2020

OWNER'S MANUAL

AVIA

nüCamp

nucamprv.com

WARNING

This User Manual contains important safety information and features for the safe operation of this vehicle. Before loading or towing this trailer, you must read this user manual. Failure to comply could result in serious injury or death.

DISCLAIMERS

This Manual. All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of publication approval. If new materials and production techniques are developed that can improve the quality of its product, or material substitutions are necessary due to availability, nuCamp reserves the right to make such changes. nuCamp further reserves the right to make changes to the equipment, form, technical system or layout of each camper as it sees fit to be innovative and beneficial. Therefore, no legal claims may be filed against nuCamp based on the contents of this manual. nuCamp is not responsible for the observance or nonobservance of this instruction manual. Any given specifications may be subject to change without notice. Recorded tongue weights, overall weights, fuel, liquid capacities and dimensions may also be approximate.

Procedures. All operating procedures in this manual are designed as typical under normal conditions. Safe operation and use of any nuCamp is the sole responsibility of the owner. nuCamp will not be liable for any injury or loss sustained from the observance or nonobservance of any procedures or safety warnings supplied in this manual or in any third-party manuals or guides supplied within the unit.

External Websites. Regarding third-party websites listed or referred to at any place in this manual, nuCamp provides this information "as is" for consumer ease of use and troubleshooting. No liability whatsoever shall be assumed by nuCamp in connection with these websites, be it information, external links, third-party links, errors, omissions, inaccuracies or any other content on the websites. These websites are for use strictly at your own risk. Most of the information is meant to be of a general nature and may not pertain to your circumstances. nuCamp has no control over third-party vendors and supplier websites and therefore will assume no responsibility for any type of loss or injury sustained from its actions, omissions or negligence. It is not considered legal advice.

Endorsements. Any commercial products, processes or services by trade name, trademark, or other manufacturer referenced within third-party internet links does not imply in any way endorsement or recommendation by nuCamp. Furthermore, nuCamp does not have control over any information found at third-party links, assumes no responsibility over availability or content of third-party sites and cannot offer warranties, guarantees, or endorsements of any products, service or information offered by such links.

Optional Items. Optional items may be available on some or all floorplans and models. Additionally, some optional items can only be included during the manufacturing phase and cannot be added later to the trailer. The inclusion of optional items referenced or information in this manual does not imply or suggest the availability, application suitability, or inclusion for any specific unit.

COPYRIGHT

INTRODUCTION

WELCOME

Thank you for purchasing the AVIA Travel Trailer, our most recent addition to the nuCamp family of products. We are excited to be able to contribute to your enjoyment of recreation wherever you may go. You have joined an elite group of people, and as you begin making great memories using your new nuCamp trailer we wish you many exciting and adventurous days of camping. To ensure maximum enjoyment, full understanding of your camper and its operations, please discuss questions or concerns with your dealer before using your camper for the first time.

BEGINNING YOUR JOURNEY

Please have a comfortable seat in your newly purchased camper and take some time to review this Owner's Manual. Because we are continuously improving the technical functions and innovating products on our units, even experienced nuCamp customers will find new and exciting information about the products and components included in this unit.

Pay very close attention to the boxed safety warnings, labeled DANGER, WARNING, CAUTION, and NOTICE, throughout this manual and located on your AVIA camper. These labels contain vital information pertaining to your safety and well-being. Lives depend on your understanding of this information to ensure proper reactions to safety hazards arising from critical situations.

Please review the separate instruction manuals for the appliances, special equipment and accessories included in the owner packet supplied by nuCamp. These instruction manuals also include important warranty registration information and procedures that you must follow to register products installed on your camper. Please refer to the item-specific manuals for warnings and safety features of each individual component and accessories.

OUR MISSION

At nuCamp we are firstly a group of men and women that care deeply for one another, honor one another, are transparent, build relationships to change people's lives, esteem one another higher than ourselves and live out servant leadership.

Secondly, we strive to build and distribute products that are innovative, high-quality and superb in function, reflecting integrity and honesty.

FOREWORD

ABOUT THIS MANUAL

The Operator's Manual for your new AVIA travel trailer is designed to answer the most frequently asked questions regarding the operation, function, and care of the many systems that make modern camping a pleasure.

For more complete instructions regarding safety, maintenance and operation of the items included in your camper, carefully read the booklets supplied by the component manufacturers. All information contained in this manual may not relate to your specific model; however, booklets supplied by the component manufacturers and included in your Owner's Packet will provide any additional information needed. You are responsible for reading, understanding and following the instructions pertaining to the tow vehicle as well as the instructions in this manual.

All information in this handbook should be considered a permanent part of the trailer and should be transferred to the new owners if the trailer is ever sold.

Optional items may be available on some or all models. Additionally, some optional items can only be included during the manufacturing phase and cannot later be added to the trailer. The mention of optional items in this manual does not imply or suggest the availability, application suitability, or inclusion for any specific unit.

All operating procedures in this manual are designed as typical under normal conditions. Safe operation and use of any nuCamp camper is the sole responsibility of the owner. nuCamp will not be liable for any injury or loss sustained from the observance or nonobservance of any procedures or safety warnings supplied in this manual or in any third-party manuals or guides supplied within the unit.

This manual may have occasional tips to enhance your experience of the recreational and camping lifestyle. While this may be helpful, this manual is not designed as a camping guide but rather as a guide in how to operate your trailer for maximum enjoyment.

This manual does not in any way create a warranty, whether express or implied. The information in this manual is not meant in any way to supplement, modify, or change the terms and conditions of your trailer's warranty, or any warranties offered on any component by its manufacturer.

At nuCamp we actively work to provide improved and better information about the use of our products. If you have helpful information that you think may benefit fellow nuCamp product owners, you may submit it via e-mail to customerservice@nucamprv.com with a subject of "Owner's Manual" and your submission will be considered for the next update.

GETTING STARTED

DEALER RESPONSIBILITY

When you purchase your camper, nuCamp expects the following of the dealer:

1. Perform a Pre-Delivery Inspection (PDI). The inspection must include the testing of all systems and components installed in your new camper. Your camper must pass the PDI test before it is eligible to be sold to you. nuCamp does not control dealer actions and is not responsible for an incomplete PDI.
2. Give you a complete tour of your camper's appliances and features and teach you how to operate each of the systems.
3. Prepare your camper for your first camping trip with all equipment in running order and ready to be used.
4. Provide you, the owner, access to this Owner's Manual.
5. Provide and explain to you the nuCamp One Year Limited Warranty, Three Year Limited Structure Warranty and the Warranty Claim Procedure.
6. Register your One Year Limited Warranty online at www.nucamprv.com. You should receive a confirmation email when the warranty has been activated.
7. Provide you with two sets of keys and all remotes needed to operate select appliances and components in your camper.
8. Provide you with the complete Owner Package which has all component user manuals and other complimentary items from nuCamp. This is located within the trailer when shipped from nuCamp.
9. Assist you in locating model and serial numbers of each installed component and walk you through activating the manufacturer warranties.
10. Discuss and plan with you what to do in case of service needed on your camper, whether local or abroad. This includes repairs not under warranty.
11. Service the full nuCamp lineup. Please note: A nuCamp dealer that does not sell truck campers is not required, nor expected to, perform work on said product. Furthermore, should a nuCamp dealer be booked with service work for a considerable amount of time, the only event where the nuCamp dealer is required to accommodate repair work immediately would be when the owner is traveling and away from home.

OWNER RESPONSIBILITY

Before, during and after the purchasing process of your new camper, nuCamp expects the following of you, the owner:

1. You fully inspected the entire camper for any kind of defects and have found it acceptable, clean, and completely free of damage.
2. You acquired access to this Owner's Manual.
3. You were shown how to operate each feature and function of your new camper and are fully aware of the maintenance schedule required to keep your camper in excellent operating order.
4. You have agreed to be responsible to properly maintain your new purchase and perform any needed service in a timely manner.
5. You have read and understood all safety messages in various locations on the camper and in this manual. You have agreed that nuCamp is not liable for any warranty coverage or compensation for injury or loss sustained through the disregarding of safety messages, regardless of your awareness. You are fully responsible.
6. With dealer assistance, you have registered all warranties of installed components. To avoid loss of coverage it is crucial that you activate each warranty registration in the prescribed time limit.
7. You had a chance to review, read and fully understand the nuCamp One Year Limited Warranty, Three Year Limited Structure Warranty and the Warranty Claim Procedure.

8. You received a copy of One Year Limited Warranty before your purchase was completed. You read and agreed by written signature to the terms and conditions contained therein.
9. You had any and all questions answered by the dealer.
10. You have responsibly protected yourself and others by acquiring insurance coverage on your camper. Consult your insurance agent for appropriate coverage before leaving the dealership with your new camper.

OWNER'S PACKET

An Owner's Packet is included in every camper manufactured by nuCamp. This packet includes all your component user manuals and warranty cards. The Packet and its contents (except for complimentary items from nuCamp) should be considered a working part of the camper equipment and must be passed to new owners at any sale.

WARRANTY REGISTRATION

For the best warranty service please be sure that your warranty registration has been submitted to the Warranty Department at nuCamp. While nuCamp expects your dealer to submit the registration, it will ultimately be in your best interest to confirm that the warranty registration request has happened. If you have not received confirmation of the completed warranty registration form, please contact the nuCamp Warranty Department by phone at 844-823-9112 or email at warranty@nucamprv.com and request confirmation. Have your camper's Vehicle Identification Number (VIN) available when you contact us.

COMPONENT REGISTRATIONS

Most installed appliances, features and components included with your camper will have a warranty of some type and some may be eligible for coverage under the nuCamp One Year Limited Warranty. Refer to the included user manuals in your Owner's Packet for any information the supplier has listed.

FIRE SAFETY PLAN

In case of fire or weather emergencies, it is vital to have a Safety Plan developed for all occupants. The plan should be rehearsed and frequently practiced. Review the safety warnings in the General Safety portion of this manual for details. Pay attention to door and emergency exit window locations, fire safety and how to operate safety equipment in your camper.

Educate all occupants on the following:

1. The meaning of each alarm equipped in the camper.
2. The designated outside meeting place a safe distance away from the camper where everyone gathers in an emergency. This should be chosen at each stop after parking your camper.
3. The instructions for using the emergency exits. Practice finding the exit blindfolded. In case of a real fire, smoke may obstruct your vision.
4. The safety procedure in the event of a fire, smoke or gas: stay low to the floor, avoid breathing in the fumes and exit immediately.
5. The safety procedure in the event clothing catches fire: Stop, Drop and Roll. STOP, don't run, DROP to the ground, and ROLL back and forth until the fire is extinguished. Use your hands to shield your face from the fire. Running will only increase a fire.
6. The location of emergency phone numbers and the conditions under which emergency services should be called
7. The contact information for a friend or relative who will serve as an emergency contact. Make this information available to all your family members.

Consult your local fire department for assistance in compiling a comprehensive Safety Plan for your specific camper.

EMERGENCIES

Emergency Preparation. Keep an emergency first aid kit in your camper. A separate kit with essential tools and supplies should also be compiled. These may come in handy in some emergencies as well as for any type of troubleshooting that may arise. The tools suitable for your needs may depend largely on how much boondocking or cold weather camping you do. Boondock camping may take you far away from the nearest service station and so be prepared to do some of your own maintenance. A common list of items needed for emergencies, troubleshooting and maintenance is as follows:

Adjustable Wrench
Allen Wrenches
Car Jack (2-ton)
Cordless Drill
Drill Bits & Tips
Duct Tape
Emergency Blankets
Extra Batteries
Extra Fuses
Flashlight
Hammer
Hand Cleaner
High Visibility Cones
Ice Scraper
Jumper Cables
Leather Gloves
Level
Lug Wrench
Multi-Bit Screwdriver
Multimeter
Pliers
Raincoat
Road Flares
Shop Rags
Socket/Ratchet Set
Tape Measure
Thread Seal Tape
Tie Down Straps
Tire Pressure Gauge
Tire Repair Kit
Tow Rope (5-ton capacity)
Traction Aid (Sand)
Wheel Chocks
Wire Cutters
Zip Ties

Weather Emergencies. When it comes to recreational activities, weather can be the number one factor affecting your enjoyment of the great outdoors. Be prepared for any type of weather emergencies when traveling with your camper. The following may be helpful in addressing such emergencies:

- Develop a disaster plan for all occupants. Everyone should know what to do in severe weather. Different types of weather will call for different responses so be familiar with each.
- Know if the campground has a designated shelter area in case of severe weather. When you arrive at a campground, ask management what to do in case of weather emergency and where the designated shelter area is located. If the campground is unstaffed, there are probably no weather emergency provisions made for that campground. Be prepared with your own emergency weather plan.
- Find a local radio or TV station that broadcasts weather. In case of power loss, keep an emergency grade battery-operated radio with extra batteries available.
- Invest in a weather radio. A weather radio will give you access to 24-hour VHF weather broadcasts from the US National Weather Service.
- Research and educate yourself on weather safety. Visit the US National Oceanic and Atmospheric Administration website at www.noaa.gov to learn more.

