
- Flexibility of use
- Ethernet port availability
- Functional up to 100 feet around your RV
- Unlimited users (tested over 250 users on one single device)

### Booster Switch

Alliance RV has placed the booster plate in the cargo pass through for ease when switching between over-the-air and cable TV channels. Power indicator light is green when power is on.

**NOTE:** For information on connecting to the to the AV system, see the plumbing section regarding the Nautilus Centralized Docking Station.



## TV & STEREO (CONTINUED)

### ALL TV

ALL TV is an effort to simplify the overall configuration and wiring for the AV system in your RV. We have taken steps to eliminate connection points, wall plates and the overall burden of work when trying to switch from one AV source to another. There are satellite "Home-Run" coaxial cable leads to every wall-plate location that terminate behind the Nautilus Centralized Docking Station and can be accessed by removing the access panel to the left of the panel. These are provided to the owner as there are multiple satellite provider configurations and this gives the system flexibility.

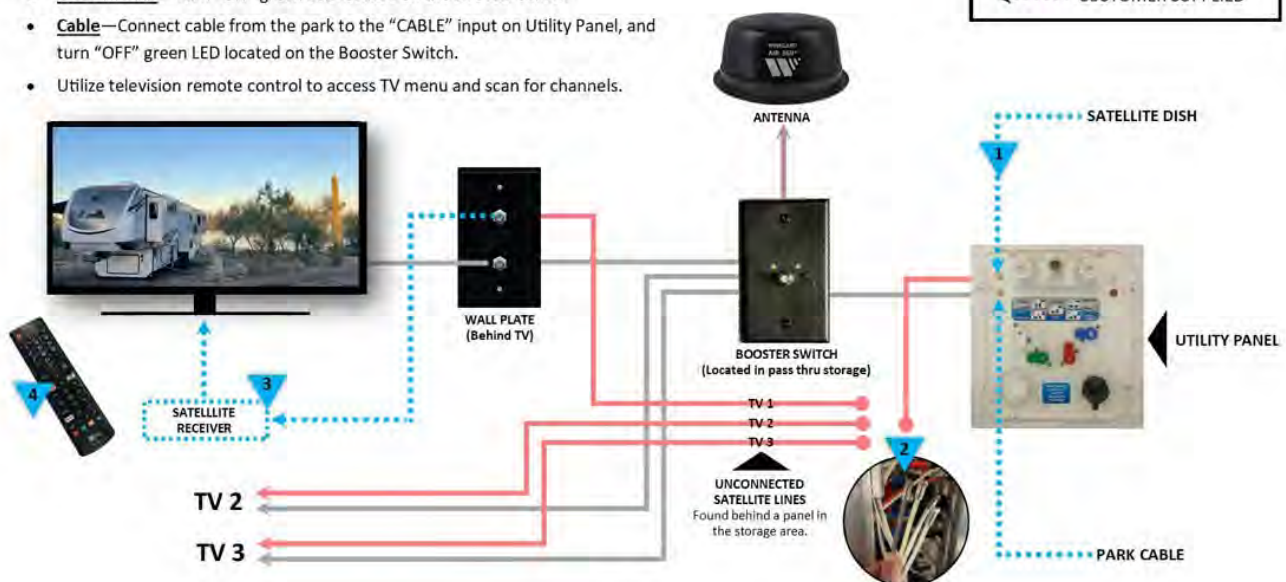
### ALLTV Wiring Diagram

#### SATELLITE TV

1. Connect coax line from Satellite Dish to "SAT" input on front of Utility Panel.
2. Connect one of the Unconnected Satellite Lines (for desired TV) to backside of "SAT" input on Water Utility Panel.  
*(Note: These satellite lines were left unconnected intentionally by the factory, so you can choose which TV you want to connect to the satellite. To connect multiple TVs with satellite an aftermarket SWM or multi-switch will be required)*
3. Connect Satellite Receiver to Wall Plate (coax cable) and TV (HDMI cable) per satellite providers instructions.
4. Utilize television remote control to select satellite input on the TV.

#### OVER-THE-AIR & CABLE TV

- **Over-The-Air**—Turn "ON" green LED located on the Booster Switch
- **Cable**—Connect cable from the park to the "CABLE" input on Utility Panel, and turn "OFF" green LED located on the Booster Switch.
- Utilize television remote control to access TV menu and scan for channels.

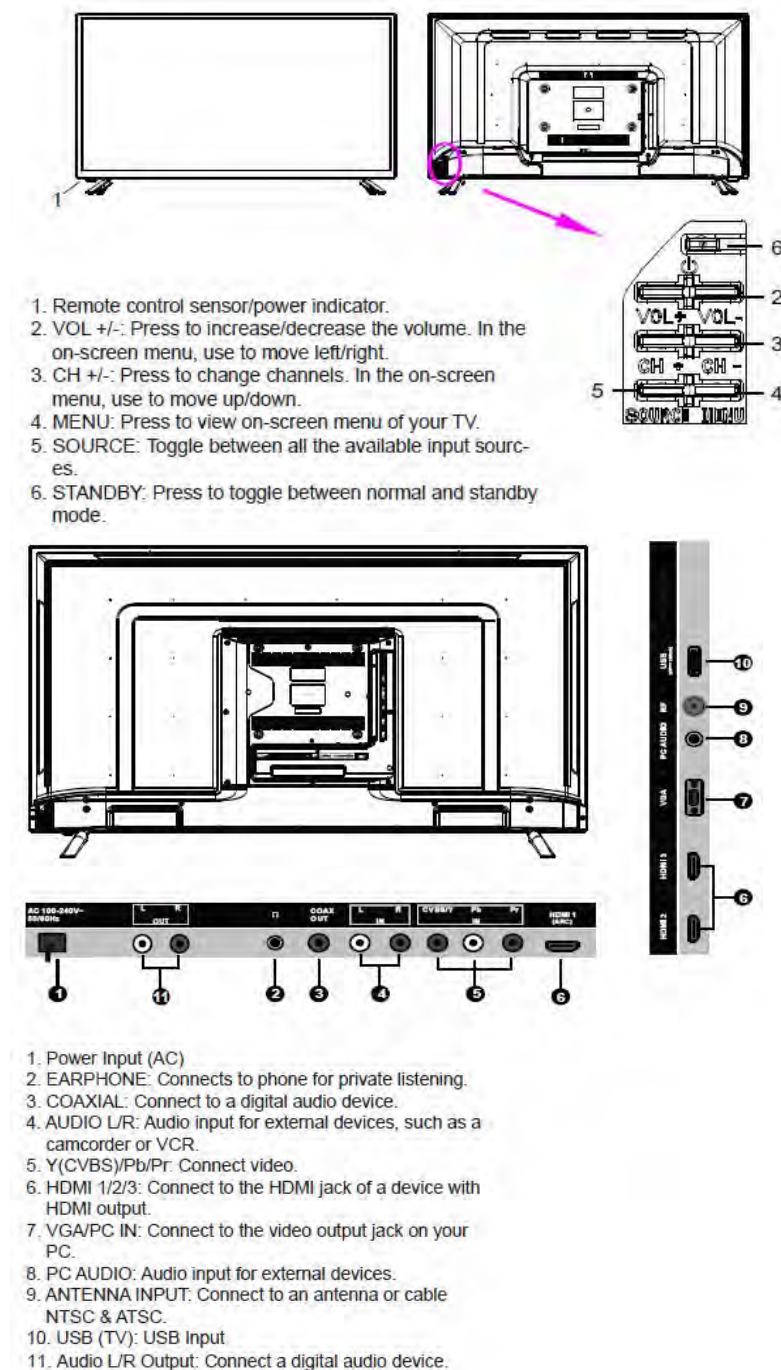


## TV & STEREO (CONTINUED)

### Television

We have equipped our Avenue 5th wheels with a 50" class TV located in the main living area and the bedroom is prepped for a TV of your choice. The information below will get you started with your TV. Please refer to your TV manuals for a full set of operational instructions.