Roadside Emergencies. Roadside emergencies can occur at any given time while traveling. The following guidelines will help you resume travel faster in the case of a roadside emergency:

1. To obtain service, locate your nearest authorized nuCamp dealer using our "Find a Dealer" feature on the website at www.nucamprv.com.
2. If you cannot find an authorized dealer in close proximity to your location, you may try:
   - Searching online for a service center near you.
   - Asking campground staff for service centers nearby.
   - Acquiring a local Yellow Pages phone book and check for RV service centers.
   - Contacting the dealer you bought your trailer from.
   - Contacting nuCamp Customer Service.
3. Upon locating a Service Center have the camper repaired. Unless you are still in the warranty period of your camper you will be responsible for repair costs. If you believe you qualify for warranty coverage, please have the repair center contact the nuCamp Warranty Department by phone at 844-823-9112 or email at warranty@nucamprv.com for pre-approval of repair coverage.
4. If you have an emergency repair on a weekend, after business hours or on a holiday when nuCamp Warranty Department personnel are not available, take the initial steps and find your nearest dealer. Should the situation be dire in nature, where it materially affects your ability to camp or operate your camper, please have it repaired and then contact the Warranty Department during normal business hours to acquire coverage approval. (Note: nuCamp does not guarantee any repairs are eligible for warranty coverage until approval is given through the Warranty Department.)

GENERAL SAFETY

SAFETY LABEL DESCRIPTIONS

CAUTION

A potentially hazardous situation that can result in moderate injury and/or property damage.

WARNING

A potentially hazardous situation that can result in death, serious injury and/or property damage.

DANGER

A potentially hazardous situation that, if not avoided, will result in death or serious injury.

NOTICE

Attention is called to the observation of a specific procedure to maintain a specific condition.

GENERAL NOTES

The note symbol is to give you extra information or a tip on the subject presented

SAFETY CERTIFICATIONS

All nuCamp campers have been designed to conform with, or exceed, the National Fire Protection Association (NFPA) 1192 standard, American National Standards Institute (ANSI) 1192 standards, Canadian Standards Association (CSA) Z-240 standard (for Canadian units), and applicable federal motor vehicle standards. These standards establish the requirements for electrical, plumbing, fuel systems and equipment, fire and life safety provisions and other requirements for quality and safety. The Recreational Vehicle Industry Association (RVIA) and the Canadian Recreational Vehicle Industry Association (CRVIA) routinely check nuCamp product lines to ensure compliance with the above agencies and organizations. RVIA considers nuCamp an active member in good standing and compliance. At nuCamp our design team and Quality Standards department take all RVIA standards into consideration when designing new models and camper upgrades to ensure consumer safety.

SAFETY MESSAGES

Throughout your travel trailer you will find many labels and data plates to aid you in efficient, safe operation and servicing instructions. Tour your trailer to read and understand these messages before operating your travel trailer for the first time. If any label or data plate has been removed, damaged, defaced or painted over, it must be replaced.

SAFETY ALERT SYMBOL

Recognize this symbol as an alert to important safety information or a hazardous situation that can cause property damage, minor or serious injury and in extreme cases, death to you or others. Always read instructions included with this symbol.

FIRE SAFETY

These common causes are related to fire safety hazards and should be avoided at all costs:

- Smoking in bed
- Leaving children unattended
- Using flammable cleaning fluids
- Leaving food unattended while cooking or baking
- Having faulty wiring
- Using damaged electrical devices
- Having propane or gasoline fuel leaks
- Being careless

In a fire emergency:

- Evacuate the camper immediately. *Safe escape is the most important part of a fire emergency.*
- Execute the Fire Safety Plan you developed. Refer to the GETTING STARTED section of this manual.
- Understand the type of fire you are dealing with. Using water in a grease fire may spread the fire while using water for an electrical fire may result in electrocution.
- Call 911 from a safe distance away, regardless of the fire size.

Cultivate these safety habits in recreation to minimize fire safety hazards:

- Teach all occupants Fire Safety Practices. Consult your local Fire Department and the NFPA (www.nfpa.org) for more information.
- DO NOT leave a burning fire of any kind unattended.
- Supervise children at all times around campfires, grills and stove-tops where there is open flame.
- Maintain a minimum three-foot area around campfires, grills, and tents are free of dry grass, leaves, pine needles, wood, bushes, trees, or combustible materials.
- Be ready in advance to quickly and completely extinguish any type of fire at all times.
- Teach everyone how to use the P.A.S.S. method with a fire extinguisher.
- DO NOT store flammable materials in closed areas or by a heat source.
- When refueling motor vehicles first turn off all pilot lights and appliances in your camper.

FIRE EXTINGUISHER

A fire extinguisher is located on or near the door of your camper. Read all user instructions on the fire extinguisher in its user manual, found in your Owner's Packet. The extinguisher is designed for Class B (flammable liquid, oil, or grease) and Class C (energized electrical) fires as these are the most common in recreational vehicles.

After all occupants are evacuated from the camper and before you use the extinguisher in a fire emergency, determine the cause and severity of the fire.

- If the fire is large or fueled by an oil product or other flammable liquid, stay clear of the camper and let the fire department handle it.
- If the fire is very small and can be managed, use the fire extinguisher.
- Keep your back to the door so you can evacuate quickly if the fire gets out of hand or the room is too full of smoke.
- Remember that any oxygen supplied to a fire may further fuel it.

When operating a fire extinguisher, remember the acronym P.A.S.S.

P-ull the pin. Point the nozzle away from you.
A-im the nozzle at the base of the fire.
S-queeze the lever gently and slowly.
S-weep the nozzle from side to side to extinguish the fire.

Disposal. After using the fire extinguisher contact the local fire department for instructions on disposing of your non-refillable dry chemical fire extinguisher. **Replace the fire extinguisher immediately.**

EMERGENCY EXIT

The Emergency Exit Window in all nuCamp campers is recognized by the "EXIT" label and its red handles. This exit serves as a secondary means of escape if the main door entrance gets blocked during an emergency. The EXIT window is made of the same acrylic material and operates the same as all other windows in the camper.

COMMON SENSE

While many things can be construed as safety related, the most important is your common sense. If you are careless with matches, cigarettes, flammable material, or any other hazardous material, we can only hope you realize that potential for accidents is greatly increased.

WARNING LABELS

Various safety and information labels are attached to surfaces both inside and outside your RV. These labels are permanent and should not be removed or relocated for any reason.

WARNING

Test smoke alarm for proper function after camper has been taken out of storage, once per week and before each trip. If the smoke alarm does not test properly, replace it immediately.

WARNING

Never use open flame to test the smoke alarm. This can set the smoke alarm and your camper on fire.

WARNING

If the CO alarm sounds GET OUT of the camper immediately to fresh air. Open doors and windows and turn on fans to air out the camper. Determine the cause of the CO before reoccupying the camper.

Practice the following:

- Teach all occupants how to operate the EXIT window before an emergency.
- In the Family Safety Plan decide in what order occupants will exit the camper in an emergency.
- When parking the camper, check that the EXIT window is not blocked by obstacles such as branches or trees. Have solid, level ground below and outside the window with a clear path of escape.
- Have a blanket or heavy coat ready to serve as a cushion on the window frame.
- The last person to exit must be prepared to assist those going first.
- Open and close the Emergency Exit Window on each trip to keep the window from potentially sticking to the seal.
- Lock the Emergency Exit window while traveling or moving the trailer.

SMOKE ALARM

Your camper is equipped with a smoke alarm near the ceiling in the kitchen. The alarm will only sound when smoke reaches it. Read the user manual for the smoke alarm to find all needed information regarding its operation.

Important Information:

- The alarm is powered by a standard 9-volt battery. When the battery is connected a red LED light will blink.
- When the alarm is activated by smoke, it will beep repeatedly, and the LED light will flash rapidly.
- **Never disable the alarm for nuisance sake or false alarms.** This could be fatal if you forget to turn it back on. Ventilate the cabin with fresh air instead.
- Test your smoke alarm with these steps:
    1. Press and hold the test button until alarm sounds.
    2. Alarm will beep about four times.
    3. If there is no sound replace the alarm or supply a new battery.
- The smoke alarm is designed to give you advance notice to the presence of smoke which may lead to open flames.
- If the alarm sounds, evacuate the camper immediately and call 911.
- Replace the alarm when it reaches its expiration date.

Carbon Monoxide Poisoning Symptoms:

Dizziness	Vomiting
Drowsiness	Shortness of breath
Weakness	Confusion
Runny nose	Blurred vision
Sore or watery eyes	Unconsciousness
Dull headache	Brain damage
Nausea	Death

In most cases of CO poisoning, individuals becomes aware they are not feeling well but become so disoriented they aren't able to save themselves by getting to fresh air or calling for help. This is especially dangerous for people who are sleeping or intoxicated. Pets, babies and small children are usually the first affected by CO poisoning.

It is very important to have exhaust fans running and an air inlet such as a window open when operating fuel burning appliances.

CO & LP GAS ALARM

Your camper is equipped with a CO/Propane Leak alarm near the floor that will sound when Carbon Monoxide reaches dangerous levels or if a propane leak occurs.

If alarm signal sounds:

1. Move to fresh air immediately. Evacuate all persons from the camper, leaving doors and windows open and execute your Safety Plan. Do not silence the alarm. If possible, shut off gas supply at the source and turn off all gas appliances.
2. Call Emergency Services. Do not re-enter the camper until Emergency Service responders have arrived, the camper has been aired out and your alarm returns to normal condition.
3. If the alarm re-activates after 24 hours, it may be evidence of a propane leak or appliance malfunction. Repeat steps 1 and 2 and then have a qualified technician investigate. If equipment needs serviced, do so immediately. If a technician is not available, contact the nearest fire department for assistance.

How to test alarm for proper operation: (Unit must be powered on for at least three minutes before testing)

1. Press the "TEST" button until the alarm sounds.
2. All LEDs will light up and alarm will sound twice.
3. The LED flashes red and returns to normal operation displaying a flashing green LED every 8 seconds.
4. If alarm does not sound or light up, you may need to have a service technician examine and/or repair it.

Important Information:

- The alarm is powered by the 12V DC system. Disconnect the battery when not using the camper to keep the battery from being drained.
- The alarm will need to be replaced after 7 years.
- Read the user manual for the alarm found in your Owner's Packet for complete safety instructions and troubleshooting and incorporate useful practices listed therein into your Safety Plan.
- The alarm sensor may detect other vapors such as gasoline, acetone, alcohol, butane and other fumes that can be found in perfumes, alcoholic beverages, adhesives, kerosene, cleaning agents and aerosol cans.
- Read all safety related messages in the propane gas section of this manual. [See Page 39]

WARNING

Test carbon monoxide alarm for proper function after camper has been taken out of storage, once per week and before each trip. If the CO alarm malfunctions or does not test properly, replace it immediately.

WARNING

Do not use open flame such as a cigarette lighter to test the CO/Propane gas alarm. Sensors may damage and alarm may catch fire.

WARNING

If a tow vehicle or generator is running near your camper, CO emissions can potentially filter through the air system into your camper.

TOWING & LEVELING

⚠ CAUTION

Excessive speed could result in tire overheating and blowout. Do not exceed 60 MPH in normal road conditions.

⚠ WARNING

Excessive speed in hazardous road conditions could result in loss of control, serious injury or death. Slow down in hazardous road conditions or pull off the road and wait for the weather to clear up. Follow all weather safety directions.

⚠ WARNING

Never allow anyone to ride in the trailer while traveling. Not only is it against the law in many states, it may result in serious injury or death.

SPEED

In ideal road conditions, the maximum recommended speed for safely towing a trailer is 60 mph. Your trailer is more likely to sway under higher speeds, thus increasing the possibility for loss of control. Your tires can also overheat, increasing the possibility of a blowout.

RIG DYNAMICS

When towing a trailer, you will encounter:

- Increased Turning Radius. This means you must make wider turns to keep from hitting curbs, vehicles, and anything else on your inside corner.
- Increased Stopping Distances. To compensate for increased stopping distances, while following another vehicle on the highway, stay one rig length away from the vehicle in front of you for every 10mph of your speed.
- Different Vehicle Handling Dynamics. Your trailer will be more sensitive to steering in windy conditions. Larger vehicles passing will have a greater effect on the control and handling of the vehicle.
- Slower Acceleration. You will need a longer distance to pass, due to slower acceleration and increased length.

DRIVING PRACTICES

Safe driving practices and habits:

- Slippery conditions. Slippery road surfaces will be more dangerous when driving a vehicle with a trailer, compared to driving without a trailer.
- Rainy Weather. While rain may seem harmless, the dangers of hydroplaning increase if you do not reduce your speed. It may be helpful to turn on your emergency flashing lights to help others on the road to see you better, especially in heavy rain where visibility is reduced.
- Black Ice. In rainy weather when temperatures drop to 32° or lower, black ice is possible and will show up on bridges first. Reduce your speed to reduce the risk of losing control.
- Trailer Sway. This is caused by excessive steering, wind gusts, roadway edges, the trailer's reaction to the force created by passing trucks and buses, or improper loading of cargo in the trailer—a frequent problem. When encountering trailer sway under high speeds, back off the accelerator and "ride it out" by steering as little as possible to stay on the road. Use small "trim-like" steering adjustments. Do not attempt to quickly steer out of the sway as this is dangerous and can result in loss of control. If your vehicle is equipped with a hand control of the electric trailer brakes, gently apply the trailer brakes alone to straighten out any sway. This works because it puts pressure between tow vehicle and trailer where the sway is happening.
- Check rearview mirrors every 2-3 seconds to observe trailer behavior and accompanying traffic.
- Always check your rearview mirrors before changing lanes and always use turn signals.

- Use a lower gear when driving down steep or long grades. The engine and transmission should not serve as a brake but rather to maintain a lower speed. Use brakes to gently reduce speed then rely on your engine to maintain the speed. Do not ride your brakes, as they may overheat and become ineffective.
- Always be aware of your trailer height, especially when approaching bridges, roofed areas and trees. It is helpful to know your exact clearance height and check the height dimension on each bridge before passing underneath.
- Obey all traffic rules. They are for your safety.
- Wear your seatbelt.
- Be alert and courteous to fellow drivers.
- Look out for motorcycles, bicycles and pedestrians.
- Always use your running lights to increase your visibility to other traffic.
- Never drive under the influence of alcohol, drugs or any kind of medication that will affect your reflexes, comprehension and alertness.
- Never drive when you are tired. If you begin to fight sleep, switch drivers or, if you are alone, find a place to sleep until you are rested enough to go on. It is more important to arrive safe than on time.
- Never use cruise control on wet, icy roads, winding roads or when traversing mountainous territory.
- Be aware of your travel trailer's departure angle when entering or exiting driveways, parking lots, campgrounds or any other terrain where you must cross a ramp angle. Refer to the nuCamp RV website for specifications on your trailer.

TOW VEHICLE

Using a tow vehicle with under-rated towing and loading capacities to tow a trailer can cause serious stability problems. Additionally, the strain put on the engine, structural frame and drivetrain of the vehicle may lead to serious maintenance problems. The maximum towing and payload capacities of your towing vehicle must never be exceeded. Refer to your tow vehicle's Owner's Manual for the towing capacity of your tow vehicle, in terms of maximum Gross Trailer Weight (GTW), maximum Gross Combined Weight Rating (GCWR) and Payload Capacity.

WARNING

Using a tow vehicle with under-rated capacities could result in loss of control, serious injury or death and will void your warranty. Pull a trailer with a tow vehicle rated for the trailer's weight.

HITCH & COUPLER

For safety, it is extremely important for a trailer to be securely coupled to the trailer hitch. Before you tow your trailer confirm that:

- The hitch on your tow vehicle is proper for your trailer with the correct towing and load capacity.
- The ball on your hitch is the correct size and is not worn down, corroded or cracked. Replace if needed. The ball size required for your trailer, typically 2" or 2 5/16", is specified on a label attached to the tongue coupler.
- The ball is fastened tightly to the hitch.

DANGER

Using an under-rated or improper ball hitch could result in uncoupling, loss of control, serious injury or death and will void your warranty. Couple your trailer with the properly rated hitch and correct ball size.

When your hitch is mounted to your tow vehicle, your travel trailer must be level so as not to put more weight on one set of tires and axle and exceed its rating. If necessary, purchase a hitch with adjustable height for your tow vehicle so that your trailer is pulling level to the ground behind your vehicle.

- A high hitch will accent weight behind the axle and may cause sway or fishtailing.
- A low hitch will add extra tongue weight and extra weight to the front axle.

SAFETY CHAINS

To be effective, safety chains must:

- Be in good condition and properly connected to the tow vehicle.
- Be fastened to the frame of the tow vehicle. Do not fasten to ball or hitch!
- Cross each other under the hitch and twisted for minimum slack to allow for turns.
- Be able to hold tongue off the ground if the trailer should uncouple for any reason.

WARNING

Incorrect attachment of safety chains can result in serious tow vehicle and trailer damage, loss of control, serious injury or death. Attach safety chains according to proper instructions.

Safety chains are provided on bumper pull trailers so that control of the trailer can still be maintained if the trailer comes loose from the tow vehicle. If the safety chains and emergency breakaway brake lanyard are incorrectly attached, the result can be extensive trailer and tow vehicle damage, serious injury and even death.

BREAKAWAY SWITCH

Your trailer is equipped with a system that will apply the brakes in emergencies where the trailer uncouples from the towing vehicle.

When hooking up the breakaway system:

- Connect the breakaway switch lanyard to a permanent part of the tow vehicle.
- DO NOT connect the lanyard to the safety chains, hitch, or ball.
- Make sure the auxiliary battery, equipped on your trailer, is correctly installed, fully charged and in good working condition. Your system will not work without the battery hooked up for power.
- Test the system before towing on the road.
- DO NOT tow your trailer on the road if the system is not working properly. Have the system repaired before towing.

WARNING

A dysfunctional breakaway system can cause a runaway trailer which may result in loss of control, serious injury or death. Never tow a trailer with a malfunctioning breakaway system.

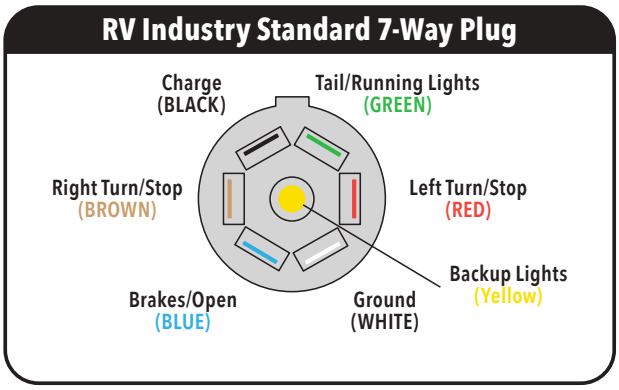
The breakaway switch is activated when the trailer moves a certain distance away from your tow vehicle. The breakaway system is a way for your trailer to keep tension on the safety chains and allow you to come to a full stop with minimal trailer, vehicle damage or personal injury. Keep the breakaway system, including the trailer battery, in good working condition and properly rigged to be fully effective.

CONNECTOR PLUG

Before each trip:

1. Plug the 7-pin connector plug into the tow vehicle socket and verify that the driving lights on the side and rear of trailer light up.
2. Have someone stand behind the trailer and confirm lights are working when you perform next steps.
   a. Step on the tow vehicle brakes. Brake lights should light up in the rear.
   b. Turn on right/left turn signals and verify that the appropriate lights come on.
   c. With your foot on the brake, put your vehicle in reverse and verify that the backup lights come on.
3. If any of the lights do not function as expected, the system may need serviced.

The 7-pin connector plug, the wire harness by the tongue, supplies power from the tow vehicle to brake, turn signal, driving and backup lights in your travel trailer. It may build up corrosion over time. Clean the connector plug frequently to ensure good electrical contact.



WARNING

Malfunctioning or disconnected lights on your trailer while driving is not only illegal but may result in traffic accidents due to limited visibility of your trailer by other vehicles. Loss of control, serious injury or death can result.

WARNING

If your trailer is improperly connected to your tow vehicle, chances for loss of control and traffic accidents are greatly increased and may result in serious injury or death.

TOWING HOOKUP

Before you move your trailer:

- Secure and lock the coupler mechanism.
- Secure the safety chains to the tow vehicle.
- Fully retract all tongue and stabilizer jacks.
- Remove chocks from trailer wheels.
- Connect the breakaway switch lanyard to the tow vehicle.
- Connect the 7-pin Connector plug to the tow vehicle power plug.
- Secure all cargo.

Before you tow your trailer on the road, check and ensure:

- Proper function of trailer brakes.
- Proper function of breakaway switch and system.
- Loads and cargo are secured to the trailer.
- All driving, brake and backup lights are functioning properly.

WARNING

Improper tire pressure can cause trailer instability. Tire blowout, loss of control, serious injury or death can ensue. Always check and correct tire pressures before towing your trailer on the road.

CAUTION

Tire pressures are only accurate when tires are cold.

Trailer Tires

Generally, tire imbalance and misalignment are not issues on trailers but in some cases can be. Unlike tow vehicle tires, which require routine balance, rotation and alignment, trailer tires are not subject to driving torque and friction from steering around turns. The best thing to do if you have an imbalance or axle misalignment issue is consult your dealer. On tandem axle trailers tire life may be improved by routine rotation. To rotate your tires, use the X pattern. If your trailer is equipped with a full-size spare tire, rotate it in with the rest of the tires to keep it from dry rotting. Your dealer can provide you with more information.

BASIC TIRE SAFETY

Everything in your trailer rides and weighs on the tires. This makes them essential safety items to which you must pay close attention.

Common hazards and problems relating to tires are:

- Incorrect inflation
- Overloading
- Tire imbalance
- Low tread
- Axle misalignment
- Mismatched tires
- Improper sized tires to rim
- Road hazard

Before each trip determine:

- Do tires have correct inflation pressure? Check the tires with a high-quality pressure gauge and correct pressure when tires are cold.
- Are there any cuts, cracks, bald spots, uneven tread wear or exposed reinforcement cords in my tires? If there are, have a professional tire dealer inspect your tires for diagnosis and repair.
- Is the trailer overloaded? The Gross Vehicle (Trailer) Weight Rating (GVWR) must never be exceeded. See STEPS TO DETERMINE CORRECT LOADS on page 26-27.
- Are there foreign objects lodged in the tires? Remove any stones, debris or other foreign object from the tires.
- Do tire valves all have caps? Keep a few extra caps on hand in case you lose one.

TIRE MAINTENANCE

The two most important things to remember about maintaining tires on a trailer are pressure and tread wear.

Tire Pressure. The proper tire pressure for your trailer is listed on the Federal Certification/VIN label on the tongue of your trailer. An example label can be seen on page 24. You can also find the proper tire pressure on the tire itself. The tire pressure must be checked while the tire is "cold" for accuracy.

1. If your tire pressure is higher than recommended, press the tire valve stem inward for 5-10 second intervals until you have reached the proper pressure.
2. If your tire pressure is low, add air pressure by inflating for 5-10 second intervals until you reach the recommended max air pressure.
3. If you have been driving and your tire pressure is low, even though the tire is hot, fill it to the recommended cold tire pressure. *This is a temporary fix only.* Recheck and correct pressure when you can acquire a cold reading.

More Tire Pressure Information:

- Improper tire pressures can overload your tires, causing heat buildup. Too much heat buildup in a tire can cause reduced trailer stability, tire blowout, loss of control or worse. Always keep a tire pressure gauge in your trailer and before each trip make a quick check of all tire pressures. A tire left under-inflated for even a short period of time can suffer interior damage.
- Tires may lose pressure over time due to air molecules that are highly pressurized working their way through the rubber of the tire to the outside. Over a month's time, a tire may lose as much as 1-3 PSI. When storing your trailer, inflate tires to max capacity and top off the pressure before towing again.
- You cannot determine proper tire pressure by visual inspection, although extremely low tire pressures will be clearly visible. Only a tire pressure gauge will accurately tell you what is going on.
- Tire pressures are recorded as PSI (pounds per square inch, in the U.S.) and KPA (kilopascals, the metric, international measurement).
- Recommended tire pressures are normally recorded as "cold" tire pressures. The cold inflation pressure is when the tire has not been in use for more than one mile or subjected to heat from driving within the last three hours. A "hot" tire's pressure may be as much as 6 PSI higher than a cold pressure reading.
- You can find air compressors at most major service stations. Alternatively, portable air compressors powered by 12V car charger outlets or 110V electric are usually available from hardware, automotive or building supply stores.
- Keep a high-quality tire pressure gauge in your camper. Cheap tire gauges are often more inaccurate. You can find good ones at auto parts stores or at professional tire dealer facilities. Ask for recommendations.

Tread Wear. Good tire tread keeps your vehicle from slipping or sliding in cold or rainy weather conditions when ice or hydroplaning hazards are present.

- When tire tread is worn down to 1/16" of tread, it is unsafe and must be replaced. By most expert statistics, the average life of a trailer tire under normal use and maintenance is five years regardless of how minimum the use has been.
- Even at three years with adequate tread left, replacing your tires should be considered.
- Tires may look like they have plenty of tread left even though they may be worn out. Have a qualified service technician inspect your tires frequently and evaluate the life of the tire.
- Tires are warranted by the tire supplier. Refer to the flyer enclosed in your Owner's Packet for Warranty Information or access the TredIt website at www.tredittire.com.

WARNING

A tire with tread lower than recommended will not have good traction and is subject to tire blowout at any time. Loss of control, serious injury and death may result.

There are two ways to check your tires' tread wear:

1. Tread Wear Bars. These are the raised sections in the bottom or beside tire tread grooves. When the tread has become even with the tread wear bars to the point that you cannot distinguish the difference, you need new tires.
2. The Penny Test. Insert a penny into the tire tread grooves with the top of Lincoln's head pointing into the tire. If you can see the top of Lincoln's head on the penny, tires must be replaced immediately.

Abnormal or uneven tread wear are signs that your tires give to indicate how they are performing. Below you will see the most common issues, reasons why and how to correct:

Tire Wear Diagnostic Chart

WEAR PATTERN	CAUSE	ACTION
 CENTER WEAR	Over Inflation	Adjust pressure to particular load.
 EDGE WEAR	Under Inflation	Adjust pressure to particular load.
 SIDE WEAR	Overloading or loss of camber	Make sure load doesn't exceed axle rating and perform alignment service.
 TOE WEAR	Incorrect toe angle	Perform alignment service.
 CUPPING	Tire out of balance	Check bearing adjustment and balance tires.
 FLAT SPOTS	Wheel lockup and tire skidding	Avoid sudden stops when possible and adjust brakes.

SPARE TIRE

Your trailer is equipped with a spare tire located in the front exterior compartment next to the propane gas container.

How to install the spare tire in an emergency:

1. Find a solid, level surface on which to jack up your trailer. If there is no solid surface available, use the jack pads you use for leveling the trailer or place a heavy rubber mat under the jack. Gravel or unsolid ground can be dangerous to place a jack on as it may give way and cause serious injury if the trailer moves.
2. If you are beside the highway, place reflective cones or road flares fifty feet behind and in front of your vehicle to alert traffic that you need space.
3. If possible, leave the trailer attached to the tow vehicle. Set the park brake on your tow vehicle.
4. If you have weight distribution bars equipped, remove them.
5. Chock the wheels on the opposite side of the delinquent tire.