#### Overview of back panel

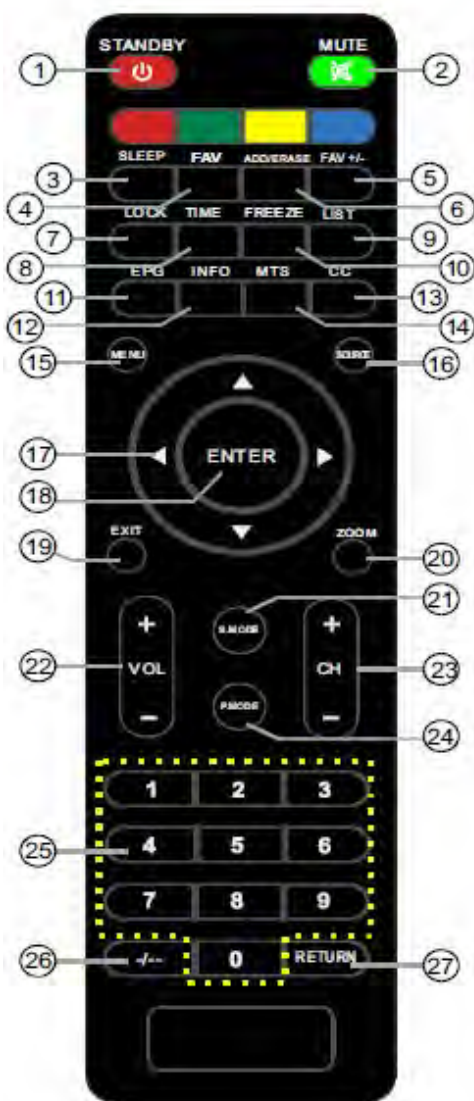




## TV & STEREO (CONTINUED)

### Television (Continued)

#### Overview of remote control



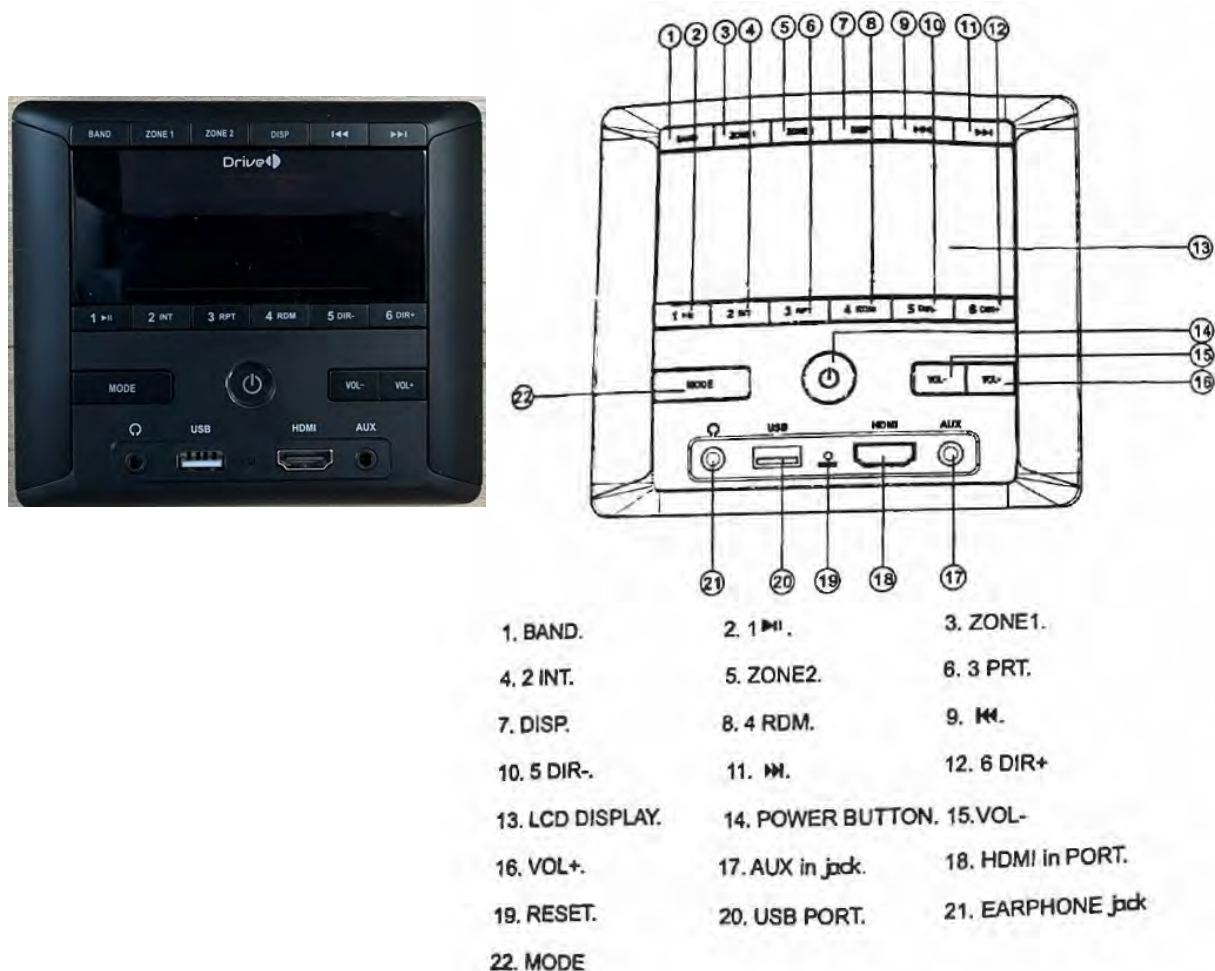
1. STANDBY: Switch LED TV when in standby mode or vice versa.
2. MUTE: Press to mute the sound.
3. SLEEP: Set the sleep timer.
4. FAV: Select favorite channels.
5. FAV +/-: Press to watch next/previous favorite channel.
6. ADD/ERASE: Add current program to the favorite channels list, or erase current program from the favorite channels list.
7. LOCK: Press to display the lock menu.
8. TIME: Press to display current time.
9. LIST: Press to display the TV program list.
10. FREEZE: Press to freeze the screen.
11. EPG: Press to display the EPG menu.
12. INFO: Display the channel information.
13. CC: Press to display the closed caption.
14. MTS: Press to select the audio channels.
15. MENU: TV system setup.
16. SOURCE: Press to change input source.
17. ARROW buttons: Use to move cursor up/down/left/right.
18. ENTER: Validation key.
19. EXIT: Press to exit all menus.
20. ZOOM: Press to change the screen scale.
21. S.MODE: Press to cycle through the different sound settings.
22. VOL +/-: Press to increase/decrease the sound level.
23. CH +/-: Press to scan through channels.
24. P.MODE: Press repeatedly to cycle through the available video picture modes.
25. Number Key (0-9): Press 0-9 to select a TV channel directly when you are watching TV. The channel changes after several seconds.
26. +/-: Press this button to enter a program number for multiple program channel, such as 2-1, etc.
27. RETURN: Return to the previous channel viewed.

See owner's manual in black Alliance RV bag for set-up instructions.

## TV & STEREO (CONTINUED)

### Basic Operation of your Stereo

Your RV is equipped with a wall mounted stereo system in the main living media center. Included in this control system are operations for AM/FM radio, clock, and Bluetooth along with ports for USB, HDMI, and AUX as well as a headphone jack. Connecting right into your RV power system, it runs on 12V DC power and has a max power output of 120 Watts and 10 Amp Max. See your stereo manual included in your Alliance bag for full details of this stereo.



## **TV & STEREO (CONTINUED)**

### **Basic Operation of your Stereo (Continued)**

#### **Turn on/off the unit**

Press **⏻** button to turn on the unit. When the unit is switched on, press and hold **⏻** button for 2 seconds to turn off the unit.

#### **Sound and setting adjustment**

Shortly press **⏻** knob into the setting menu as blow:

BASS-TRE-BAL-EQ-LOUD-BEEP-P\_VOL-DX-STEREO

In each item press VOL +/- button to set them.

**EQ:** To select one of the preset EQ (FLAT/POP/ROCK/CLAS/OFF).

**LOUD (on/off):** Turn on/off the loudness function.

**BEEP (on/off):** Turn on/off the beep sound when the button was pressed.

**P-VOL (Preset VOL):** Setting the power on volume: When the volume that turn off the unit is small than the P-VOL value. Next time turn on the unit it will keep the volume that turn off the unit. When the volume that turn off the unit is large than the P-VOL value. Next time turn on the unit the volume will be back to the P-VOL volume value.

#### **DX/LOC (Distance/Local):**

**LOC ON:** To reduce the receiving intensity when you search station. That means you can receive the station that sound is good.

**LOC OFF:** Don't reduce receiving sensitivity when you search the station. That means you can receive more stations.

#### **STEREO/MONO:**

**STEREO:** Receiving FM stereo signal.

**MONO:** Change to monochrome. When the signal is not good. Changing it to MONO mode will reduce the noise.

#### **Zone 1 and Zone 2 operation**

Press Zone 1 (Zone 2) to make the ZONE 1 (Zone 2) unable/enable.

Zone 1 (Zone 2) = enable: Press VOL +/- button can make zone 1 (zone 2) volume up/down.

Zone 1 (Zone 2) = unable: Press VOL +/- button can make zone 1 (zone 2) volume up/down.

Press and hold Zone 1 (Zone 2) button for 2 seconds to make zone 1 (zone 2) MUTE on/off.

#### **Showing Information/Clock**

Press DISP button to show the clock or information.



## **TV & STEREO (CONTINUED)**

### **Basic Operation of your Stereo (Continued)**



#### **Clock setting**

Press and hold DISP button for 2 seconds. The "HH" will be flashing. Rotating VOL knob to set the hour. Press DISP button to the "MM" will be flashing. Rotating VOL knob to set the minute. Then press the DISP button to exit.

#### **Head phone operation**

There is a 3.5mm head phone jack in the front panel. It is following the zone 1's volume.

#### **Receive a radio station**

Press MODE button to select radio mode. Then press BAND button to select desired band. Shortly press  button to auto seek up/down the desired radio station. Press and hold  button for manual tuning the frequency.

#### **Manually store station & recall preset station**

Receiving a desired station. Press and hold one of the preset button (1-6) for 2 seconds. The current station is stored into the number button. Shortly press the button (1-6) to directly listen the station that saved in the corresponding preset button.



#### **Auto store station**

Press and hold BAND button for 2 seconds to auto store stations to numeric buttons 1-6 of band 1-3.


#### **USB Operation**

When an USB driver inserted to the unit, the unit will play the WP3/MMA file automatically. If an USB drive is already inserted into the unit. Keep pressing MODE button shortly until the USB mode display appears.

#### **Select file**

Press  button to skip to the next/previous file. Hold  button to fast forward or fast reverse.

#### **Play/Pause**

Press  button to pause/playing the file.

#### **INTRO playing**

Press INT button to play first 10 seconds of each file. Press again to stop this function.

#### **Repeat function**

Press RPT button to select RPT mode.

RPT FOLD: Repeat all files of the folder.

RPT ONE: Repeat the same file.

RPT ALL: Repeat all files (default).



## **TV & STEREO (CONTINUED)**

### **Basic Operation of your Stereo (Continued)**

#### **RANDOM:**

Press RDM button to choose RDM on/off.

RDM on: Playing all files in random order.

RDM off: Turn off the random function.



#### **Directory +/- function**

Press DIR+/DIR- button to select next/previous folder to play.

#### **+10/-10 skip function**

Press and hold DIR+/DIR- button for 2 seconds to skip +10/-10 files to play.

#### **Search song**

Press BAND button. It shows NUM 0000. Rotating VOL (or directly enter number) to select the numbers then press VOL to play. Please not the 7/8/9/0 as MODE=7, =8, =9, DISP=0.

#### **AUX IN 1/2 Operation**

AUX IN 1 for front panel 3.5mm jack. AUX IN 2 for rear RCA connectors. Pressing MODE button to switch to AUX IN 1/2 source when connecting an audio signal to the unit.

#### **HDMI Operation**




The front HDMI port is pass through to the rear HDMI port. So any operation will not affect the HDMI playback.

#### **Bluetooth Operation**

##### **Pairing**

On mobile phone, select the Bluetooth item searching the Bluetooth device. "BT 105" should appear on the list, select "BT 105" and then input the password "0000" if it needs a password. When successful paired, the BT mark will be displayed on LCD.

##### **Bluetooth Audio**

Press MODE button to switch to BT MUSIC mode. It will play a song of your mobile phone automatically. Press  key to pause/play the song. Press / button to select next/previous song.

##### **Disconnect the Bluetooth**

When the mobile phone paired with the unit. Press and hold MODE button to disconnect the Bluetooth. Press and hold MODE button again to connect the Bluetooth again.

##### **BT APP operation**

###### **1. APP installation**

Using smart phone to control the unit. To install the "DRIVE BT 100" app onto your smart phone. The APP can be downloaded from Google Play (Android phone) or App Store (iPhone). Search for "DRIVE BT 100" and proceed to download. Install per the app instructions.

2. Open the BT function of the smart phone and pair with the "BT 105" and "BT 105APP".

## **TV & STEREO (CONTINUED)**


### **Basic Operation of your Stereo (Continued)**


3. Turn on the APP and connect with "BT 105 APP" then it will enter a source.

**Note:** 1) The smart phone must be Bluetooth version 4.0 or above.

2) Before turn on the APP, make sure the unit didn't pair with another device.

#### **RADIO mode**

**Auto store station:** In FM band clicking  button to auto store stations (up to 18 pcs stations).

In AM band clicking  button to auto store stations (up to 12 pcs stations).

**Manually store station:** Receiving a desired station. Press and hold one of the preset station (1-18) for 2 seconds. The current station is stored into the number. Shortly press the preset station (1-18) to directly listen to this station.

## MONITOR PANEL

This system allows monitoring of fresh water, gray water, black water, and battery levels. All functions are controlled from computer grade tact switches for easy operation. Power control of the water heater, water pump, tank heaters, some of the RV's lights, awnings and slide-outs are also done from the central monitor panel shown below.



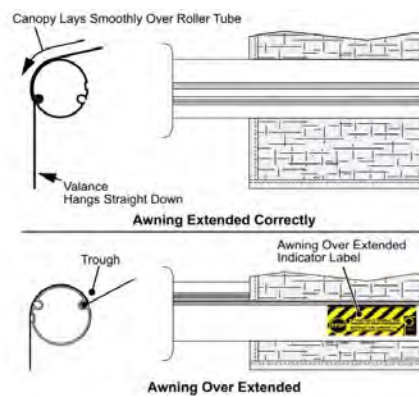
## AWNINGS

Your Alliance RV comes standard with a power awning and in some cases, depending on the floor plan, may have two power awnings installed from the factory.

### Awning Operation

#### Extending the Awning

1. First verify that the battery is fully charge and connected to the electrical system.
  2. Press and hold the awning extend button in the monitor panel.
- **NOTE:** Extension is considered complete when the fabric is completely unrolled, the valance seam is visible, and a section of the awning tube is exposed.
  - **NOTE:** To prevent damage to the arms and to reduce pooling on the canopy, it is important that the roller tube is correctly positioned when the awning is extended. Use the Extend/Retract switch to adjust the roller tube position.



- **NOTE:** The fabric should always be above the tube. However, if the extend switch is engaged too long or it is accidentally hit, the awning will roll up backwards. To correct the orientation of the fabric, press the retract button to extend it to its correct position and normal operation can resume.
- **NOTE:** Tying down the roller tube once the awing is extended will not all the free-floating support arms to work as designed and can cause damage to the awning or RV

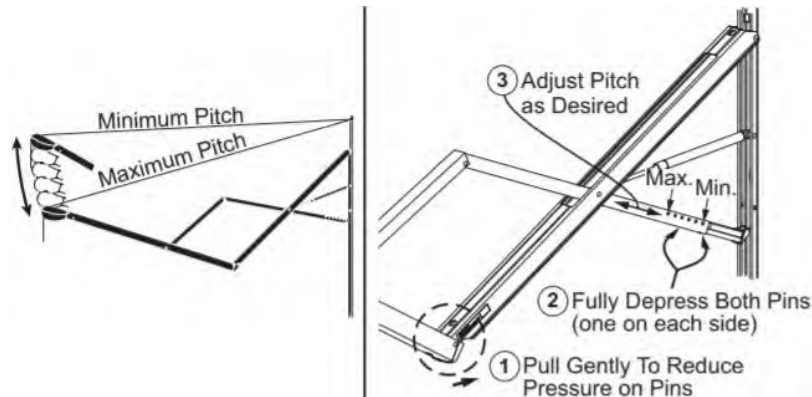
#### Retracting the Awning

1. Always check the battery first to ensure its charged and tied into the electrical system.
- **NOTE:** The awning can be retracted without resetting the pitch.
2. Press and hold the retract button until the awning is retracted completely.

## **AWNINGS (CONTINUED)**

### **Adjusting the Awning Pitch**

- The Longitude arms have 6 pitch adjustment settings. The awning can be extended and retracted in any of these positions without having to reset the pitch between uses.
- See the **NOTES** about unequal pitch settings.
- Choose the side of the awning for optimum shade or convenient water runoff.



1. Grasp the awning arm in the area shown and gently pull toward the vehicle to reduce pressure on the pins.
2. Fully depress both pitch adjustment pins located on the scissor arm. There is one on each side of the arm; these must be fully pressed in at the same time.

**Tip:** LIGHTLY pulling the arm toward the vehicle will decrease the force required to press the pitch adjustment pins.

3. Slide the arm to the desired set hole - towards the coach for a lower pitch and away from the coach for a higher pitch.

#### **NOTE: Unequal Pitch Settings**

- Do not set the individual arm pitch at more than three (3) positions different between the left and right arm. Damage to the arms and canopy can occur if the awning is retracted when the arms are set at more than 3 positions difference.
- For awnings under 12 feet: the arms must be set at an equal pitch. Damage to the arms and canopy can occur if the awning is retracted with the arms uneven.

#### **⚠ CAUTION**

**During incidents of high wind, heavy rain, or extended time away from the RV, be sure to retract the awning completely to prevent damage to the awning and the RV.**

#### **⚠ CAUTION**

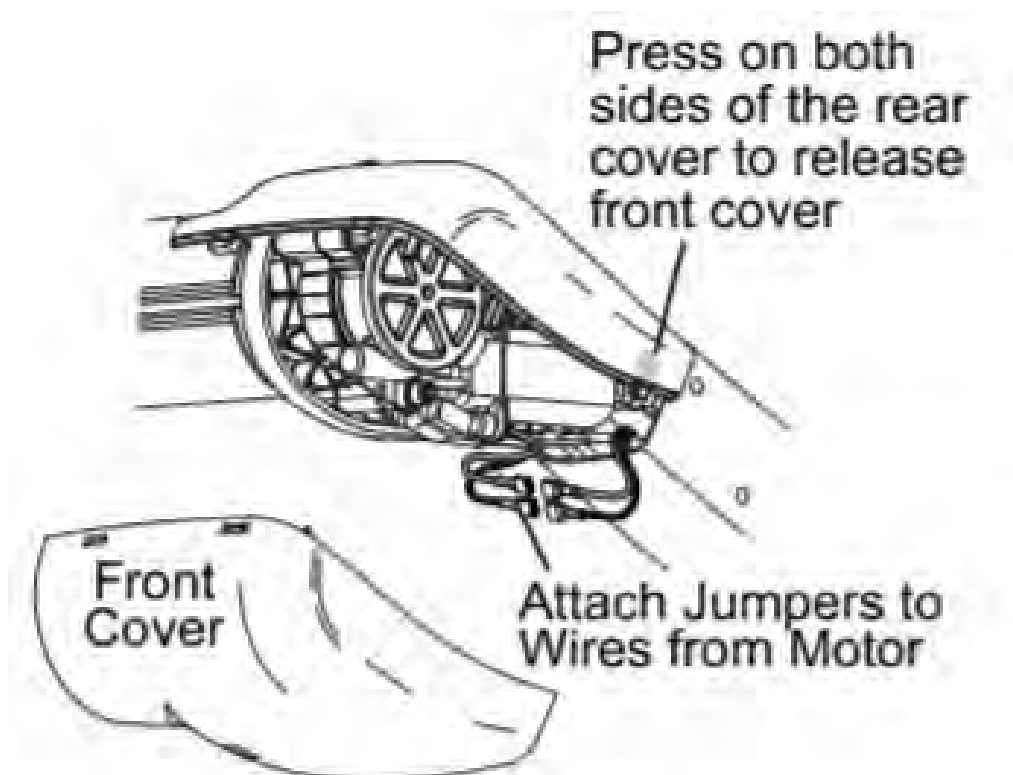
**Use care when adjusting the pitch as the awning may move abruptly.**

## **AWNINGS (CONTINUED)**

### **Emergency Operation**

If power to the vehicle is not available, the awning can be safely retracted by jumping the motor using a 10V-14V power source such as a cordless drill battery or car battery.

1. Remove the front cover. To remove, press on both sides of the rear cover until the front cover releases then lift the front cover off.
2. Detach the RED and BLACK wires from the cable to the motor.
3. Attach jumper wires to the motor wires.
4. Connect the other ends of the jumper leads to a 10-14V source. If the awning moves in the wrong direction, reverse the leads. Maintain contact throughout the retraction process.
5. When the awning is closed, remove the jumper wires, and attach the cable and motorwires. Be sure to match the wire colors.
6. Snap the front cover onto the rear cover. Hang the cover on the top and swing down until it clicks.





## **AWNINGS (CONTINUED)**

### **Awning Care**

**NOTE:** DO not use oil-based cleaners or any caustic, granulated, or abrasive type cleaners on your Carefree product.

1. One of the best ways to keep the fabric looking good and to delay the need for deep or vigorous cleanings is to hose fabrics off on a monthly basis with clear water. This practice helps prevent dirt from becoming deeply embedded in the fabric. In most environments, a thorough cleaning will be needed every 2 to 3 years.
2. When it is time for a thorough cleaning, the fabric can be cleaned while still on the awning frame.
  - Use a soft brush and warm water with soap.
3. When cleaning the fabric, it is important to observe the following:
  - Always use a natural soap, never detergent.
  - Water should be cold to lukewarm, never more than 100 Degrees Fahrenheit.
  - Air-dry only. Never apply heat to the fabric.
  - Always allow the fabric to dry thoroughly before rolling up the awning.

### **Slide-out Toppers**

Alliance RV has prepped their Avenue 5th wheels with a slide topper prep kit to allow for easy installation of a Carefree of Colorado Slide-out Topper. For assistance with parts and or questions regarding the slide-out topper prep kits, please contact your Alliance Dealer or Alliance RV.





## HEATING, COOLING & VENTILATION

### **Air Conditioning**

Alliance RV main living quarters (downstairs) will utilize a “direct cool” Coleman air conditioner. These units are mounted on the exterior roof of the RV with a combination shroud mounted on the inside ceiling of the RV. We have opted for most of the RV to be cooled with this direct cool unit as it is significantly more efficient than your typical a ducted system.

The front/upper deck of the RV will utilize a ducted Coleman air conditioner system. Due to the nature of the design in the front/upper deck containing multiple rooms and areas that can be isolated with doors, a ducted system is utilized.

Each air conditioner will be operated by its own individual thermostat.



### **Furnace**

Avenue will be heated with a SF-Q series Suburban furnace that provides 35,000 BTU's. An exterior access door allows for ease of service. The furnace is operated with the Airxcel thermostat that is tied to the main air conditioner unit. The main air conditioner unit is the control that operates the central air conditioner in the RV.

## HEATING, COOLING & VENTILATION (CONTINUED)

### Operating the Furnace

#### **WARNING**

**DO NOT OPERATE THE FURNACE WHILE VEHICLE IS IN MOTION OR BEING TOWED**

**NOTE:** During initial firing of this furnace, a burn-off of excess paint and oils remaining from manufacturing process may cause “smoking” for 5 – 10 minutes

1. Stop! Read the furnace user’s manual supplied with the furnace.
2. Turn the manual valve (if equipped) or the valve at the outside propane tank to the “OFF” position. Do not force
3. Set the thermostat above room temperature to begin blower operation. A slight delay will occur before the blower comes on. Allow blower to run for 5 minutes for combustion chamber purge cycle. If blower does not come on or stops before ignition cycle, go to shut down and contact your dealer.
4. After 5 minutes, move thermostat lever below room temperature. Blower will remain on. Wait approximately 2 minutes for blower to go off.
5. Open manual shut-off valve (if equipped) or the valve at the outside propane tank. Correct operating characteristics depend on the valve being positioned fully open. Never attempt to operate with a valve partially closed. **NOTE:** This furnace is equipped with a valve shut-off switch. If the furnace is started with shut-off switch in “OFF” position, the furnace motor will run for 30 seconds, then shut off. During this sequence, no gas will flow to the burner and the furnace will lock out requiring the user to cycle either the thermostat or unit power to reset the furnace. Ensure the shut-off switch is in the “ON” position for proper operation.
6. Set the thermostat to desired setting. If set above room temperature, blower will come on.
7. Allow 30 seconds for main burner to light after blower comes on. This furnace is equipped with an ignition device which automatically lights the burner. Do Not try to light the burner by hand.
8. If the burner does not light, repeat steps 1 thru 8.
9. If after three 3 attempts with no ignition, go to shut down and contact your dealer. Do not continue to cycle the furnace. **NOTE:** If the furnace locks out, the blower will go off in 5 minutes and remain off until it is reset by reactivating the thermostat.

## HEATING, COOLING & VENTILATION (CONTINUED)

### Operating the Furnace (Continued)

#### To Turn the Furnace Off

1. Set the thermostat to lowest setting, then turn the thermostat to the "OFF" position.
2. Turn the manual shut off valve (if equipped) to the "OFF" position.

### Thermostat

The display indicates the mode and the room temperature. When the mode button is pressed once, the thermostat will wake. When the mode button is pressed again, the mode will change. Press the up or down button to wake the thermostat, the set temperature will display, and the mode will flash. Press the up or down button again to change the set temperature. The thermostat will go back to sleep after 5 seconds of no activity.



There is a three-minute anti-short cycle for cooling. After the cooling system has been de-energized, the system will not energize again for three minutes, this is to protect the compressor on the ac unit. You can bypass the anti-short cycle function by changing the mode to off.

**NOTE:** Operating your cooling system when the outdoor temperature is below 50 degrees Fahrenheit can cause damage to your cooling equipment.

**NOTE:** Hold the mode button down for 5 seconds to change from Fahrenheit to Celsius.

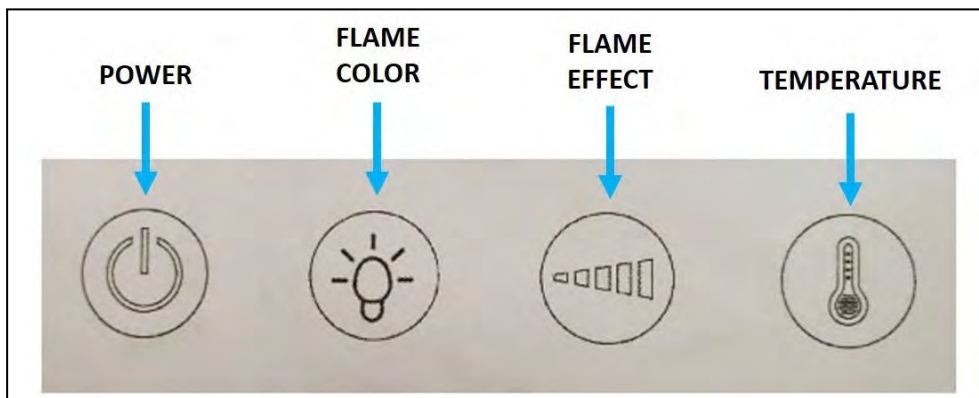
## HEATING, COOLING & VENTILATION (CONTINUED)

### Fireplace

Your RV is equipped with an electric fireplace. You will be able to use this to help knock the chilloff on cold days, this fireplace is not intended to heat your entire RV, nor will it do so.