6. Remove the spare tire from its holder beside the LP gas bottles. You may need to use the ¾" socket for this. Grab the jack, stand and ¾" tire iron.
7. Using your ¾" tire iron, loosen all lug nuts by one 360° turn, or just enough to loosen slightly.
8. Now you are ready to jack up the trailer. Place the jack on the axle or chassis directly behind the wheel. Lift the trailer, being very careful that the jack does not slip off. Keep all body parts away from the area to avoid serious injury.
9. When both tires have cleared the ground, remove the lug nuts on the failed tire. Immediately install the spare tire, start the lug nuts by hand and tighten as much as possible. The wheel will spin when you try to tighten lug nuts. This is normal.
10. Carefully drop the trailer back down, remove the jack and tighten lug nuts according to instructions shown on page 23.
11. Stow the failed tire in the spare tire compartment or in your tow vehicle. Reinstall weight distribution bars, stow all tools, remove chocks, road flare and reflective cones, in that order.
12. Proceed to the nearest tire service center. Have the failed tire repaired or replaced and remounted.
13. Remember to properly re-torque the lug nuts at 10, 25, and 50 miles.

Of all tire maintenance, the spare tire is often the most forgotten. After all, you only need it in a pinch. Properly maintain your spare tire. When the time comes to use your spare tire, you will want it to perform as expected.

1. Check the spare tire pressure monthly.
2. Do not exceed 50 MPH speed or drive more than 300 miles with your spare tire on your trailer.
3. A spare tire is generally only to be used when the normal tire is damaged, flat or cannot hold air pressure. It should not be used for long-term purposes. Use it for temporary and emergency purposes only until you can reach the nearest tire service center.

TIRE INFORMATION

Other essential information concerning tire care:

- Statistically, it is better for a tire to be in use than idle. This is due to lubricants beneficial to tire life that release when the tire is under pressure and being used.
- Frequent use of the trailer tires prevents "flat spots" from forming that are detrimental to the tire's health.
- In hot climates, towing under high speeds significantly degrades trailer tires. The heat a tire operates under in these conditions may be higher than the ideal conditions it is engineered for. The heat buildup can cause internal tire structure failure. Use moderate speeds in higher temperature climates.

DANGER

Do not attempt to jack up your trailer with the equipped stabilizer jacks. Stabilizer jacks are not engineered to lift the trailer. Serious injury or death could ensue.

CAUTION

Do not leave the spare tire equipped for more than 300 miles. It is intended only as an emergency measure until you can reach the nearest service center.

Spare Tire Tools

TOOLS NEEDED TO CHANGE A SPARE TIRE:

Hydraulic Jack (Two-Ton Capacity)

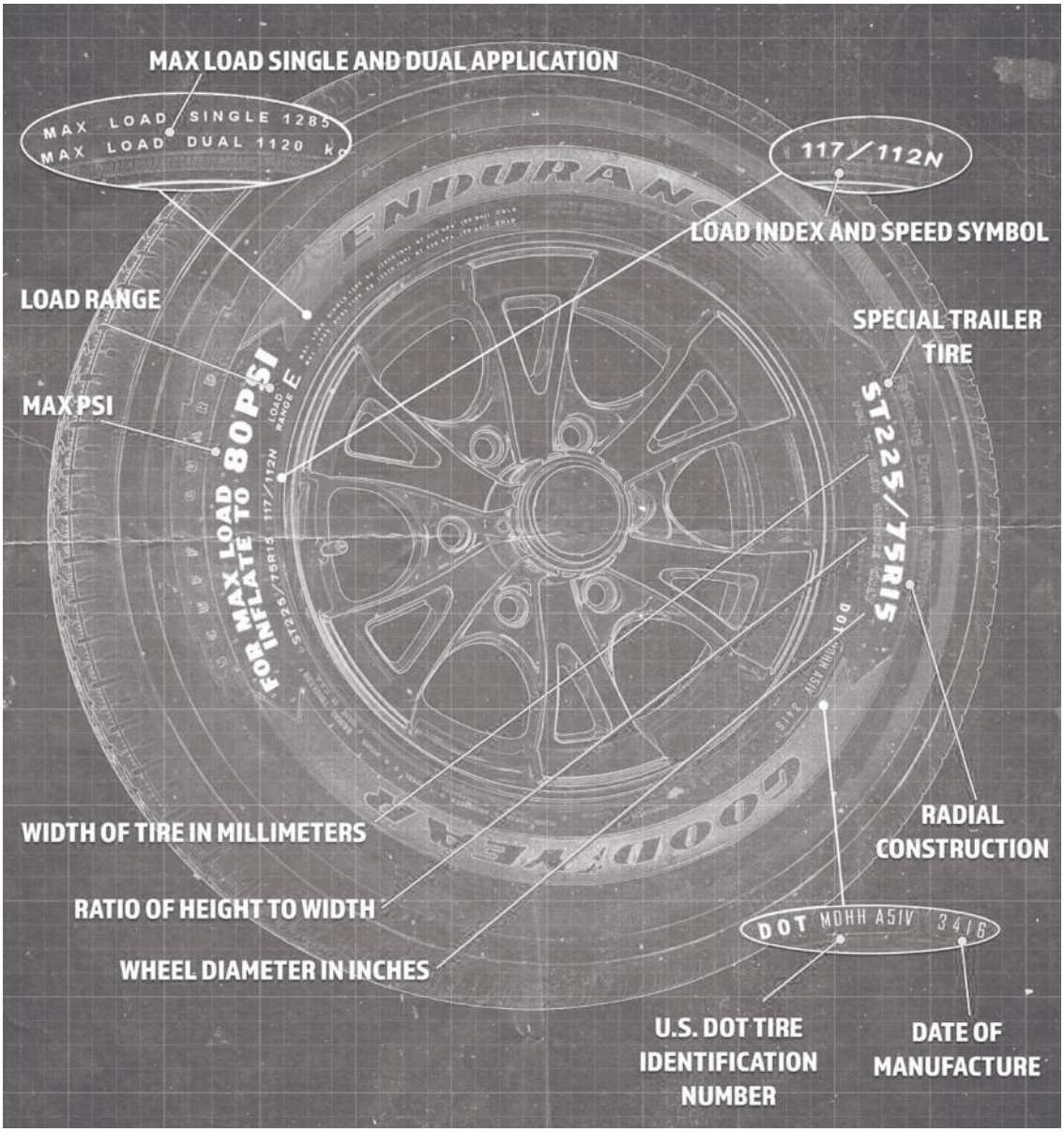
¾" Torque Socket Wrench or Tire Iron

Wheel Chocks

Flat Jack Pads, Hard Rubber Mat, or Steel Plate

High Visibility Reflective Cones and Road Flares

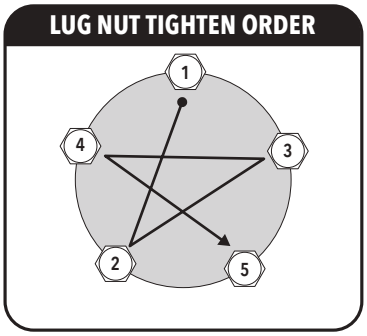
- Specialized Trailer (ST) tires are greatly different than passenger (P) car or light truck (LT) tires. Passenger car and light truck tires are designed for traction in driving conditions such as stopping, pulling, swerving, or turning. They require tires with more flexible sidewalls. Trailers do not have applied driving torque to their axles, but they carry heavy loads and have a higher center of gravity. Trailer tire sidewalls are engineered to reduce sway and handle heavier loads. Use recommended tires with the ST rating for your travel trailer.
- Tire industry standards restrict speeds of "ST" tires to 65 MPH under normal inflation and loads, unless noted differently on the sidewall of the tire.
- Store your trailer in a cool, dry place indoors to minimize the harsh effects of the sun on your tires. If storing outdoors, tire covers will serve the same purpose.
- When replacing tires, you must purchase tires that are the same size as the trailer's factory-installed original tires or another manufacturer-recommended size. To determine the correct size, check the Tire and Loading Information label as shown below or on the sidewall of the tire you are replacing. Consult your tire dealer for assistance.



Federal Law requires standardized information on the sidewalls of all tires to identify and describe the characteristics of the tire. This also helps provide a tire identification number in case of recalls and for safety standard certifications. The image on page 22 is intended as a demonstration only concerning standardized information on a tire. It is not the actual tire that your trailer is equipped with.

LUG NUTS

To keep wheels properly attached to the hub, lug nuts must be properly tightened. Lug nuts often loosen slightly after first being assembled. After you purchase your trailer (and after remounting wheels at any time) you must tighten the lug nuts at 10, 25, 50 miles and before each trip you take. To tighten the lug nuts, use a calibrated torque wrench, set to 90 ft.-lbs. pressure, in the proper sequence as follows:



WARNING

Metal creep, inadequate torque and loosening lug nuts after factory installation will cause a rim to loosen or wheel to part from a trailer. Loss of control, serious injury and death may result. Tighten lug nuts after the first 10, 25, and 50 miles after wheel mounting and before every trip.

WEIGHT DEFINITIONS

It is very important to stay within the weight ratings of your trailer and tow vehicle. Learning these definitions will help you safely manage your trailer's weight and balance. Towing vehicle and trailer weight numbers typically fall into these two categories:

- Ratings are maximum limits that under no circumstance should be exceeded. These limits are established by nuCamp and our part manufacturers in the design of the trailer.
- Weight and load are generally interchangeable terms. Weight is measured by putting a vehicle, trailer, cargo or other components on a scale. Vehicles and cargo have weight or mass, which create loads on tires, axles, and hitches.

Common Definitions:

GAWR (Gross Axle Weight Rating): The maximum weight each axle is designed for and rated to carry.

GVWR (Gross Vehicle Weight Rating, also called GTWR or Maximum Loaded Trailer Weight Rating): The maximum operating weight of a trailer as specified by the manufacturer including the vehicle's chassis, body, fuel, accessories, and any cargo.

GVW (Gross Vehicle Weight, also called GTW for Gross Trailer Weight): The total actual weight of your trailer or tow vehicle plus cargo, as measured on a scale.

WARNING

An imbalanced trailer can cause excessive sway or adverse tow vehicle handling. This can result in loss of control, serious injury or death.

DANGER

Do not exceed the GAWR (Gross Axle Weight Rating) of your trailer. If you have exceeded the GAWR you must remove or rearrange cargo until you are within the proper load.

WARNING

An overloaded trailer can result in serious injury or death. Never exceed weight ratings of a trailer by over-loading with cargo. If you exceed load ratings, your warranty will be voided, and you could be liable for any accidents that may happen due to negligence.

TONGUE WEIGHT (or Hitch Weight): The amount of weight that presses down on the hitch when your trailer is connected to a vehicle. On a tow vehicle the tongue/hitch weight is considered cargo and must be less than Payload Capacity of the tow vehicle so as not to cause steering safety hazards of the tow vehicle.

CURB WEIGHT: The actual weight of a trailer with standard equipment, including the maximum capacity of LP gas and fluids, a battery(s) and the factory mounted spare tire. This includes tongue weight on a trailer.

CCC (Cargo Carrying Capacity, also known as Payload Capacity): The maximum weight that persons plus cargo should never exceed. Payload is derived by subtracting Curb Weight from GVWR.

- United States: CCC is equal to GVWR minus Curb Weight. Water is considered cargo weight.
- Canada: CCC is equal to GVWR minus the Curb Weight and a full tank of fresh (or potable) water.

LOAD DISTRIBUTION

The balance of a trailer is a key factor in how a trailer handles when it is being towed. Cargo must be distributed evenly from side to side and front to back. Generally, the way to determine this is to weigh your trailer on a public scale. The weight bearing on either side should be equal or within 200 lbs. difference. More importantly, load the trailer so the tongue weight falls between 10-15% of your gross trailer weight. Instructions on how to determine these weights can be found in STEPS TO DETERMINE CORRECT LOADS on pages 26-27.

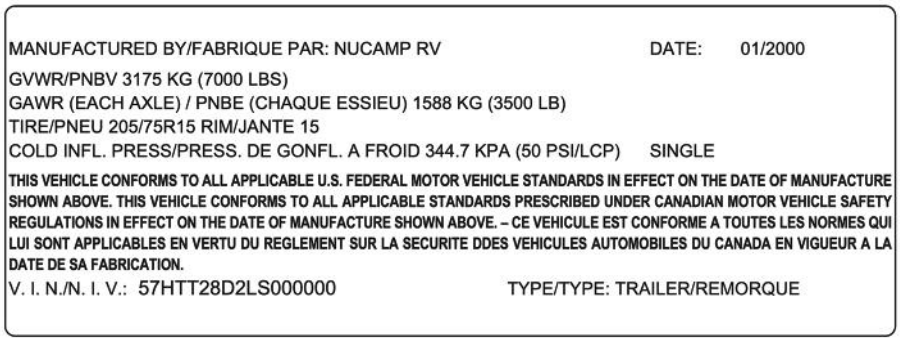
CARRYING CARGO

The load on your trailer must never exceed:

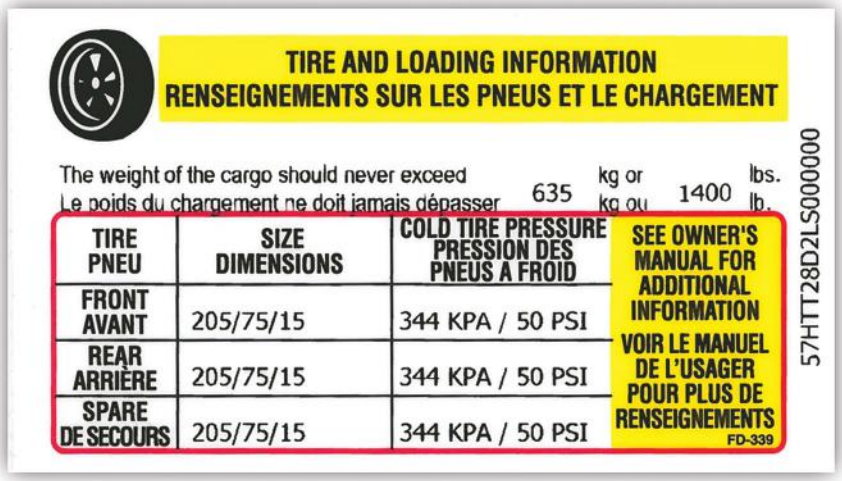
1. GVWR (Gross Vehicle/Trailer Weight Rating)
2. GAWR (Gross Axle Weight Rating)
3. Maximum Load Rating of tires.
4. Cargo Carrying Capacity

The GVWR and GAWR can be found on the VIN (Vehicle Identification Number) label located on the front of your chassis near the tongue jack.