You can operate the fireplace at the control panel on the fireplace itself or with the remote.

#### Control Panel



- Power button – Press this button to turn the fireplace on. The unit will beep. Press again to turn the fireplace off.  
**NOTE:** The fan will continue to run for 60 seconds without heat.
- Flame Color – Press this button to change the flame color. The unit will beep – press once for orange, press twice for an orangish blue, press three times for blue
- Flame Effect – Press this button to change the flame effect. The unit will beep. Press again to decrease the flame intensity. There are 6 light settings for your selection. The flame optics will go lower under the sequence of 6,5,4,3,2,1. Pressing the button again will stop the flame effect.
- Temperature – Press this button to set the temperature. The unit will beep. Press to set the desired temperature. When desired ambient temperature is reached, the heater will automatically stop heating. When the ambient temperature drops below the set point, the heater will resume heating.

## HEATING, COOLING & VENTILATION (CONTINUED)

### Fireplace (Continued)

#### Remote Control




- Fahrenheit Vs. Celsius – Press this button to toggle between the two temperature scales.
- Flame Effect - Press this button to change the flame effect. The unit will beep. Press again to decrease the flame intensity. There are 6 light settings for your selection. The flame optics will go lower under the sequence of 6,5,4,3,2,1. Pressing the button again will stop the flame effect.
- Up and Down – Press these buttons to set the desired temperature.
- Power Button – Turn the unit on and off with this button.
- Time Function – Press this button for timer function. The letters “0H” to “8H” will appear on the LED screen. “0H” means there is no set running time and the heater will run continuously. The letters “1H” thru “8H” mean the number of hours that the heater will operate before shutting off.

**NOTE:** The battery in the remote is a CR2025 battery.

## HEATING, COOLING & VENTILATION (CONTINUED)

### Ventilation

MAXXAIR fans are located in the kitchen and master bathroom areas. These high-powered fans are an industry staple that operates very easily. These fans are crucial in your RVs ventilation and assisting with minimizing condensation, especially in extended use and extreme temperature situations. Your MAXXAIR fans will be controlled by remote wall mounted controls. There is a manual override for opening and closing of the lid on the unit at the ceiling.

OPERATION OF 4 KEY WALL CONTROL		
	<b>FAN ON 1-2-3-4</b>	Turns the fan motor ON at the last selected speed and OPENS the Vent Lid.  <i>When Fan is running, cycles through four (4) fan Speeds. Once HIGH Speed is reached, the fan motor cycles back to LOW Speed.</i>
	<b>FAN OFF</b>	Turns the Fan Motor OFF and CLOSES the Vent Lid
	<b>VENT OPEN</b>	OPENS the Vent Lid  <i>Fan motor remains in previous state</i>
	<b>VENT CLOSE</b>	CLOSES the Vent Lid  <i>Fan motor remains in previous state. If fan motor is ON, the MAXXFAN enters Ceiling Fan Mode</i>

### Range Hood

The microwave situated above your stove has a built-in fan. This will be covered in the Appliances section to follow.

## **APPLIANCES**

### **Refrigerator**

You will find one of two types of refrigerators in your RV, the standard gas absorption (RV) type and an optional 12-Volt refrigerator.

#### **Gas Absorption (RV) Refrigerator**

A 13 cubic foot refrigerator, specifically designed for an RV, and can stand up to life in a trailer. A very quiet, efficient, and easy to use refrigerator with a lot of room. Be sure to read the owner's manual specific to this product.

#### **WARNING**

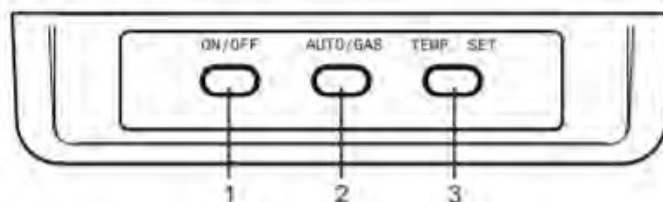
- **STORAGE OF FLAMMABLE MATERIALS BEHIND OR AROUND THE REFRIGERATOR CREATES A FIRE HAZARD. DO NOT USE THE AREA BEHIND THE REFRIGERATOR TO STORE ANYTHING, ESPECIALLY FLAMMABLE MATERIALS**
- **INCORRECT ADJUSTMENT, CHANGE OR MAINTENANCE OF THIS REFRIGERATOR CAN CAUSE PERSONAL INJURY OR DEATH. ALWAYS USE AN AUTHORIZED TECHNICIAN FOR NEEDED WORK**
- **THE REFRIGERATOR COOLING SYSTEM IS UNDER PRESSURE. NEVER TRY TO REPAIR OR RECHARGE A DEFECTIVE COOLING SYSTEM. BREATHING OF SOME OF THE COMPOUNDS IN REFRIGERATOR COOLING CAN CAUSE CANCER**
- **REGULARLY CHECK THE REFRIGERATOR VENT AREAS AND PATHWAYS BETWEEN THE VENTS TO ENSURE THEY ARE FREE FROM ANY FLAMMABLE MATERIAL OR BLOCKAGE. ALWAYS CHECK THESE AREAS AFTER ANY PERIODS OF STORAGE OR EXTENDED PERIODS OF TIME IN WHICH THE RV ISN'T USED**
- **FIRE OR EXPLOSION HAZARD. WHILE REFUELING OR PARKING NEAR A GASOLINE PUMP, BE SURE THAT THE AUTO MODE BUTTON ON THE REFRIGERATOR IS TURNED ON OR THAT ALL LP GAS APPLIANCES ARE SHUT OFF. FAILURE TO OBEY THIS WARNING COULD CAUSE A FIRE OR EXPLOSION RESULTING IN DEATH OR SEVERE PERSONAL INJURY.**



## APPLIANCES (CONTINUED)

### Gas Absorption (RV) Refrigerator Operation

When starting this refrigerator for the very first time the cooling cycle may require up to four hours of running time before the cooling unit is fully operational.



**(1) ON/OFF button** - Press the button to turn the refrigerator ON or OFF.

- Button In = Unit Is ON
- Button Out = Unit Is OFF

**(2) AUTO/GAS mode selector button** - Press the button to turn the AUTO mode ON or OFF.

- Button In = Auto Mode (Attempts Electric Mode First)
- Button Out = Auto OFF (Attempts LP Gas Mode Only)
- The system is fully automatic which means that it selects the most suitable energy source available, either 120 VAC or LP gas operation.

**(3) Temperature set button** - The thermostat has 5 settings where 1 indicates the warmest and 5 the coldest temperature setting. Press the button once to display the current setting. Continue to press repeatedly until the desired setting, e.g., 3, is shown in the LED display. This value is shown for about 5 seconds and then the fresh food compartment temperature is displayed once again.

LED PANEL INDICATIONS	STATUS INFORMATION
Display is on	Refrigerator on
Display is off	Refrigerator off
The AUTO indication dot is lit.	AUTO mode and AC operation
The AUTO and LP indication dots are lit.	AUTO mode and LP gas operation
The AUTO indication dot is lit. LP indication dot flashes slowly.	Temporary gas lockout function. Only in AUTO mode. It delays LP gas operation by 15 minutes when ignition switch is turned OFF. This is for stopping at a refueling station.
The LP indication dot is lit.	Manual LP gas operation mode.
Digits e.g.	Fresh food temperature.
	Thermostat range setting indication (1 - 5). Temporary during setting. The thermostat settings are stored automatically after 5 seconds of inactivity.
Message indications:	
"60" is displayed.	Fresh food compartment temperature is above measurement range.
"LP" is flashing (The message alternates between "LP" and the fresh food compartment temperature.)	LP gas operation lock out. (Check LP gas.)

## **APPLIANCES (CONTINUED)**

### **Gas Absorption (RV) Refrigerator Maintenance**

Properly caring for your refrigerator will give you years of trouble-free service, checking these few things periodically should be priority.

- Keep the food compartment and freezer clean
- Make sure the doors seal correctly
- Be aware of any performance changes that are not caused by overloading, weather, or gas control changes
- Make sure the air flow in the lower intake vent and the upper exhaust vent is not blocked or impeded in any way
- Make sure the area behind the refrigerator is clear, never store anything behind the refrigerator

### **Operating Refrigerator at High Altitude**

When you operate the refrigerator on propane gas at altitudes higher than 5,500 feet above sea level, you may experience reduced performance and burner outages. To avoid these possible problems, it is recommended that you operate the refrigerator on electric at altitudes higher than 5,500 feet above sea level.

### **Leveling The Refrigerator**

Leveling is one of the requirements for proper operation with absorption refrigerators. To ensure proper leveling, the vehicle needs to be leveled enough to be comfortable to live in (no noticeable sloping of floor or walls). Any time the vehicle is parked for several hours with the refrigerator operating, the vehicle should be leveled to pre-vent this loss of cooling. When the vehicle is moving, the leveling is not critical, as the rolling and pitching movement of the vehicle will pass to either side of level, keeping the liquid ammonia from accumulating in the evaporator tubing.

## APPLIANCES (CONTINUED)

### 12-Volt Refrigerator (If equipped)

An optional 12-Volt refrigerator is available in this Alliance 5th wheel. If equipped, this refrigerator uses 12-Volt battery power to power the refrigerator and allowing it to be operated when not on shore power. Please refer to your refrigerators user's manual for full details on this appliance.

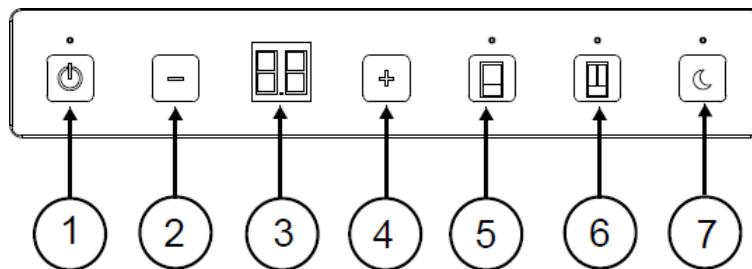
#### **⚠ WARNING**

- **STORAGE OF FLAMMABLE MATERIALS BEHIND OR AROUND THE REFRIGERATOR CREATES A FIRE HAZZARD. DO NOT USE THE AREA BEHIND THE REFRIGERATOR TO STORE ANYTHING, ESPECIALLY FLAMMABLE MATERIALS**
- **INCORRECT ADJUSTMENT, CHANGE OR MAINTENANCE OF THIS REFRIGERATOR CAN CAUSE PERSONAL INJURY OR DEATH. ALWAYS USE AN AUTHORIZED TECHNICIAN FOR NEEDED WORK**

#### **⚠ WARNING**

**FAILURE TO READ AND UNDERSTAND THE USER'S MANUAL AND ALL IT'S WARNINGS AND CAUTIONS COULD RESULT IN PROPERTY DAMAGE, DEATH OR SERIOUS INJURY**

### 12-Volt Refrigerator Control Panel



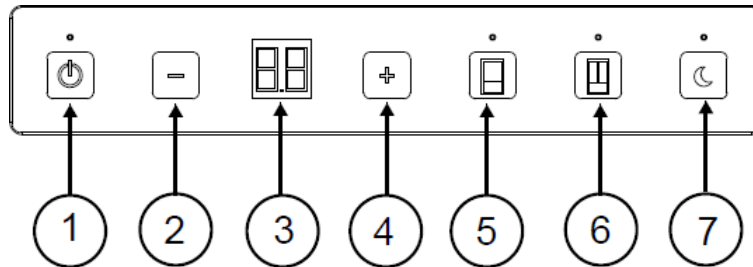
- Touch and release the On/OFF [1] button to turn the refrigerator on.
  - If the indicator light, above the button, glows solid blue, it means the refrigerator is operating correctly.

**Note:** The freezer compartment and cabinet compartment work independently of each other and both must be adjusted to their desired temperature setting.

- Touch the FREEZER COMPARTMENT [5] button to set the compartment temperature setting. The blue LED will turn ON.
  - Using the + [4] or [2] buttons adjust the temperature setting
  - The mode [3] will display the temperature setting. 1 is the warmest and 5 is the coldest.

## **APPLIANCES (CONTINUED)**

### **12-Volt Refrigerator Control Panel (Continued)**



- Touch the CABINET COMPARTMENT [6] button to set the compartment temperature setting.
  - Using the + [4] or - [2] buttons adjust the temperature setting. The mode [3] will display the temperature setting. 1 is the warmest setting and 5 is the coldest setting.
- Press any button to return the control to activate mode, the mode [3] will illuminate. The display will return to standby mode after 3 seconds.
- Touch the NIGHT MODE [7] button to set the refrigerator to night mode.
- Night mode will turn off automatically after eight hours or if you push the night mode button again to turn the blue indicator light off.
- This 8-hour night mode setting can be changed by pressing the night mode button for 3 seconds. After the 3 seconds, the default 8 hours will be shown in the display. To change this setting, press the "+" or "-", then press night mode button to make the setting go into effect.
- The new setting is archived in the memory until it is changed.
- To turn on/off DOOR LED hold the CABINET COMPARTMENT [8] button for 3 seconds

#### **Shut down:**

- To shut down the refrigerator, touch and hold the ON/OFF button [1] for 5 seconds and release.
- Once the refrigerator is turned OFF there is a 5-minute wait cycle before the compressor will turn ON.

#### **Error Codes:**

- E1: Cabinet Thermistor Error
- E2: Freezer Thermistor Error
- E3: Low/High voltage cutout
- E4: Cabinet door open (longer than 2 minutes)
- E5: Voltage too low
- E6: Ambient Thermistor Error
- E7: Cabinet Fan Error
- E8: Freezer Condenser fan failure
- E9: Fresh Food Condenser fan failure

## APPLIANCES (CONTINUED)

### Microwave

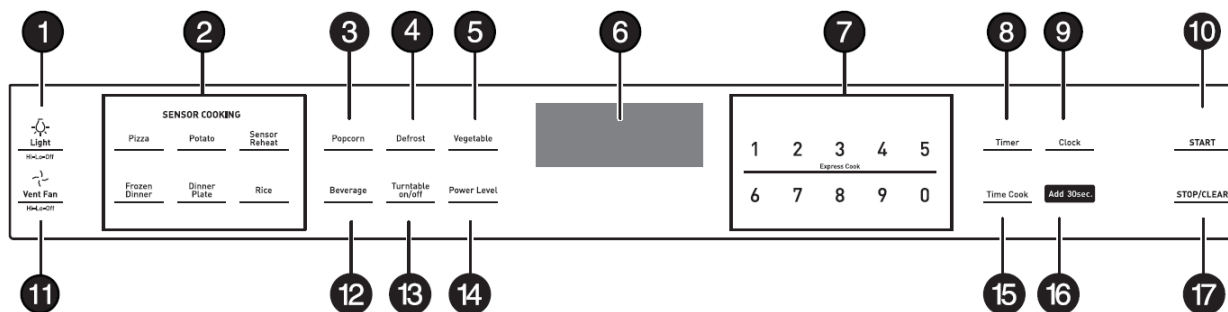
For your safety, the warnings and cautions outlined in this section must be followed to minimize the risk of fire or explosion or to prevent property damage, death, or personal

#### ⚠ WARNING

- **NEVER ATTEMPT TO OPERATE THIS MICROWAVE WITH THE DOOR OPEN, THIS CAN RESULT IN HARMFUL EXPOSURE TO MICROWAVE ENERGY, NEVER TAMPER WITH THE SAFETY INTERLOCKS**
- **DO NOT PLAY ANY OBJECT BETWEEN THE MICROWAVE FRONT FACE AND THE DOOR OR ALLOW SOIL OR CLEANER RESIDUE TO ACCUMULATE ON SEALING SURFACES.**
  - **NEVER OPERATE A DAMAGED MICROWAVE**
  - **NEVER ADJUST OR REPAIR A MICROWAVE YOURSELF**

injury.

#### Microwave Control Panel



#	ITEM	DESCRIPTION
1	Light	Press to turn on/off the light underneath your microwave.
2	Sensor Cooking	Detects humidity released by your cooking food and adjusts the cooking time based on the type and amount of food cooking.
3	Popcorn	Press to cook popcorn.
4	Defrost	Press to defrost frozen food.
5	Vegetable	Press to cook vegetables.
6	Display	In standby mode, displays the time. In cooking mode, displays cooking time, weight, and other information.
7	Number Pad	Press to enter cook time, defrost time, clock time and other information.
8	Timer	Press this button, then enter the time you want to count down.
9	Clock	Press to set or check the clock.
10	Start	In standby mode, press this button to begin cooking.
11	Vent Fan	Press to turn on/off your vent fan and remove odors from cooking.
12	Beverage	Press to heat a beverage.
13	Turntable On/Off	Press to turn your turntable on or off.
14	Power Level	Press to change your microwave's power level (1-10).
15	Time Cook	Press to enter a cooking time.
16	Add 30 Sec.	While cooking, press this button to add 30 seconds to your cooking time.
17	Stop/Clear	Press to stop the cooking process. Press again to cancel the cooking operation.

## **APPLIANCES (CONTINUED)**

### **Microwave (Continued)**

Your OTR (Over-the-Range) microwave is equipped with a vent fan and a light underneath the microwave. The fan works as a range hood to filter out smoke and other odors from cooking. Use your range hood anytime you cook, this will help maintain the air quality in your RV. Be sure to read your microwave user's manual for additional information.



### **Range/Cooktop**

Your Greystone 3-burner residential style gas range is designed for reliable and trouble-free performance.

Some important safety precautions to keep in mind.

#### **⚠ WARNING**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE**

#### **⚠ WARNING**

**IF YOU SMELL GAS:**

- 1. EXTINGUISH ANY OPEN FLAME**
- 2. DO NOT TRY TO LIGHT ANY APPLIANCE**
- 3. DO NOT TOUCH ANY ELECTRICAL SWITCH**
- 4. IMMEDIATELY CALL YOUR LOCAL EMERGENCY SERVICES**

## APPLIANCES (CONTINUED)

### Range/Cooktop (Continued)

#### **⚠ WARNING**

**READ ALL INSTRUCTIONS IN THE RANGE OWNERS MANUAL BEFORE USING THIS APPLIANCE**

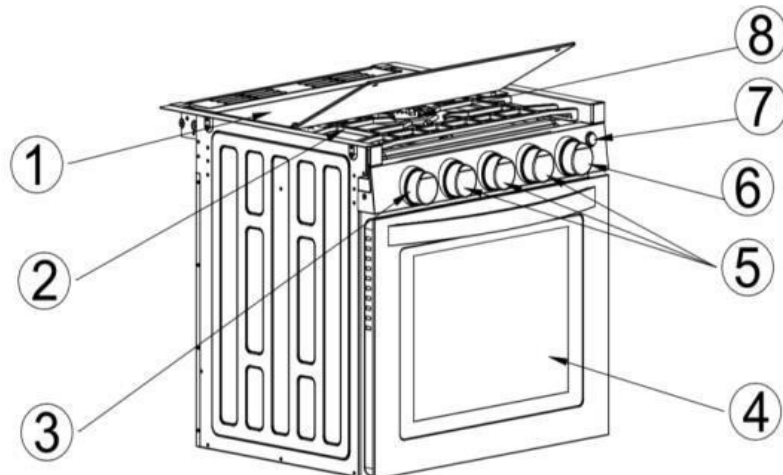
#### **⚠ WARNING**

**NEVER USE THE RANGE AS A SOURCE OF HEAT**

### Range Features

Optional Power	Gas power
BTU/HR	Left and Right Burner: 6500BTU
	Front Burner: 8000 BTU
	Oven: 7100BTU
Fuel/Power	Propane
Inlet Pressure	10" WC Min to 13.8" WC Max
Power Input	12V DC<2 Amp
Inner Volume of the Oven	17" Range Oven:35L
	21" Range Oven:51L

1	Glass Cover
2	Grill
3	Ignition Knob
4	Oven Door
5	Top Burner Control Knob
6	Oven Control Knob
7	Backlight
8	Burner





## **APPLIANCES (CONTINUED)**

### **Range/Cooktop (Continued)**

#### **Before Using Your Range**

Remove all packaging materials and wipe the surfaces of your range with a damp cloth or sponge. When you turn on a burner or the oven for the first time, smoke and odors may be present. This is normal, make sure the room is well ventilated.

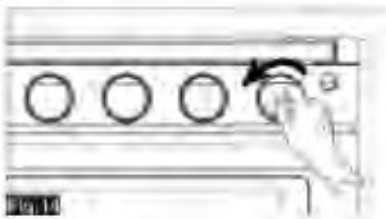
#### **Operation**

##### **Match Lighting Oven**

1. Before lighting, check to make sure all the control knobs are turned to **OFF** position.
2. Make sure the main gas tank valve is open.
3. Open the range door (Fig. 13)



4. Push and rotate the oven control knob counterclockwise to **LIGHT** position. (Fig 14)



5. Continue to push and hold in the oven control knob, then open the oven door and insert a lit, long wooden match or a butane lighter (with extension) through the spaces in the grate near the ports of the burner to light the oven burner. (Fig. 15)

## **APPLIANCES (CONTINUED)**

### **Range/Cooktop (Continued)**

#### **Match Lighting Oven (Continued)**

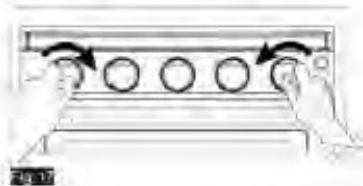


6. Continue to push and hold in the oven control knob for 5 seconds after pilot is lit. Repeat steps 4 and 5 if not lit.
7. Rotate the oven control knob to adjust burner flame to desired Level. (Fig. 16)



#### **Electronic Ignition**

1. Before lighting, check to make sure all the control knobs are turned to OFF position.
2. Make sure the main gas tank valve is open.
3. Push and turn the oven control knob counterclockwise to LIGHT position. (Fig. 14)
4. Continue to push and hold in the oven control knob for 5 seconds and rotate the ignition button clockwise repeatedly until burner lights. Repeat steps 3 & 4 if not lit. (Fig. 17)



5. Rotate the oven control knob to adjust pilot flame to desired Level. The oven pilot has been factory set and requires no further adjustment.

## APPLIANCES (CONTINUED)

### Range/Cooktop (Continued)

#### Match Lighting Top Burners

#### **⚠ WARNING**

- TOP COVER MUST BE OPEN WHEN MAIN BURNER IS IN OPERATION. BASED ON SAFETY CONSIDERATIONS, THE TOP BURNER FLAME SIZE SHOULD BE ADJUSTED SI IT DOES NOT EXTEND BETOND THE EDGE OF THE COOKING UTENSIL.