Example (not specific to your trailer):


MANUFACTURED BY/FABRIQUE PAR: NUCAMP RV DATE: 01/2000
GVWR/PNBV 3175 KG (7000 LBS)
GAWR (EACH AXLE) / PNBE (CHAQUE ESSIEU) 1588 KG (3500 LB)
TIRE/PNEU 205/75R15 RIM/JANTE 15
COLD INFL. PRESS/PRESS. DE GONFL. A FROID 344.7 KPA (50 PSI/LCP) SINGLE
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE. THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE. – CE VEHICULE EST CONFORME A TOUTES LES NORMES QUI LUI SONT APPLICABLES EN VERTU DU REGLEMENT SUR LA SECURITE DDES VEHICULES AUTOMOBILES DU CANADA EN VIGUEUR A LA DATE DE SA FABRICATION.
V. I. N./N. I. V.: 57HTT28D2LS000000 TYPE/TYPE: TRAILER/REMORQUE

The TIRE AND LOADING INFORMATION LABEL provides the customer with individual trailer cargo weight limits, tire size and recommended pressure. The label is located on the exterior front passenger side of the trailer body. Example (not specific to your trailer):



TIRE AND LOADING INFORMATION
RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

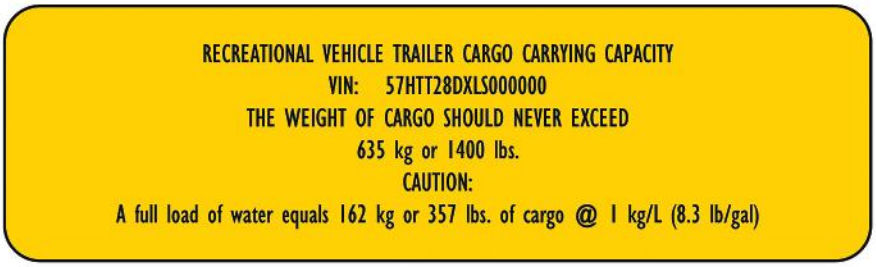
The weight of the cargo should never exceed 635 kg or 1400 lbs.
Le poids du chargement ne doit jamais dépasser 635 kg ou 1400 lb.

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS A FROID	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS
FRONT AVANT	205/75/15	344 KPA / 50 PSI	
REAR ARRIÈRE	205/75/15	344 KPA / 50 PSI	
SPARE DE SECOURS	205/75/15	344 KPA / 50 PSI	

FD-339

57HTT28D2LS000000

The Cargo Carrying Capacity label provides cargo loading information and is located on the jamb of the entry door.



RECREATIONAL VEHICLE TRAILER CARGO CARRYING CAPACITY
VIN: 57HTT28DXLS000000
THE WEIGHT OF CARGO SHOULD NEVER EXCEED
635 kg or 1400 lbs.
CAUTION:
A full load of water equals 162 kg or 357 lbs. of cargo @ 1 kg/L (8.3 lb/gal)

When loading your trailer:

- Determine where gear should be placed to ensure a balanced trailer and document it for future reference.
- Approximately 60% of total cargo weight should be forward of the axles.
- Heavy items should be kept near the floor over the axles to keep center of gravity down on the trailer.
- Don't place heavy items in the upper cabinets to avoid shifting and falling during travel.
- Secure all cargo to keep it from shifting during travel.
- Emergency items should be stored in a waterproof container. Place in an easily accessible compartment.

Spare Tire Tools

Labels located in various places have weight specifications recorded for your convenience. Examples are provided in this manual but ultimately the numbers recorded on your unique trailer are what you need to go by. Because of continuous improvement and innovation of the manufacturing process and available products, each trailer may have unique weights. Each trailer is weighed individually when it rolls off the assembly line and the Cargo Carrying Capacity is determined by that weight. Should any of these labels be de-faced, painted over or missing, contact your dealer or nuCamp Customer Service for replacements.

STEPS TO DETERMINE CORRECT LOADS

To accurately determine correct loads on your trailer, stow all gear that you will be taking on your camping trip and follow these steps to determine where you are at:

Step 1. Locate a public scale. Ensure that the scale reflects accurate weights. All cargo and passengers in the tow vehicle and trailer must be consistent when capturing weights. Always keep the rig level when weighing.

Step 2. With the trailer attached, pull your tow vehicle onto the scales so that all your tow vehicle wheels are on the scale and trailer wheels are off. Record this weight as the Gross Tow Vehicle Weight + Tongue/Hitch Weight:

_____

Step 3. Pull your entire rig onto the scales so that all wheels are on the scales. Record this weight as the Gross Weight of Rig:

_____

Step 4. To find the weight of your tow vehicle without the trailer's added hitch weight unhook your trailer from your tow vehicle and weigh just your tow vehicle. Record this weight as the Gross Tow Vehicle Weight:

_____

Step 5. The hitch weight is considered cargo for your tow vehicle and is not load on your trailer tires. To find the weight load on your tires and axles and determine if you are within the trailer's GVWR and Maximum Load Limits on tires, subtract the weight captured in Step 2 from the weight captured in Step 3 and record the result as the Gross Trailer Weight – Tongue/Hitch Weight:

a. If the result is less than the GVWR + Tongue/Hitch Weight recorded on the VIN Label, and less than Maximum Load Limits on one tire multiplied by 4 (tires) you are within acceptable load range.
b. If the result is more than the GVWR + Tongue/Hitch Weight, or more than Maximum Load Limits on one tire multiplied by 4 (tires), you must remove cargo and lighten your trailer.

_____

Step 6. Tongue weight of your trailer and the hitch weight bearing on your tow vehicle are one and the same. To determine tongue/hitch weight, subtract the weight captured in Step 4 from the weight captured in Step 2. Record the result as Tongue/Hitch Weight:

_____

Step 7. To find the gross weight of your trailer, add the results of Step 5 and 6 and record it as the GVWR:

_____

Step 8. To express the tongue weight as a percentage and determine if the tongue weight is within the safe operating margin of 10-15% of gross trailer weight, divide the result of Step 6 by the result of Step 7. Record it as Tongue Weight Percentage:

_____

a. If the Tongue Weight Percentage is under 10%, move trailer cargo to the front of the trailer. Repeat Steps 2-8 to reweigh.
b. If the Tongue Weight Percentage is over 15%, move trailer cargo to the rear of the trailer. Repeat Steps 2-8 to reweigh.

Step 9. To determine whether your trailer is balanced side to side you will need to pull your trailer on the scale so that only the two wheels on the same side of the trailer are on the scale. Record this weight as Gross Load on One Side:

_____

Now subtract this weight from the result of Step 5 and record it as Gross Load on Opposite Side:

_____

Total: _____

Compare the two numbers. The difference between the two numbers will tell you how much more weight is on one side versus the other. Move cargo to the side with less weight to balance side to side and repeat this step.

LEVELING

It is important to stabilize and level your trailer when using it because:

- The refrigerator performs best when leveled.
- The shower, sink, and water systems can drain and function properly.
- Walking is easier inside when the trailer is stable and level.
- It is easier to prepare food and perform various activities.

CAUTION

Always level your trailer when in use. Failure to level can cause water leaks, refrigerator failure or other damage.

AXLE & BRAKE SYSTEM

Your travel trailer is equipped with an electrically actuated brake system comprised of the following elements:

- Tow vehicle battery
- Brake controller (on tow vehicle)
- 7-pin connector plug
- Trailer battery
- Breakaway switch
- Electric drum brakes

WARNING

Your electric trailer brakes are engineered to work in synchronization with your tow vehicle brake system and a brake controller. Relying on your tow vehicle or trailer brakes alone to stop the rig may result in loss of control, serious injury or death.

Important Information about your brakes:

- Trailer brakes are designed to work with tow vehicle brakes to maintain proper performance.

- Using either tow vehicle or trailer brakes as separate systems will increase wear and tear and may void warranties. Use them together.
- Brake shoes need to be adjusted after 1,000 miles or after 40 medium-hard brake stops. This process is called "burnishing" and fits or "seats" the brake shoes to the drum. After this break-in period, schedule for service with your dealer or another qualified technician to have the brakes adjusted for proper performance and durability.
- Brakes must be adjusted every 12,000 miles or as routine maintenance requires.
- If you experience brake lock-up, shuddering, or uneven braking, it is quite often due to the lack of synchronization between your vehicle and trailer brake systems, too high threshold voltage, or improperly adjusted brakes. If the problem persists, contact your dealer or other qualified technician for diagnosis and repair.
- The primary source of power for your trailer's braking system is your tow vehicle battery. Always keep your tow vehicle battery and its charging system properly maintained and serviced.
- If you are installing an after market brake controller, it must be installed according to manufacturer recommendations for proper tow vehicle and trailer brake synchronization. Contact your tow vehicle dealer for assistance in installation.
- Brakes can be manually adjusted at the brake controller in your vehicle to provide the correct braking capability for varying road and load conditions. Depending on load and driving conditions, you will have to make frequent small adjustments to accommodate.
- Your axle and brake system are supplied by Dexter Axle. All information relating to the brakes and axles can be found in the Operation, Maintenance and Service Manual included in your Owner's Packet. Make sure to read and understand the Manual before you operate the trailer. If you cannot locate a copy of the Manual, it is available on Dexter's website here: https://www.dexteraxle.com/resources/manuals/-in-tags/tags/Light-Duty.

STABILIZING & SET UP

Your travel trailer is equipped with a stabilizing system that serves to keep the trailer from bouncing while in use. Follow these procedures when setting up and stabilizing your travel trailer:

1. Pull into a campsite that is level and free of protruding branches and obstacles. Your trailer should be as level as possible.
2. Set your tow vehicle park brake.
3. Block the trailer wheels with wheel chocks.
4. If equipped, remove the weight distribution bars and stow.
5. Remove the pin from the coupler and pull it back to release the ball hitch.
6. Extend the tongue jack to lift the tongue off the hitch. The tongue jack must be connected to 12V power to work properly.
7. Remove the safety chains, breakaway lanyard and 7-pin connector plug. Neatly lay them over the front of the chassis.
8. If you have jack pads, place them under the four stabilizer jacks.
9. Extend the stabilizer jacks at the tongue jack controls.
10. Place a level on the floor of the camper to determine whether it is level. Adjust the stabilizer jacks until the floor is level.
11. At this point you are ready to connect 110V power, turn on the propane gas for cooking and start enjoying your outdoor experience.

An Owner's Manual flyer with all needed information on how to operate the Stabilizing System is included in your Owner's Packet. Should you happen to lose it, you may download it off the supplier's website here: https://norcoind.com/bal/downloads/manuals/LS%20User%20Manual%20(SS).pdf.

HEATING & COOLING

ALDE® HEATING SYSTEM

Most nuCamp campers are equipped with the Alde® Hydronic Heating System. This system is designed to provide warmth and comfort in all weather conditions.

WARNING

Hot water at temperatures above 120°F (49°C) can cause serious scalding injuries and in extreme cases, death. Always test water temperature before showering.

Advantages of the Alde® System:

- It provides a much quieter, gradual warmth that spreads through the camper, as opposed to loud blasts of air from regular RV furnaces.
- The Alde® System serves a dual purpose, not only heating the space but providing on-demand hot water.
- Both propane gas (with 12V) and 120V shore power can be used to fuel the Alde® System.

It may take a little practice to learn how to operate the Alde® System. But once you do, you will appreciate its performance and dependability.

Some basic information about the Alde® System set-up in your nuCamp camper:

- The Alde® Hydronic Heating System is simple but elegant, with a design that dates to the early 1700's in Sweden. The Alde® System was especially designed for RV use in the cold north and the company has had many years of experience in this. This makes Alde® ideal for use in nuCamp campers.
- Glycol fluid is heated in a boiler, pumped around pipes to heat emitters and then radiates heat naturally into the air. The hot water is heated in the same way.
- The heating fluid is propylene glycol antifreeze, and as it is heated, it exchanges heat through a stainless-steel jacket with the domestic hot water cylinder/tank. As a result, the water is heated at the same time the glycol is heated. This makes the Alde® System very efficient.
- The Alde® System's computerized electronics (such as the control panel) use 12V Power, and the heating will run off 120V and / or propane. Whether you have the unit on propane or 120V, it will always require a small amount of 12V power (.6amps/hour)
- The Alde® 3020 Compact Boiler is located underneath the Kitchen Sink/Stove area. To access, open the bottom door. You may need to remove a drawer to access it fully.
- Typical warm-up time for the Alde® System from cold to a comfortable temperature in the camper is about one hour. Take this into consideration when using the heat system. If it takes longer than this, have your dealer troubleshoot the system.