1. Before lighting, check to make sure the control knobs are turned to OFF position
2. Make sure the main gas tank valve is open
3. Turn the appropriate burner knob counterclockwise to LIGHT position. (Fig. 9)

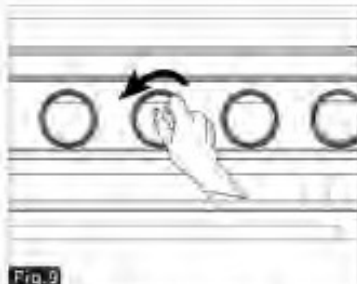
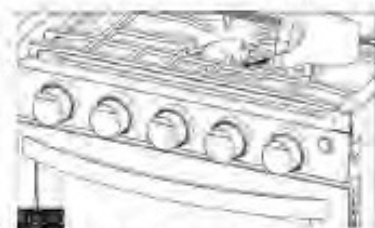


Fig. 9

4. IMMEDIATELY strike and place a lit, long wooden match or a butane Lighter with extension) through the spaces in the grate near the ports of the burner to light the burner. Repeat steps 3 & 4 to light all burners (Fig. 10)



5. Push and turn the burner control knob to adjust the flame level. (Fig 11)



Fig. 11

## APPLIANCES (CONTINUED)

### Range/Cooktop (Continued)

#### Electronic Ignition Top Burners

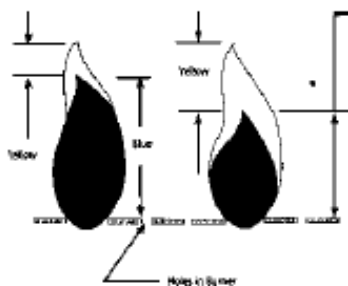
1. Before lighting, make sure the control knobs are turned to **OFF** position.
  2. Make sure that the main gas tank valve is open.
  3. Rotate the appropriate burner knob counterclockwise to **LIGHT** position. (Fig. 9)
- NOTE:** Do not attempt to light more than one burner at a time.
4. Turn the ignition knob clockwise repeatedly until burner Lights.  
(Fig. 12)



#### To Turn Off:

To extinguish the oven or top burner flame, push and turn the oven control knob clockwise to OFF position. Always turn off the gas tank valve when refueling or traveling.

**The Burner Flame:** Keep your arms and face away from above the cooking area. Flames should appear similar to the good flame shown in diagram below.



A good flame should be blue with a yellow tip. Some yellow tips on flames up to 1 inch in length are acceptable as long as no carbon or soot deposits appear. If flames are excessively yellow and

irregular, the oil residue may not be completely burned off, or the Venturi may be clogged or may not be properly positioned over the holes. Allow the appliance to cool before repositioning the Venturi over the valve and holes.

## **APPLIANCES (CONTINUED)**

### **Range/Cooktop (Continued)**

#### **Product Damage hazard**

DO NOT cook with the control knob set in the LIGHT position.  
Damage to the ignition module and burner electrodes may result.

DO NOT use oversized cookware. The pan should not be more than one inch larger than the burner grate. The maximum pan size is a 10-inch skillet. Oversized cookware will cause excessive heat build-up in the appliance top and will result in damage to the burner grate, burner and cooktop.

DO NOT use a broiler pan, griddle, or any other large utensil which covers more than one top burner at a time. This will create excessive heat which may cause melting, sooting or discoloration damage to the burner grates, range top, or utensils.

DO NOT leave an empty utensil, or one which has boiled dry, on a hot top burner. The utensil could overheat and damage the utensil or the cooking appliance.

#### **⚠ WARNING**

**WHEN USING THE OVEN, STAND AWAY WHEN OPENING THE OVEN DOOR, ESCAPING HOT AIR OR STEAM CAN BURN YOUR HANDS, FACE, OR EYES.**

#### **Troubleshooting**

<b>PROBLEM/SYMPTOM</b>	<b>POSSIBLE CAUSE/SOLUTION</b>
Surface burners do not light or do not burn evenly	Surface control knob has not been fully rotated to the LIGHT position.
	Check to see if gas valve is open. If not, open it.
	Burners are clogged. Make sure burner is off. Use a small wire, toothbrush or needle to clean burner ports and slots.
	Low gas level in tank. Refill or replace gas tank.
	Low battery power. Replace AAA battery which is under igniter cap.
	There is moisture on the burner. With burner off, dry burner completely.
Surface burner flame is yellow or orange instead of blue	Debris may be present in gas line. Let burner run for a few minutes to see if flame changes to blue.
	Humid air in the home, sometimes caused by running a humidifier, may cause flames to be burn yellow.

## **PLUMBING AND UTILITIES**

### **Centralized Docking Station**

Alliance RV uses the Nautilus Water Management System. With this system you will have the ability to perform the following functions from a centralized and easy to access location:

1. Power fill your fresh water tank for dry camping.
2. Use your pump to supply water to fixtures from fresh water tank
3. Use your pump to siphon fill or sanitize your fresh water tank from a bucket
4. Connect to city water at the camping site to supply water to fixtures
5. Winterize your plumbing lines and fixtures
6. Bypass hot water heater when winterizing to avoid water heater damage
7. Rinse black tank to help control odors and prevent sewage buildup
8. Rinse off items outside unit with a hot/cold faucet
9. Connect cable or satellite





## [PLUMBING AND UTILITIES \(CONTINUED\)](#)


### Centralized Docking Station (Continued)

#### Docking Station Handle Position and Valve Routing




### USER INSTRUCTIONS


#### Nautilus P4 Handle Position and Valve Routing Information

<b>WHITE HANDLE:</b> Receives water from water inlet on front of panel	
Sideways - water goes to pump inlet	
Down - water goes into blue handled diverter	

**BLUE HANDLE:** Receives water from the white handle valve/water inlet on front of panel

Sideways - water goes to fixtures (cold)	
Down - water will go to or come from fresh water tank	

**GREEN HANDLE:** Is an on/off flow through valve that feeds pump from fresh water tank

Sideways - water will not flow through valve	
Up - water will go to or come from fresh water tank	

**RED HANDLE:** Receives water from cold water supply line

Sideways - water goes to hot water fixtures without going through hot water heater	
Up - water goes to hot water heater	



## [PLUMBING AND UTILITIES \(CONTINUED\)](#)

### Centralized Docking Station (Continued)

#### Cable and Satellite Connection



1. For cable TV connection, connect the threaded coax from the source to the "CABLE" connection.
2. For satellite TV connection, connect the threaded coax from the satellite dish to the "SAT" connection.
3. Consult your Owner's Manual to see if the "AUX" connection has an application.

## PLUMBING AND UTILITIES (CONTINUED)

### Centralized Docking Station (Continued)

#### Filling the Fresh Water Tank – Power Fill

1. Connect garden hose to inlet labeled "CITY WATER."
2. Turn handles to PowerFILL Tank position as shown.
  - **BLUE** diverter handle should be facing down.
  - **WHITE** diverter handle should be facing down.
  - **RED** diverter handle should be facing up.
  - **GREEN** diverter handle should be facing left.



3. Connect other end of hose to water supply source.



4. Turn water supply on at source. Fresh water tank should begin to fill.

**NOTE:** Consult your Owner's Manual for tank capacity. **DO NOT OVERFILL TANK!**



5. When desired level in fresh water tank is reached, turn water off at source.
6. Disconnect garden hose from inlet on Nautilus panel.

## PLUMBING AND UTILITIES (CONTINUED)

### Centralized Docking Station (Continued)

#### Fill and/or Sanitize the Fresh Water Tank with the Pump

1. Connect garden hose to inlet labeled "CITY WATER."
2. Turn handles to "SANITIZE" position as shown.
  - BLUE diverter handle should be facing down.
  - WHITE diverter handle should be facing right.
  - RED diverter handle should be facing up.
  - GREEN diverter handle should be facing left.



3. Place other end of hose in container holding water or sanitizing solution.



4. Push "PUMP" switch to turn pump on.



**NOTE:** LED indicator light below the pump switch will be lit if pump has power.

**NOTE:** For sanitizing, a solution of 1 gallon of water and one quarter cup of household bleach should be prepared for every fifteen gallons of holding tank capacity.

## [PLUMBING AND UTILITIES \(CONTINUED\)](#)

### Centralized Docking Station (Continued)

#### Fill and/or Sanitize the Fresh Water Tank with the Pump (Continued)

5. Pump should be running and fresh water tank should begin to fill.

**NOTE:** Consult your Owner's Manual for tank capacity. **DO NOT OVERFILL TANK!**

6. When desired level in fresh water tank is reached, push "PUMP" switch to turn pump off.

**NOTE:** LED indicator light below the pump switch will not be lit.



7. Disconnect garden hose from inlet on Nautilus panel.

## PLUMBING AND UTILITIES (CONTINUED)

### Centralized Docking Station (Continued)

#### Using the Fresh water Tank for Dry Camping

1. Make sure fresh water tank has necessary supply of water.
2. Turn handles to "DRY CAMPING" position as shown.
  - **BLUE** diverter handle should be facing left.
  - **WHITE** diverter handle should be facing down.
  - **RED** diverter handle should be facing up
  - **GREEN** diverter handle should be facing up



3. Push "PUMP" switch to turn pump on.

NOTE: LED indicator light below the pump switch will be lit if pump has power.

4. Water should be available to all fixtures.

NOTE: The pump will run when a plumbing fixture is open.

5. Make sure pump is turned off when not in use.



## PLUMBING AND UTILITIES (CONTINUED)

### Centralized Docking Station (Continued)

#### Connecting to City Water

1. Connect garden to hose to inlet "CITY WATER."
2. Turn handles to "CITY WATER" position.
  - **BLUE** diverter handle should be facing left.
  - **WHITE** diverter handle should be facing down.
  - **RED** diverter handle should be facing up.
  - **GREEN** diverter handle should be facing left.



3. Connect other end of hose to water supply source.



4. Open faucet at water supply source. Water should be available to all fixtures.

**NOTE:** Refer to OEM Owner's Manual for safe operating pressures.



Over pressurizing water lines may cause damage to plumbing lines and fixtures.

## PLUMBING AND UTILITIES (CONTINUED)

### Centralized Docking Station (Continued)

#### Winterizing

1. Turn handles to "POWERFILL" position as shown.

- **BLUE** diverter handle should be facing down.
- **WHITE** diverter handle should be facing down.
- **RED** diverter handle should be facing up.
- **GREEN** diverter handle should be facing left.



2. Open low point drain(s) on RV to remove water in plumbing lines. Open both a hot and cold faucet to help drainage process.

3. Open drain plug on hot water heater to drain water if unit is equipped with hot water holding tank.

**NOTE:** Contact your dealer or manufacturer for exact location of low point drains and hot water heater.

4. Once most water has been drained from plumbing lines, turn **RED**, **BLUE**, **GREEN** and **WHITE** handles so they are at a 45 degree angle as shown.





## PLUMBING AND UTILITIES (CONTINUED)

### Centralized Docking Station (Continued)

#### Winterizing (Continued)

5. Using "CITY WATER" inlet or low point drain, blow out plumbing lines (40 PSI max) with handles still at 45 degree angle as shown. This will ensure any trapped water in plumbing harness is removed.
6. Close drains on hot water tank & low point drains.



7. Turn handles to "WINTERIZE" position as shown.

- BLUE diverter handle should be facing left.
- WHITE diverter handle should be facing right.
- RED diverter handle should be facing right.
- GREEN diverter handle should be facing left.

8. Connect a short section of garden hose to inlet labeled "CITY WATER."



## [PLUMBING AND UTILITIES \(CONTINUED\)](#)

### Centralized Docking Station (Continued)

#### Winterizing (Continued)

9. Place other end of garden hose in container holding approved winterizing solution.



**NOTE:** A short or cut off section of garden hose should help the pump to prime easier.

10. Push "PUMP" switch to turn pump on.

**NOTE:** LED indicator light below the pump switch will be lit if pump has power.



11. Pump should be running and winterizing solution should begin to flow through pump into plumbing lines and fixtures.

**NOTE:** The pump will run when a plumbing fixture is open.

12. Open one plumbing fixture, keeping it open until winterization solution appears, then close.
13. Follow above procedure until all inside & outside plumbing fixtures have been winterized hot & cold sides of plumbing fixtures.

**Important!** Make sure to run winterizing solution through hot & cold lines on exterior shower.

14. Push "PUMP" switch to turn off pump.

**NOTE:** LED indicator light below the pump switch will not be lit.



15. Disconnect garden hose from "CITY WATER" inlet.

**NOTE:** It is normal for some winterizing solution to be present as hose is being disconnected.

## PLUMBING AND UTILITIES (CONTINUED)

### Rinsing Holding Tanks / Tank Flush

1. Connect flexible sewer hose to 4" dump outlet on unit.



2. Open black waste holding tank valve and leave open to allow black tank to drain.



3. Attach a garden hose to inlet labeled "TANK FLUSH."



4. Connect other end of hose to water supply source.



## PLUMBING AND UTILITIES (CONTINUED)

### Rinsing Holding Tanks / Tank Flush (Continued)

5. Fully open faucet at water supply source (40 psi minimum). Flush tank until water appears clear in 4" discharge hose.



6. Completely close faucet at water supply source.
7. Disconnect garden hose from water source.
8. Disconnect garden hose from **"TANK FLUSH"** inlet

9. Close black waste holding tank valve.



#### **NOTE:**

**To help ensure debris does not clog tank sprayer orifices, use "TANK FLUSH" every time waste holding tank is emptied.**



## PLUMBING AND UTILITIES (CONTINUED)

### **Fresh Water System**

Your RVs freshwater system is made up of two inputs, a portable fresh water holding tank with a pressure demand 12-volt water pump and a city water connection that provides water to the system and bypasses the fresh water holding tank and the water pump to supply your fresh water from an already pressurized source. All holding tanks are equipped with electric heating pads that are controlled in the central monitor panel.

- The portable water system consists of a fresh water holding tank which is filled at the docking station (covered above). The tank is emptied/drained at a “low point” drain on the exterior beneath the fresh water holding tank. Always be sure to drain your fresh water tank between uses, and during storage in the winter, this will prevent any stagnation that can cause water to smell and/or taste bad.
- The water pump. When not hooked up to an external water supply, the RVs fresh water tank is utilized. The water is pumped from the fresh water tank by the water pump. When the power is switched on, the pump works automatically whenever a faucet is on. The water pump is self-priming and when the system pressure drops below 55psi, the water pump will energize and re-pressurize the system to that 55psi.
- This tank is equipped with a safety overflow drain. This drain will come straight out of the underbelly of the RV beneath the fresh water tank. This drain should never be plugged or obstructed. Keeping this line open for safety overflow will prevent damage that can occur from overfilling your fresh water tank.
- The city water system is powered by a water hose connected to the docking station (covered above). When connected and turned on, the system will automatically pressurize. It is always a good idea to bleed the system by turning on a hot water faucet until the water runs smoothly and there is no air present.

**NOTE:** High water pressure can damage your water system. Due to pressure inconsistencies in potential water sources, an RV water pressure regulator can be used between the hose and the connection point to ensure an always consistent water pressure coming into the RV. A safe setting is 45psi.



**Not regulating water pressure and allowing water pressure that is too high to be connected to the RV can cause irreversible damage to your RVs freshwater system**

## **PLUMBING AND UTILITIES (CONTINUED)**

### **Fresh Water System (Continued)**

Draining your fresh water system (required for winterization, covered in the centralized docking station portion of this manual, when the RV is not being used and/or is being stored in the cold or winter months), all tanks should be emptied. This will prevent damage from freezing. Every RV has low point drains in which the fresh water system can be evacuated. These low point drains will be located on the off-door side of the RV near the water heater directly beneath the RV and coming out of the underbelly. These are shut off valves that can be opened and closed with a thumb turn.

### **Waste Water System**

The waste system contains holding tanks. The quantity of tanks along with location is dictated by the floor plan of the RV. All tanks are equipped with electric heating pads that can be controlled in the monitor panel.

- Black tanks hold toilet waste. There are some things to note with black tanks. Black tanks typically will need a digester/deodorant (talk with your RV dealer for recommendations). Black tanks require RV toilet paper. RV toilet paper breaks down quicker and is specifically designed for this type of waste water system. You will find that this toilet paper breaks down more quickly and allows the waste water to flow more easily during the dumping process. A black tanks monitoring electronics can be adversely affected by debris hanging up on the reading probes. For this case, we have installed a tank flush for your black tank(s) to assist in keeping the probe indicators clean so that you have accurate readings on the tank's levels.
- Gray tanks, an integral part of the waste water system. Gray tanks hold your sink and shower waste water. Gray tanks require less maintenance due to the difference in waste produce making its way into the tank. It may be ideal to dump black tanks first and then your gray tanks, the gray tank running thru the main dump will help in keep the pipeline cleaner.

### **Toilet**

Alliance RV uses the best in class 310 series Dometic RV toilet. Each toilet is 100% factory tested to assure watertight seal in the toilet bowl before it even leaves Dometic. After installation by Alliance RV, the entire waste system is flood tested for leaks by filling the system with water to the rim of the bowl.

To use the toilet, first add water to the toilet by pressing the flush pedal only partially down. Water will flow into the bowl while the flush ball remains closed. If the flush ball moves, let up

## **PLUMBING AND UTILITIES (CONTINUED)**

### **Toilet (Continued)**

slightly on the pedal until the ball closes. Adding water to the empty bowl acts as a trap and helps prevent holding tank odors from entering the RV. Adding water is always recommended prior to flushing solids and/or toilet paper.

To flush the toilet, press the pedal down until it contacts the floor. Release the pedal after the flush is complete. When flushing liquids, quick press of the pedal for 1 to 2 seconds will do. When flushing solids, the pedal should be pressed until the contents are rinsed from the bowl. Never flush longer than needed as this will cause holding tank capacity to be used up and require more frequent black tank dumps. A small amount of water should collect in the bowl after a flush, this will create an airtight seal. Further instructions and information can be found in the toilet owners/users manuals.

### **Dumping Your Waste Tanks**

Your RV is equipped with cable termination valves. Most of these valves are going to be routed to the centralized docking station convenience center for ease of pulling. However, in some occasions, dictated by floor plan, you may find a gate valve pull handles located on the off-door side frame rail of the RV.





## PLUMBING AND UTILITIES (CONTINUED)

### Monitoring Your Water Systems

This panel monitors the fill levels of the fresh water, grey water, and black water tanks. You will also operate the heaters on the holding tanks here and as well as the power to the freshwater pump (you will also find a water pump switch in the exterior docking station) and the water heater. These switches will illuminate while in the on position.



When an individual button is pressed (box 2), the lights above the switch (box 1) illuminate to reveal the level of the selection pushed. For the battery level indicator, the individual letters mean the following:

- L = Low at 6.0 volts
- F = Fair at 11.6 volts
- G = Good at 12.1 volts
- C = Charge at 12.7 volts

The water pump is operated with the water pump switch (box 5) as well as the gas and electric options for the water heater (box 4). The gas water heater switch enables propane operation of the water heater while the electric switch enables electric operation of the water heater. Both switches being on will allow for a quicker hot water recovery. The water heater can be operated in electric or gas only by turning one of the individual switches on.

**Note:** The holding tank heaters will also be operated from the monitor panel (box 3).

## PLUMBING AND UTILITIES (CONTINUED)

### Washer / Dryer Prep

Alliance RV fifth wheels come standard with a washer / dryer prep (except 30RLS). This prep is in the front closet area of the 5th wheel. You will find both hot and cold-water connection points. Should a washer and dryer be your desire, please consult with your dealership or Alliance RV for our installation recommendations. Otherwise, you will find functional cabinet space in that area.



### Water Heater

A Suburban SW6DEL with a 6-gallon capacity supplies your RV with hot water. This water heater has a porcelain lined steel tank to fight against corrosion and foam insulation around the tank for added insulation and protection. This unit has a large diameter drain and replaceable anode rode. The anode rod is attached to the drain plug for easy replacement. This water heater features direct spark ignition and an electric element to recover an additional 6 gallons/hour when camping.

Direct spark, or electronic, ignitions feature a remote switch inside the RV (you will find this switch on your RV's monitor panel inside the RV).



## **PLUMBING AND UTILITIES (CONTINUED)**

### **Water Heater (Continued)**

When the RV is not in use or is being stored, the water heater must be drained. This will prevent damage to the water heaters lining and protect the water heater in the cold.

1. Turn the water heater off (power and gas should be disabled)
2. Turn the water pump off
3. Open all faucets and plumbing fixtures
4. Remove the drain plug from the tank (take care as this is also the anode rod on water heaters in Alliance RV product)
5. Open the pressure relief valve

#### **WARNING**

**YOU MUST READ THE USERS MANUAL FOR THIS WATER HEATER**

For full winterization instructions, see the centralized docking station section of this manual.

## FURNITURE

You will find a range of styles and sizes of furniture in your RV, below is some information on the different types of furniture you may see in your RV.

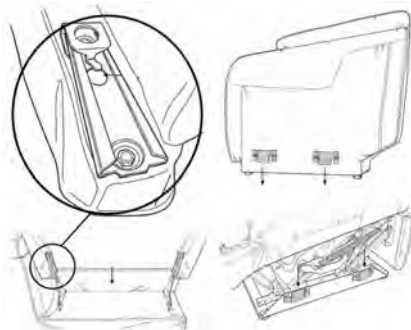
### ⚠ WARNING

**MOVING PARTS CAN PINCH, CRUSH OR CUT. KEEP CLEAR AND USE CAUTION**

#### Theatre Seating

A modular seating system features manual controls to smoothly operate the recliners which is assembled and installed by the factory for ease of use.

Every furniture component locks into place with each adjacent piece.

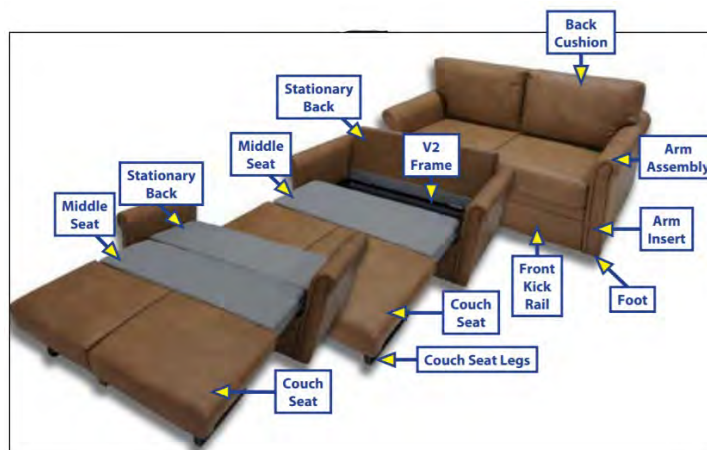


#### Sofa Seating

Two and three cushion sofas that fold out for additional sleeping.

To operate:

1. Remove the back cushions
2. Fold out the couch seat to expose the middle seat
3. Fold out the couch seat legs and set upright
4. Fold down the stationary back
5. Use back cushions as headrest or pillows



## **FURNITURE CONTINUED**

A polyurethane fabric constructed and designed for all home furniture. Polyurethanes should be cleaned with a mild water-based shampoo or soap. More stubborn stains can be cleaned with a mild, non-alcohol-based cleaning fluid. Rinse with clean water afterward. For non-liquid stains such as mustard, remove any excess before cleaning. All stains and spills must be attended to promptly.

## **CARE & MAINTENANCE**

### **Exterior**

An RV comes with a variety of surfaces that need to be cleaned and maintained, from the roof membrane to awning fabrics and beyond. Regular cleaning and maintenance of these different components is needed and will help keep the RV in the best possible condition both cosmetically and functionally.