When using the Alde® System for the first time:

1. Make sure your Alde® bypass valve is turned to "Normal" Operation.
2. Confirm there is no RV antifreeze in the Alde® Domestic Water Tank. This can occur if the unit has been winterized.
3. Check your Alde® expansion tank. The glycol fluid level must be at least one inch above the minimum line. This may need to be topped off after first use.

4. Make sure you have a shore power connection or a full propane tank and charged 12V battery. The Alde® will run off 120V shore-power alone, or off propane and 12V.
5. If you have checked all the above, you are ready for operation. Power on the Alde® monitor mounted in the nuCamp control panel, select a power source, adjust to your desired temperature and enjoy the warmth and comfort of the Alde® Heating System.

Most of this information was obtained from the Alde® 3020 Compact Manual. For complete details on operating the Alde® Heating System, please see the included operator's manual in your Owner's Packet.

ALDE® FLOW

Basic information about the Alde® Flow function:

1. The Alde® Flow is designed as an assistance to the Alde® 3020 Compact boiler. About the size of a shoe box, you will find it installed beside the boiler if your camper is equipped with it.
2. The Flow is not a hot water reserve tank but rather serves as a heat exchanger assistance to the boiler.
3. There are no electric heating elements or combustion chambers inside the Flow.
4. The boiler pumps hot glycol into the Flow where it warms the cold water coming from the fresh water tank by convection, taking the chill off the cold water. The warmed water is then pumped into the boiler and further heated.
5. The Flow lightens the load on the boiler and increases the amount of hot water available for showers. The boiler can provide more hot water with the extra assistance.
6. With the Alde® Flow installed there is an extra safety relief valve that needs to be drained when winterizing the plumbing system.
7. Controls for the Alde® Flow are all built into the Alde® System. Operate the Alde® System as normal. The Flow does not have separate controls.

Consult the Alde® Flow operator manual for detailed instructions on operation. A copy is included in the Owner's Packet.

AIR CONDITIONING

Important information about operating air conditioners in your camper:

- Starting an air conditioner early in the day will not only lower temperatures, it will remove excess humidity and help the camper stay cool when the day gets hot.
- The air conditioner assists in ventilating the camper and promoting a healthy air flow by recycling stale air and bringing in fresh air.
- Roof mounted air conditioners must be added to the total clearance measurement. If you hit an object because of low overhead clearance, the roof top air conditioner will likely be damaged first.
- The air conditioner is the largest single load on the electrical system.
- The air conditioner only operates on shore power. When camping without shore power you will need to use an appropriately sized generator to run the air conditioner. Use 30 Amp Shore Power only. Running the system on a 15amp circuit can overload the circuit.
- DO NOT use the microwave and air conditioner at the same time. It will trip breakers.
- Generally, RV air conditioners are only designed to cool the inside air approximately 20° F lower than the outside air. This is not a defect. In temperatures of 100° F or higher, such as in the southwest United States, this should be taken into consideration.
- Keep windows and other vents closed when operating the air conditioner.
- Hot air rises and cool air drops. The air conditioner air intake is by the ceiling where all the hottest air gathers. The air conditioner gathers the rising warm air, cools it (creating condensation and discharging water on the roof) and then ejects the air by the ceiling where it circulates downward.

- Never close or obstruct the air intake. This will cause the air conditioner to malfunction and slow down cooling.
- Never allow the air conditioner to run without a return air filter. Without the filter, lint and debris will gather on the cooling coil. Damage and loss of air volume can result. This can ruin the air conditioner or at the least, be an expensive repair.
- The air conditioner normally causes water to gather on the roof. To remedy this, lift the front of the camper to allow water runoff to the rear.

When camping in hot weather, especially during the day, the camper will absorb heat from the sun and the surrounding atmosphere. This is known as heat gain. If you can reduce this, especially in extreme hot weather, you have won half the cooling battle.

To reduce heat gain and increase air conditioner cooling in high temperature weather:

- Seek shaded areas to park your camper, such as beneath trees.
- Close all windows, shades and curtains. For an extra heat shield, insert an automotive windshield sun shade, cut to size, into each of the windows. Some shades may have a reflective coating on the exterior side already.
- Keep heat emitting appliances such as the Alde® System, stovetop and microwave turned off.
- Extend any equipped awnings. This will shade the sides of the camper from sun exposure.
- Start the air conditioner early in the morning to give it a head start on the day.
- Turn the air conditioner on its highest setting.

Refer to the air conditioner(s) operator manual for detailed operating instructions. These are included in your Owner's Packet.

FAN VENTILATION

The fan vent(s) installed in the roof creates fresh air circulation and removes stale air from the camper. It is powered by 12V or shore power and may be equipped with either manual or remote controls.

- Always ventilate the camper while sleeping.
- The fan will not ventilate well if an air inflow source such as a window is not opened. For best ventilating results, open a window the farthest distance from the fan so air can flow through the entire camper.
- See operating instructions of the fan vent included in the Owner's Packet.

A/C Bluetooth

If your camper is equipped with the AIRXCEL Coleman Mach 15 air conditioner, it may have Bluetooth control capability. To connect to the air conditioner:

1. *Navigate to the Appstore on your smartphone.*
2. *Search for and download the: RV Climate App.*
3. *Turn on Bluetooth pairing in your phone's settings.*
4. *Locate the two temperature control buttons. Hold both in at the same time for 5 seconds to pair.*
5. *The app will allow control of the digital display.*

RV Climate
ICM Controls Corp

Available on the App Store

GET IT ON Google Play

PLUMBING & WINTERIZATION

WARNING

Do not drink unsanitary water. If water quality is unknown, do not drink. Serious injury or in extreme cases death, can occur.

WATER SYSTEM INFORMATION & SAFETY

Your camper is equipped with a two-part plumbing system – fresh water and waste water.

The freshwater system includes:

- Fill Level Monitor Screen
- Freshwater Holding Tank
- Water Pump & Filter
- Alde® Boiler (heats the water)
- Alde® Flow
- Sink Faucets
- Shower Head
- Exterior Wash Station
- Water Fill Inlet
- Piping & Connections

The waste water system includes:

- Fill Level Monitor Screen
- Gray (waste) Water Holding Tank
- Black (sewage) Water Holding Tank
- Drains
- Toilet
- Piping & Connection

Safety Information:

- Before using the fresh water system for the first time and when de-winterizing, the water system must be sanitized. During cold months the camper may have been winterized at the factory or dealer lot. Following the de-winterization process will sanitize the water system. See pages 37-38 for instructions.
- The water system is safe enough to drink from only if it is properly sanitized. Many camping enthusiasts find it safer and easier to supply their own bottled drinking water. Your best option may be supplying your own safe drinking water rather than rely on the water system in the camper to be pure and sanitary.
- Due to the smaller plumbing system in most recreational vehicles, the pump can only supply a limited amount of pressure at a given time. Use only one water outlet at a time. While showering especially, do not open other faucets. Scalding and serious burns may occur.
- Always drain holding tanks when they are not in use. This will eliminate contaminants from stale water and prevent freezing in winter.
- Traveling with full tanks can reduce the amount of available cargo capacity in the trailer and increase trailer sway. Depending which tank is holding water a full tank will reduce or increase tongue weight slightly.

General Care:

- Road vibrations, excessive pressure from city water sources and improper winterization are the main physical causes of water system damage. Inspect all plumbing joints and fittings often for cracks and leaks. An unchecked water leak at a plumbing joint can cause considerable water damage and costly repairs which may not qualify for warranty coverage.
- It is possible for an electrical problem to cause water system problems due to equipment like the pump requiring electrical connections.
- Be sure to read the literature supplied with plumbing components for troubleshooting tips.
- If a leak or other problem persists after troubleshooting, consult your dealer for further inspection and repair.

MONITOR SCREEN

The main control panel, containing controls for lighting and other equipment and located near the entry door, includes a screen to monitor tank fill levels and a switch for the water pump. To see the tank fill levels, tap the screen and a fill bar indicator will appear above each tank listed as FRESH, BLACK and GRAY.

FRESH WATER TANK

An equipped fresh water holding tank stores water for you to use when dry camping. Important information:

- The fresh water tank has overflow tubes connected into it that also serve as air outlets when the tank is being filled. It is not unusual for water to slop out of these tubes when the tank is filled.
- The tank's water holding capacity may be higher than the amount of water that can be pumped out of the tank and used. This is normal due to the slight expansions of the tank when water is inside it and the limitations of where the low point drain exits the fresh water tank. A few gallons may be trapped inside at any time. This can sometimes be remedied by dropping the side, front or rear of the camper so as much water as possible flows into the low point drain.

WATER FILL

There are two ways to supply the system with fresh water; via the gravity fill (often used in dry camping) or the city water connection (often used when an external pressurized water supply is available at a campground).

To fill the fresh water tank:

1. Close the fresh water tank drain valve.
2. Unlock the water fill access door and open cap on gravity fill inlet.
3. Attach a 3/8" hose adapter to a non-toxic drinking water hose and fill the water tank through the gravity fill inlet. Keep water volume low and fill slowly until the monitor screen shows the tank to be full.
4. DO NOT put the potable water hose into the mouth of the gravity fill inlet. This is so air in the tank can be released during filling.

WARNING

Use potable water only in the fresh water system. Sanitize, flush, and drain water tank before using. Failure to maintain tank can result in death or serious injury.

CAUTION

Water holding tanks should always be completely drained when camper is not in use. Damage or unsanitary conditions may occur when water becomes stale or freezes.

5. Turn the water pump on and run it through the initial start-up process as outlined in the water pump section.
6. When the system has been filled with water, top off the tank with leftover water to fill it completely.
7. Close cap on the gravity fill and lock the access door.

To use the city water connection:

1. Turn the water pump off. The system will be getting its pressure via the connection. In-line check valves will cut off the water pump and fresh water tank from the system.
2. No valves need to be turned to switch from the fresh water tank supply to city water connection.
3. Attach a water pressure regulator of 45 PSI or less between the non-toxic drinking water hose and the city water inlet.
4. Fasten the hose by threading it into the city water connection.
5. Turn the water on at the source.
6. Open all water outlets, both hot and cold, one by one.
7. Allow time for the system to be filled. Shut off each faucet as the flow becomes steady and free of air. When the last faucet is turned off, the system is pressurized and ready for normal operation.
8. If you wish to leave the camper for extended periods while camping, turn off the outside water source at the spigot to avoid unforeseen water leaks.

⚠ CAUTION

Never exceed 50 PSI when using the city water connection with the fresh water system. Water damage may occur if fittings or pipes fail under excessive pressures.

WATER PUMP

The switch for the water pump is located on the main control panel. When turned on it will run until the line is pressurized to about 45 PSI. Pop off the wood panel under the refrigerator to access the water pump. Refer to the Water Pump Owner's Manual for detailed operating instructions.

⚠ CAUTION

Never run the water pump dry. Damage may occur and your pump may be ruined. Follow all supplied manufacturer instructions to properly operate pump.

Initial Start-up process and normal operation:

1. Make sure the fresh water tank is filled.
2. Open all water outlets, both hot and cold, one by one.
3. Place the pump control switch in the ON position.
4. Allow time for the system to be filled. Shut off each faucet as the flow becomes steady and free of air. When the last faucet is turned off, the pump should turn off as well.
5. The system is now pressurized and ready for normal operation and use.
6. During normal operation the pump will cycle on whenever a water outlet source is turned on or when pressure drops in the line. A check valve in the pump will keep water from back flowing.
7. If the pump cycles frequently while there are no water outlets open, you may have one of three common issues:
    a. Debris accumulation in the filter. Remove and clean.
    b. Leak in the line between tank and pump. Have your dealer repair the system.
    c. Pump needs priming. This is sometimes due to a weak pump, which will need to be replaced by your dealer.

SHOWER

The shower-head is removable for hand-held use. It is equipped with a water flow control device to conserve water usage while showering.

Showering Instructions:

1. Check water level in tanks via the monitor screen. You don't want to run out of water in the middle of a shower.
2. If dry camping, make sure 12V system and water pump is turned on.
3. Turn the Alde® system to hot water supply mode. Follow instructions in the Alde® manual.
4. Enter shower and close tambour door securely.
5. Turn on exhaust fan to actively remove moisture vapor.
6. Remove the shower head, turn on valves, adjust the hot and cold valves to desired temperature. Spray directly into the drain to avoid unpleasant temperatures.
7. Water may be cold until hot water makes its way through the pipes from the Alde® boiler. If it is continuously cold adjust the hot water mixing valve underneath the sink.
8. To save water while showering, rinse, turn water off while applying soap and then thoroughly rinse again.
9. Turn water off at the hot/cold knob, let excess water drain from shower head and hang it up. It is normal for the shower head to drip slightly after being turned off.
10. Wipe down shower with a dry rag to keep water stains to a minimum and remove moisture.
11. You can crack open the shower door just a little and keep exhaust fan running to draw air movement through to dry loosely hung towels and clear the air of moisture. The less time the shower is wet, the better it will hold up.