Keep your roof clean. Use Dicor roof cleaners (RP-RC320S spray or RP-RC160Cj concentrate) or standard products such as 409, Fantastik or mild detergents are sufficient. Do NOT use harsh abrasives or products containing solvents. For stubborn spots, a rag dampened with mineral spirits is recommended. DO NOT SOAK (never apply mineral spirits directly to the roof)

When washing, start from the top and work your way down, try to stay out of direct sunlight. Start by rinsing the roof membrane with clean water to remove any loose dirt or debris. Then, using a medium bristle brush along with a mild detergent / soap and a few gallons of water, scrub the entire roof and then rinse thoroughly, a rubber squeegee may be used to direct water off the roof. A semi-annual inspection of the roof is suggested. Check the membrane for damage and check the lap sealant used at all termination areas (front, rear and side seams as well as roof attachments). The lap sealant has a limited life span, depending on the geographic region and conditions, and should be repair or replaced as needed.

**NOTE:** do not use cleaning solutions that contain solvents or abrasive pads.

Sidewalls and the front and rear skin or cap should be washed and waxed to protect and restore. Never take your RV through an automatic car wash and avoid using highly abrasive cleaning pads or high-pressure sprayers, the finish and decals/labels on your RV can be damaged by using such products. A soft bristled brush and a mild soap / detergent, if cleaned properly and frequently, will meet your needs. A normal automotive wax should be utilized when waxing your RV, we recommend a good wax two to three times a year, at minimum.

Exposure to salt can result in damage to exterior paints, finishes and other components, it is highly corrosive and should be cleaned off as frequently as possible. The more your RV is exposed to snow, rain, road salt, chemicals and saltwater, the more severe corrosion can be, therefore, a stricter cleaning and maintenance schedule may be needed.

Periodically inspect the pin box, chassis, landing gear, axles, wheels, and suspension components for spot rust. When/if you find spot rust, use a wire brush to clean the spot and touch the finish up as needed with a rustproof enamel paint. The more quickly you take care of this, the less damage it can cause and lead to bigger issues.



## **CARE & MAINTENANCE (CONTINUED)**

### **Exterior (Continued)**

Your RV is sealed all around to prevent water intrusion and damage to the RV. These seals and sealants (clear and colored) are crucial to your RV's protection from the outside environment. These seals and sealants should be inspected regularly and touched up and/or resealed as needed, we recommend a visual inspection every 3 months. Make sure to check the roof, slide-outs, the corner, termination and beltline trims and moldings on the exterior of the RV. For questions on required seals and sealants, please contact your dealer and Alliance RV. **NOTE:** your slide-outs utilize wipe, cap, and bulb seals to protect the room from the outside elements. Due to the nature of a slide-out room, these seals are not 100% watertight and should be checked very regularly for any visual signs of damage and addressed immediately when found. Spraying your slide-out seals with a silicone spray for lubrication and conditioning will help keep the slide-out seals and gaskets malleable, flexible, in good working condition. The rate of the breakdown and deterioration of the seals, sealants and gaskets on your RV is directly tied to the outside environment and the needed maintenance, cleaning and touch up of these crucial components.

### **Interior**

Keep your RV clean and well-kept during regular usage and always be sure to thoroughly clean after extended uses, long trips and before you store your RV. Sweep and mop floors as required, clean the kitchen and bathroom as you would in your own house. For appliances, sinks, countertops, toilets, showers, and flooring, you will want to use your regular household cleaners (always refer to the owner's manual of the individual component for additional information). Make sure that the RV is ventilated well when doing this, clean air is needed for your safety.

Strip your bedding down and clean as required, be sure to follow the care instructions on these soft goods. When wiping down cabinets, walls, ceilings, and other surfaces, use a mild soap / detergent and warm water in order to not cause damage to these surfaces.

## CARE & MAINTENANCE

### Maintenance Schedule

MAINTENANCE REQUIRED	FREQUENCY						
	BEFORE USE	AFTER USE	MONTHLY	3 MONTHS	6 MONTHS	YEARLY / BEFORE STORAGE	REFER TO COMPONENT OWNERS MANUAL
Heating, Cooling & Ventilation (AC, Furnace, Vents)				Inspect & Clean			Yes
Axles	Inspect						Yes
Brakes	Test			Adjust			Yes
Entry Steps			Lubricate				
Landing Gear					Clean & lubricate		Yes
Pin box & Hitch Equipment	Inspect		Lubricate				
Safety Chains	Inspect						
Slide-outs		Clean Roof	Run "In / Out"				
Tires	Inspect						Yes
Battery	Inspect						Yes
Electrical Cords / Receptacles	Inspect						
Exterior Finish (Roofs, Walls, Slide-outs, Chassis)				Wash	Wax		
Exterior Moldings & Trims					Inspect		
Locks and Latches			Lubricate				
Roof Seams and Attachment Points					Inspect		
Seals					Inspect		
Fresh Water System		Drain				Sanitize / Winterize	
Waste System		Dump / Flush				Drain	
Water Heater		Drain				Flush / Winterize	Yes
Propane (LP) System						Test for Leaks	
Alarms / Detectors (Smoke, CO/LP)	Test						Yes

## VENDOR WARRANTY AND CONTACT INFORMATION

Below you will find a listed supplier, related warranty information and warranty / tech support contact information should you need it. Some of this information may change without notice. Alliance RV will make all efforts to keep this manual as up to date as possible. **This is a summary of the component manufacturers warranty only. For details on individual component warranties, see their warranty information.**

COMPONENT	BRAND	WEBSITE	CONTACT #	EMAIL	MANUFACTURER WARRANTY
Microwave	Insignia	<a href="http://www.insicniaproducts.com">www.insicniaproducts.com</a>	(877) 467-4289	<a href="https://www.insicniaproducts.com/email-us">https://www.insicniaproducts.com/email-us</a>	1-Year Limited
Oven / Cooktops	Greystone Way Interglobal Network	<a href="http://www.wavinterglobal.com">www.wavinterglobal.com</a>	(574) 971-4490	<a href="mailto:warrantyclaim@wavinterglobal.com">warrantyclaim@wavinterglobal.com</a>	1-Year Limited
Gas Absorption Refrigerator	Dometic	<a href="http://www.dometic.com">www.dometic.com</a>	(574) 294-2511	<a href="mailto:customersupportcenter@dometic.com">customersupportcenter@dometic.com</a>	2-Year Limited
12-Volt Refrigerator	Norcold / Thetford	<a href="http://www.thetford.com">www.thetford.com</a>	(800) 543-1219	<a href="mailto:info@thetford.com">info@thetford.com</a>	1-Year Limited
Water Heater	Suburban	<a href="http://www.airxcel.com">www.airxcel.com</a>	(423) 775-2131	<a href="mailto:rvpsupport@airxcel.com">rvpsupport@airxcel.com</a>	2-Year Limited
Axles	Dexter Axle	<a href="http://www.dexteraxle.com">www.dexteraxle.com</a>	(574) 295-7888	<a href="mailto:warranty@dexteraxle.com">warranty@dexteraxle.com</a>	1-Year Limited (Grease & Oil Seals) 2-Year Limited (Electric/Hydraulic Brake Actuators) 5-Year Warranty (Axles and Suspension System)
Chassis / Frame	Lippert Components	<a href="http://www.lci1.com">www.lci1.com</a>	(574) 537-8900	<a href="mailto:customerservice@lci1.com">customerservice@lci1.com</a>	1-Year Limited
Suspension System	MORryde	<a href="http://www.morryde.com">www.morryde.com</a>	(574) 293-1581	<a href="mailto:warranty@morryde.com">warranty@morryde.com</a>	1-Year Limited
Tires	Lionshead	<a href="http://www.lionsheadtireandwheel.com">www.lionsheadtireandwheel.com</a>	(574) 533-6169	<a href="mailto:bscott@lionsheadtireandwheel.com">bscott@lionsheadtireandwheel.com</a>	1-Year Guarantee / 5-Year Limited
Converter	Progressive Dynamics	<a href="http://www.progressivedyn.com">www.progressivedyn.com</a>	(269) 781-4241	<a href="mailto:sales@progressivedyn.com">sales@progressivedyn.com</a>	1-Year Limited
Inverter	Renogy	<a href="http://www.renogy.com">www.renogy.com</a>	(909) 287-7111	<a href="https://renogy.force.com/helpcenter/s/contact-support">https://renogy.force.com/helpcenter/s/contact-support</a>	1-Year Limited
Stereo	Way Interglobal Network	<a href="http://www.wavinterglobal.com">www.wavinterglobal.com</a>	(574) 971-4490	<a href="mailto:warrantyclaim@wavinterglobal.com">warrantyclaim@wavinterglobal.com</a>	1-Year Limited
TV	Way Interglobal Network	<a href="http://www.wavinterglobal.com">www.wavinterglobal.com</a>	(574) 971-4490	<a href="mailto:warrantyclaim@wavinterglobal.com">warrantyclaim@wavinterglobal.com</a>	1-Year Limited
TV Antenna	Winegard	<a href="http://www.winegard.com">www.winegard.com</a>	(800) 288-8094	<a href="https://winegard.com/support">https://winegard.com/support</a>	2-Year Limited
Awnings	Carefree of Colorado	<a href="http://www.carefreeofcolorado.com">www.carefreeofcolorado.com</a>	(303) 469-3324	<a href="mailto:customerservice@carefreeofcolorado.com">customerservice@carefreeofcolorado.com</a>	1-Year Limited
Roof Vents / Fans	MaxxAir	<a href="http://www.airxcel.com">www.airxcel.com</a>	(423) 775-2131	<a href="mailto:rvpsupport@airxcel.com">rvpsupport@airxcel.com</a>	2-Year Limited
Furniture	Lippert Components	<a href="http://www.lci1.com">www.lci1.com</a>	(574) 537-8900	<a href="mailto:customerservice@lci1.com">customerservice@lci1.com</a>	1-Year Limited
Mattress	Lippert Components	<a href="http://www.lci1.com">www.lci1.com</a>	(574) 537-8900	<a href="mailto:customerservice@lci1.com">customerservice@lci1.com</a>	1-Year Limited
Air Conditioner	Coleman	<a href="http://www.airxcel.com">www.airxcel.com</a>	(423) 775-2131	<a href="mailto:rvpsupport@airxcel.com">rvpsupport@airxcel.com</a>	2-Year Limited
Fireplace	LaVanture	<a href="http://www.lavanture.com">www.lavanture.com</a>	(800) 348-7625	<a href="mailto:service@alliancerv.com">service@alliancerv.com</a>	1-Year Limited
Furnace	Suburban	<a href="http://www.airxcel.com">www.airxcel.com</a>	(423) 775-2131	<a href="mailto:rvpsupport@airxcel.com">rvpsupport@airxcel.com</a>	2-Year Limited
Roof Membrane	Dicor	<a href="http://www.dicor.com">www.dicor.com</a>	(574) 264-2699	<a href="mailto:dmetzger@dicor.com">dmetzger@dicor.com</a>	15-Year Limited
Leveling System	Lippert Components	<a href="http://www.lci1.com">www.lci1.com</a>	(574) 537-8900	<a href="mailto:customerservice@lci1.com">customerservice@lci1.com</a>	1-Year Limited
Slide-out Systems (Electric)	Lippert Components	<a href="http://www.lci1.com">www.lci1.com</a>	(574) 537-8900	<a href="mailto:customerservice@lci1.com">customerservice@lci1.com</a>	1-Year Limited

**CONTACT ALLIANCE RV IF YOU HAVE TWO FAILED SERVICE ATTEMPTS  
(OR IF YOU'RE UNSATISFIED)**

**EMAIL: [service@alliancerv.com](mailto:service@alliancerv.com)**

**PHONE: (574) 226-0140**