EXTERIOR WASH STATION

The wash station is intended for uses such as washing up before entering the camper. A sprayer, resembling a shower, serves as the outlet and is connected into the fresh water system.

1. Before using the sprayer make sure the fresh water system is turned on and working properly.
2. Pull the sprayer out of its recessed compartment.
3. Adjust water temperature and pressure by adjusting the hot and cold valves.
4. When finished washing, turn water off and drain excess water from the hose and sprayer head.

HOT WATER & MIXING VALVE

Hot water for the camper is supplied through the Alde® radiant heating system. It provides on demand hot water as you need it. The equipped Alde® Flow system increases the amount of hot water available for use. Refer to the Alde® Owner's Manuals for specific operating instructions. The adjustable hot water mixing valve mixes hot water exiting from the Alde® boiler with cold water. The factory sets the hot water mixing valve at its coldest setting to avoid scalding accidents. When operating your

HOT WATER?

The number one issue the nuCamp Customer Service Team is asked concerns the issue of no hot water. This is a simple fix and is only a matter of adjusting the hot water mixing valve to the (+) symbol located near the Alde® boiler. Follow manufacturer instructions for proper valve adjustment.

⚠ CAUTION

Keep drain valve closed to minimize the presence of sewer gases. Sewer gases can be present when RV is connected to campground sewage hookup. May lead to illness or personal injury.

hot water system for the first time, adjust the mixing valve to your desired temperature. Instructions on how to adjust the mixing valve are included in your Owner's Packet.

WASTE WATER TANKS

The wastewater system has two tanks. The gray tank is for wastewater from the shower and sinks and the black tank is for solid wastes from the toilet. Smells from the black tank system can be quite unpleasant. Use of an RV holding tank deodorizer will reduce the smell and aid in breaking down solids in the black tank.

Follow these steps before first use and each time the waste water tank is emptied and dumped:

1. Make sure the fresh water system is turned on, pressurized and bled.
2. Half press the toilet flush pedal or handle till there are about two quarts of water in the bowl.
3. Add an approved holding tank deodorizer according to package directions.
4. Flush toilet repeatedly until at least 2 gallons of water are in the black tank. This will keep solids loose and promote better flow in the black tank.
5. Unpleasant odors from the gray tank can be controlled by adding ½ cup of baking soda or RV holding tank deodorizer to the sink or shower drains and rinsing down with water.

The most common and unpleasant problem with the black tank is clogging. To minimize clogging:

- Cover the bottom of the tank with water immediately after dumping.
- Movement while driving will help liquefy solids. Adding water to the tank will also help.
- Use only RV grade single ply toilet tissue.
- Keep both knife valves closed and locked, and the drain cap tightly in place when using the system on the road and anytime not connected to a dumping station.
- Use a special holding tank deodorant chemical approved for RV holding tank systems in the black and gray water holding tanks. These chemicals aid the breakdown of waste and make the system more pleasant to use.
- Do not put facial tissue, paper, grease, ethylene glycol-based or other automotive antifreeze, sanitary napkins or household toilet cleaners in the holding tanks.
- Do not put anything solid in either tank that could scratch or puncture the tank.

If the drain system does get clogged:

- Use a hand-operated probe to loosen stubborn accumulations.
- Seriously clogged P-traps may require disassembly. Be careful not to over tighten when reassembling.

- Do not use harsh household drain cleaners or motorized drain augers.
- Sometimes the holding tank valve will get clogged. In this case, a hand-operated auger may be necessary. Be ready to close the valve quickly once the clog is cleared. If the seal gets damaged, it must be replaced.

TOILET

The toilet is connected to the pressurized fresh water system. A single lever arrangement controls the flushing and the flow of water into the bowl. Most RV toilets are designed to function with a smaller amount of water than household toilers. Unnecessary, frequent flushing of the toilet will quickly deplete your fresh water supply and fill your holding tank. If the black water tank becomes full, the toilet cannot be flushed until the tank is drained.

To keep toilet blockage to a minimum:

- Only use an RV approved biodegradable 1-ply tissue paper and deodorizing agents specifically designed for use in RV holding tank systems. These products are available directly from your dealer and most camping supply stores.
- Never use chlorine or caustic chemicals such as drain opener or laundry bleach in your toilet.
- Never allow foreign objects (non-dissolving items) such as hygiene products, paper towels, wipes, or diapers to be flushed through the toilet.

Refer to the Owner's Manual included in the Owner's Packet or in the packaging of your toilet for operating and detailed care instructions.

WINTERIZING/DE-WINTERIZING

Freezing climates can damage the camper's plumbing system and equipment. The camper must be drained and have antifreeze protection before storing or camping in below freezing temperatures in fall/ winter. This is done through a process called winterizing.

When getting the camper ready for camping season in spring you must cleanse the potable fresh water system to remove all the antifreeze. This process is called de-winterizing.

Winterizing with RV Antifreeze:

1. Level the camper.
2. Open the freshwater tank valve and completely drain the tank. Leave valve open during winter season to prevent water being trapped in lines.
3. Turn the water pump on.
4. Open all faucets and low point drain valves. Flush out the toilet. Drain the shower head and hose by disconnecting the hose at the faucet.

NOTICE

There is a secondary method of winterizing via a blowout plug connected to an air compressor. Since there is a risk involved with this method if the system is not blown out thoroughly and some water remains in the lines, nuCamp recommends the RV antifreeze winterizing method as a safer option. If you wish to try the blowout method consult your dealer for instructions and training. Pressure in the lines must never exceed 50 PSI when blowing out the water system.

5. Turn your bypass valve on the Alde® boiler to the BYPASS mode and open the pressure relief valve of the Alde® boiler. This step is extremely important!
6. When the water has stopped and freshwater system is empty, turn off the water pump, close the faucets, shower head, low point drain valves, and the pressure relief valve.
7. Drain the waste water holding tanks. Close valves when done.
8. The line in front of the water pump is a winterization bypass valve with a siphon hose attached. Insert this hose into a jug of nontoxic RV antifreeze and turn the bypass valve to shut off the fresh water tank supply. (If your camper does not have this bypass valve and hose installed, consult your dealer to install one for you.)
9. Turn on the water pump, faucets, shower and toilet, in that order, and let the water run from both hot and cold lines until you see antifreeze running consistently from each.
10. Turn everything off again so the antifreeze is trapped in the lines.
11. Pour RV antifreeze into the kitchen sink trap (¼ gal), bathroom sink (¼ gal.) toilet ¼ gal.) and shower drain (½ gal.). You have now completed winterization.

De-winterizing with RV Antifreeze:

1. Close the fresh water tank drain valve.
2. Fill fresh water tank with a solution of ½ cup household bleach per gallon of water.
3. Turn on the water pump, faucets, shower and toilet, in that order. Let the water run until the tank is empty. Open low point drain valves and flush the toilet multiple times.
4. Drain the waste water holding tanks.
5. Turn the Alde® boiler bypass valve to NORMAL. Open the pressure relief valve on the floor in front of the Alde® boiler to drain it. Close when done. This step is important!
6. Repeat Steps 1-4 three times using freshwater without the bleach.

PROPANE GAS SYSTEM

LP SAFETY

Propane gas, also known as LP or liquefied petroleum, is a naturally odorless, highly flammable fuel stored in gas cylinders (commonly called LP tanks) used by appliances such as the stovetop, refrigerator, and Alde® System. A strong odor, almost like sulfur or rotten eggs, is added to the gas so hazardous leaks can be smelled.

Important Safety Information:

- ALWAYS close shutoff valves on LP tanks when the propane system is not in use. Hand tighten only to avoid damaging interior seals on the valve.
- DO NOT use open flame to check for leaks. Use the dish soap and water solution. Spray onto fittings and joints. Bubbles will develop at the leak point.
- DO NOT restrict access to LP gas cylinders. Always keep the valve accessible for emergency shutoff.
- DO NOT use LP gas cylinders other than those supplied with your trailer unless provided for you by a qualified dealer or service technician.
- DO NOT block installed vents in your propane compartment. The compartment must be ventilated for proper air flow.
- DO NOT cross thread, jam or try to force the fitting onto the hose connector.
- DO NOT pack or store LP tanks inside the camper, whether full or empty. The valves have safety devices that can release gas into the atmosphere when under high pressure. Always ventilate your camper when using propane appliances to avoid carbon monoxide and asphyxiation danger.
- Check the LP gas system for leaks or malfunctioning parts before each trip to avoid mishaps.
- Be careful not to puncture propane gas lines when fastening objects or drilling holes in your camper.
- Always fasten LP tanks securely and properly in the bracket intended for them.
- When using the propane gas system for the first time, and after the first 5,000 miles of use, employ a qualified technician to check the piping for leaks. The piping system is tested and checked at the factory, but travel vibrations can loosen joints.
- Read and understand operating manuals of all propane powered appliances before you start using your propane gas system.
- A propane gas alarm is equipped in your camper. See the General Safety Section of this manual to understand how that works.

FILLING LP TANKS

Important information for filling LP tanks:

- Propane appliances will not light when there is an improper mixture of gas and air. Brand new LP tanks often have air and moisture trapped inside before first time use. Have a qualified service technician purge your new LP tanks before filling them for the first time.

DANGER

IF YOU SMELL PROPANE:

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

Ignition of flammable vapors could lead to a fire or explosion and result in death or serious injury.

WARNING

The propane piping system is for use with propane only. Do not connect natural gas to this system. Securely cap inlet when not connected for use. After turning on propane, except after normal cylinder replacement, test propane piping and connections to appliances for leakage with soapy water or bubble solution. Do not use products that contain ammonia or chlorine to test for leaks. This may lead to a fire or explosion, which could result in death or serious injury.

DANGER

All pilot lights, appliances and their igniters shall be turned off before refueling of motor fuel tanks and/or propane containers. Failing to do so may cause ignition of flammable vapors, which can lead to a fire or explosion and result in death or serious injury.

WARNING

Do not fill propane container(s) to more than 80% capacity. A properly filled container contains approximately 80% of its volume as liquid propane. Overfilling the propane container(s) can result in uncontrolled propane flow, which could lead to a fire or explosion and result in death or serious injury.

Get Cookin'

Follow Steps 8-10 after stabilizing and leveling your trailer. Ventilate the camper and make use of the range hood before using the cooktop.

- Only approved DOT propane gas cylinders may be used for the camper.
- Fill LP tanks at authorized propane fueling facilities only.
- It is illegal to fill LP tanks inside the compartment or inside your camper. Remove LP tanks from the camper to fill them.
- Never overfill the LP tanks beyond the safe level.
- Never put a vertical tank in a horizontal position or vice versa.
- Always extinguish all open flames and shut off appliances before removing or reinstalling LP tanks.
- When LP tanks are not connected to the piping system, always attach a dust cap to the connection fitting to keep it clean.

Steps for properly removing, filling and reinstalling the LP bottle(s):

1. Close valves securely on both LP tanks. Hand tighten only. This will shut off all appliances.
2. Position the changeover lever to the full bottle.
3. Unthread the pigtail hose attached to the empty LP tank and attach the dust cap.
4. Remove the empty LP tank from the compartment.
5. Fill the LP tank at a qualified propane fueling station.
6. Place the filled LP tank in the compartment and securely fasten it.
7. Remove the dust cap.
8. Carefully thread and hand tighten the pigtail hose connector onto the tank's fitting.
9. Open the valve on the LP tank very slowly to prevent a rush of liquid propane called freeze-up. If you experience freeze up, close the valve, wait 15 minutes and try again.
10. When you open the valve, you will hear a hissing noise. If the hiss lasts longer than 2 seconds, close the valve and have your dealer service the propane system. You may have a leak.
11. If there is no leak, start appliances according to manufacturer's instructions included in your Owner's Packet.

PROPANE REGULATOR

Your camper is equipped with a two-stage regulator that reduces pressure from the LP tank to the piping system. The first stage drops pressure to 10-13 lbs. pressure. The second stage drops pressure to the 6.35 oz. pressure (11" Water Column or ½ PSI) needed to operate appliances properly. Pressures that are too high or too low will cause safety hazards and affect overall appliance performance. Consult your dealer or a qualified service professional to have the regulator adjusted with a properly calibrated manometer.

The regulator may have a built-in automatic changeover valve. This valve will automatically change the gas supply over to the reserve tank if the main supply tank should become empty.

Operating the regulator valve:

1. Install two full LP tanks.
2. Turn the regulator valve to the LP tank you want to use first (the main supply tank).
3. Open both LP tank valves very slowly. A green indicator means gas is flowing into the system.
4. When the main supply tank empties to a certain pressure, the reserve tank will automatically kick in and the indicator will turn red.
5. Turn the regulator valve to the reserve tank (even though the system is already drawing from that tank). The indicator should turn green to indicate that gas is still flowing. If it is red, both tanks may be empty. Have a qualified service technician inspect or repair the system.
6. You may now remove the empty tank to have it filled and reinstalled.

PROPANE SYSTEM MAINTENANCE

It is possible for the propane regulator to "freeze" in certain climate conditions due to the properties of propane and the dynamics of pressure change inside the regulator. In case of freezing, use an incandescent light bulb or heated blanket to warm the regulator and then have the system purged. Consider purchasing a propane regulator cover, available online and at most major hardware stores, to protect your regulator and prevent freezing.

Environment, usage and time can deteriorate parts in the propane piping system. Inspect the piping system before each camping season. Look for cracks, loss of flexibility and corrosion. If parts need replaced, consult your nuCamp RV dealer for proper parts of the same type and rating.

PROPANE USAGE

Propane usage fluctuates so there is no real way to accurately measure propane usage. This fluctuation is due to varying usages of appliances. Propane usage can be measured to some degree of accuracy by understanding BTUs of appliances and the capacity of LP tanks. A standard 20 lb. LP tank contains approximately 430,270 BTUs of propane gas while a standard 30 lb. LP tank contains approximately 645,405 BTUs.

Propane General Usage Guide

APPLIANCE	APPROX. BTU/HR
Alde® System	11,000 - 18,700
Cooktop	3,700 - 7,200
Refrigerator	1420

What's That Smell?

An odor like garlic can occur when the LP bottle is almost empty. The smell will go away when the bottle is refilled. If the odor persists after the bottle is refilled, turn off all gas valves and have your system inspected by a nuCamp RV dealer or other qualified service technician.

ELECTRICAL

WARNING

120V AC shore power is powerful enough to kill you. Always use a grounded shore power connection and never remove the "third" ground prong from your shore power cord. Both reverse polarity or improper grounding in the 120V AC supply outlet can cause serious injury or death. Do not connect the shore power cord if either or both are present.

ELECTRICAL SAFETY & INFORMATION

Two electrical systems are outfitted on your camper – the primary 12V DC and 120V AC shore power. These electrical systems are engineered to efficiently provide power to the various appliances and features in the camper. All designs, components and wiring methods of the electrical systems conform to federal and RVIA installation requirements at the time of production.

Electrical Safety and Information:

- Aftermarket changes made to the electrical system can result in electrical and fire hazards. Never add appliances, features or other unapproved changes to the electrical system without the assistance of a qualified technician.
- Electricity can pose a hazard if you do not understand how the electrical system works. Only qualified electrical technicians should service the electrical system and make changes to it in any way.
- Install a surge protector in the supplying 120V AC outlet before plugging in your shore power cord to protect your camper's electrical system from damage caused by power surges.
- ALWAYS disconnect electrical power at the source when you work with the electrical system.
- Remove rings, wristbands or other metal objects from your person when working with the electrical system.
- Before you connect your shore power cord to an external supply, test the outlet with an outlet-testing device that indicates whether reverse polarity or an open ground is present in the outlet. If the outlet- testing device indicates either of those conditions, have the outlet repaired. Outlet testing devices are available from your dealer or an RV/camping supply center.
- ALWAYS fully extend the power cord. Do not coil the cord up. Excessive heat build-up can cause the wire coating to melt, become exposed and lead to an electrical hazard.

120V AC SHORE POWER

When connected to an external 120V outlet or generator via the 120V shore power cord, your camper will be supplied with power. The electrical system will be grounded via shore power if there is no open ground in the supplying outlet or generator. The negative terminal on your battery serves as a ground to your electrical system when shore power is disconnected.

The 120V electrical system provides power for:

- Air Conditioner
- Microwave
- Refrigerator (plus LP and 12V)
- Alde® System (plus LP)
- Converter
- 120V Receptacles
- TV & Antenna

12V DC SYSTEM

When not connected to 120V AC shore power, the 12V system uses power from the 12V (or double 6V) battery(s) onboard the camper and functions much like the 12V system in your tow vehicle. When 120V AC shore power is connected, current runs to the 12V power center via the converter and provides power to the 12V appliances and features. The negative terminal on your battery serves as a ground to your electrical system when shore power is disconnected.

These components and appliances work off 12V power:

- Stabilizer Jacks
- Lighting
- Water Pump
- Range Hood
- Refrigerator
- Stereo System
- nuCamp Control Panel
- Power Vent/Fan
- 12V Outlets
- Power bed
- Awning
- Smoke Alarm
- Propane/CO Alarm

Stabilizer Jacks

The stabilizer jack system is directly wired to the 12V battery and does not run through the converter. Fuses are built into the stabilizer jack system.

BATTERY(S)

Battery Maintenance:

- When the 120V AC shore power cord is connected, the converter system automatically charges the trailer battery(s) if the battery disconnect switch is turned ON.
- If the 7-way connector plug is connected to the tow vehicle (depending on tow vehicle make/model) your tow vehicle battery will charge as well.
- Battery charging speed depends on the power being used for lights and appliances. Only surplus power goes to charging the battery.
- On extended stays, keep your trailer hooked up to a 120V AC shore power, if available, to keep batteries charged.
- While driving, if you have the 7-way connector plug attached to the tow vehicle (depending on tow vehicle make/model), your battery will be re-charged.
- To check fill levels of battery charge, tap the tank fill/battery monitor screen on the nuCamp control panel twice. The approximate voltage of your battery will displayed.
- Always make sure the battery is secured in place while traveling.
- Battery cables must always be secured tightly to the terminals. Loose connections can cause loss of power and arcing power between connections.
- Keep the terminals and cables clean and free of corrosion. Clean periodically with a wire brush.

CAUTION

When installing a battery (s), always observe polarity. Connecting a battery in reverse polarity will blow the power converter main fuses located in the 12-volt DC distribution center.

BATTERY DISCONNECT SWITCH

About the battery disconnect switch:

- The battery disconnect switch separates the batteries from the 12V distribution center and converter charging system.
- When 120V AC shore power is connected and the switch is turned ON, the power center is activated, and the battery(s) will be re-charged.
- When 120V AC shore power is connected and the switch is turned OFF, the 12V distribution center will still receive power from the converter, but the battery(s) is disconnected from the system and will not be re-charged.
- The batteries will not be discharged or recharged if the switch is OFF.

POWER DISTRIBUTION CENTER

The power distribution center was designed to use a 30-amp 120V main breaker with branch circuits. Double breakers may be used for the branch circuits. Should a breaker become faulty, replace with the same type breaker only. Only use approved circuit breakers and 12V fuses.

- Generally, each 12V DC circuit in the distribution center was designed for a maximum 20-amp automotive style fuse. One or more fuses may be specified at 30-amp. This is the only place a 30-amp fuse should be used.
- Replacement fuses must be the same type and amp rating as originally supplied by the nuCamp factory. Replacing it with an improper size fuse could result in malfunction.
- The power converter is equipped with reverse polarity fuses. If these fuses "blow" while connecting the battery, replace with the same type and rating fuse as originally provided with the equipment.
- While appliances and accessories are connected to the 120V receptacle, the wiring is protected by circuit breakers in the power distribution center.
- In the event of a failure of a 120V circuit, first check your trailer circuit breakers and the breaker f or the outlet into which your trailer shoreline cord is plugged.
- If a breaker continues to trip after you have reset it several times, your circuit may be overloaded with appliances or there may be a short in the circuit. Try lessening the load on the circuit by shutting off appliances, such as the air conditioner and microwave, that consume high amounts of electricity. If that does not solve the problem, consult an authorized nuCamp dealer.

CONVERTER

The converter is built into the power distribution center where the breakers and fuses are.

Converter function:

- The converter transforms 120V AC into 12V DC and enables you to use the interior lights, fans, pumps, and 12V appliances, whether operating on 12V battery power or 120V shore power.
- When on 12V battery power only, everything works normally except the 120V outlets and appliances. Some appliances, if connected and equipped, may still work with propane gas supply.
- The converter system is designed to maintain constant output voltages, thus named DC (direct current), regardless of the variances that occur in shore power systems which are AC (alternating current).
- The converter is energized only when the trailer is hooked up to 120V AC shore power.
- The power converter is not weather-resistant. It must be protected from direct contact with water.

GROUND FAULT CIRCUIT INTERRUPTER

The GFCI (ground fault circuit interrupter) breaker provides reliable overload protection, short-circuit protection and protection from ground faults that might result from contact with a HOT load wire and the ground. Each GFCI circuit breaker is calibrated to trip with a ground current of 5 milliamperes or more. Help protect your family from the risk of electric shock by performing the following test each month.

Testing GFCI receptacles:

1. Push the Reset button located on the GFCI receptacle first to assure normal GFCI operation.
2. Plug a device, such as a night light, with an ON/ OFF switch into the GFCI receptacle and switch ON.
3. Push the Test button located on the GFCI receptacle. The device should turn off.
4. Push the Reset button, again. The device should come on again.
5. If the device remains on when the Test button is pushed, the GFCI is not working properly or has been incorrectly installed (wired wrong).
6. If your GFCI is not working properly, call a qualified, certified electrician who can assess the situation, rewire the GFCI if necessary, or replace the unit.

WARNING

A GFCI does not protect you from electrical shock. You will not be protected from shock when you contact hot and neutral sides of circuit connections. Outlet covers must always be installed while electrical current is present.

RECEPTACLES

Receptacles powered by 120V AC power are on breakers connected to the distribution panel and will function much like the receptacles in your home. Do not connect an appliance or other device that will overload the circuit. When an appliance such as a dehumidifier, iron, toaster or other device is drawing high power from an outlet, it may impede the function of lights (indicated by dimming) and other components in your trailer. Always be aware of your usage. Shut off appliances that you are not using to increase power availability for others.

Inverter Outlets

One or more receptacles may be powered by an inverter, if equipped. Inverter outlets, when tested, will always indicate an open ground. This is normal. The input electricity of the inverter is partially grounded by the negative DC connection to your battery terminal. It does not need a true earth ground to function properly.

INVERTER

Do not exceed the recommended power supply load on the inverter. See the inverter operating and maintenance instructions included in your owner's packet.

NUCAMP CONTROL PANEL(S)

The nuCamp control panel is located near the main entrance door. On it you will find the Alde® control panel, a tank fill level, and battery charge level indicator along with master switches to power lights, water pump, awning and the refrigerator. A second control panel containing switches on operating various features can be found in the bedroom. Switch buttons will light up when activated.

SAFETY LIGHTS

Your camper is equipped with safety lights and reflectors that comply with federal and state safety regulations. Never alter the lights or remove the reflectors in any way. Replace defective or damaged lights and reflectors immediately upon discovery. Not only you but the safety of other folks on the road depends on you and your safety compliance. Your dealer can provide you with replacement parts.

INTERIOR LIGHTS

Interior lights are LED to conserve energy and are powered by 12V DC via the 12V battery(s) or the power converter when connected to 120V AC shore power. Defective light fixtures must be replaced with same type, size and wattage as originally installed. Contact your nuCamp dealer to acquire those parts.

ENTERTAINMENT SYSTEM

Refer to the manufacturer's instructions for proper operation of the stereo, speakers, and the TV. All operating instructions, along with any equipped remote controls of each component are included in the owner's packet with your camper.

CABLE/SATELLITE CONNECTION

A cable connection inlet is provided on the exterior of your camper to allow connection to campground cable service. The cable supplies a connection to your TV for viewing purposes. Select the correct input source on the TV to watch cable TV.

APPLIANCES

RANGE/COOKTOP

The range is fueled by propane gas and functions very much like your range at home. Some functions may be slightly different because of being powered by propane gas.

Important Safety Information you must know and understand:

- Never use the range to heat your camper. This is a major fire hazard and can also cause carbon monoxide poisoning.
- Always turn on the range hood exhaust fan and open vents when cooking. Gas cooking appliances need fresh air to operate safely.
- Prevent fire and damage hazards by using approved pan sizes. Generally, the pan should cover the burner but must not be more than one inch larger. Keep handles turned inward but not over other burners.
- Only use cookware that is approved for use on top burners and are suitable to be exposed to direct flame.
- When using the burners and afterward, do not touch the burner grates.
- If you need to light the range with an external source, use a grill, kitchen or BBQ lighter as opposed to a flint lighter. This will keep your hands away from the flame.
- Keep the area around the appliance clear and free from combustible materials, gasoline, and other flammable vapors and materials.
- Never leave unattended food, utensils or food on the range.
- Do not use aerosol cans near any appliance with open flames. Most aerosol cans are explosive when exposed to heat and may be highly flammable.
- Do not leave plastic items on the cook-top as they may melt or soften. This can contaminate food if it is in plastic containers. The best practice is to discard the container and contents as a safety precaution.
- Familiarize yourself with the safety information on propane gas. See page 39.
- In a fire emergency execute your family's Safety Plan as outlined on page 11-12 This is vital to you and your family's safety.

Operating Information:

- An igniter switch will light the burners. Press the igniter switch while turning on the control knob to release gas. Sometimes it may be necessary to light the burner with an external ignition such as lighter.
- Depending on the altitude where you are camping, the range temperatures may be affected because of the thin air and minimal oxygen. In extreme altitudes you may not be able to heat food properly. The only real solution to this is to move to a lower altitude or pack cold food.

Read the owner or operator manual included in your Owner's Packet for detailed safety information and operating instructions pertaining to the range.

DANGER

Do not use gas cooking appliances for comfort heating. May lead to carbon monoxide poisoning, which can lead to death or serious injury.

WARNING

Do not turn the burner control knobs ON, allowing gas to escape before lighting a match or using an electronic igniting device.

WARNING

Gas cooking appliances need fresh air for safe operation. Before operating: Open vents or windows slightly or turn on exhaust fan prior to using cooking appliance. Gas flames consume oxygen, which should be replaced to ensure proper combustion. Improper use may result in death or serious injury.

RANGE HOOD

The range hood is equipped with a fan and light. The fan must be turned on whenever the range is in use to remove heat, smoke and moisture from cooking. Grease particles may build up on the filter of the hood. This filter should be hand-washed with mild soap and water annually or as needed. See the operating instructions of the range hood for detailed care and operating instructions.

MICROWAVE OVEN

The microwave operates much like other household microwaves and may be equipped with an air fryer feature.

General Information pertaining to the microwave:

- The microwave oven will only operate on 120V shore power or an appropriately sized generator.
- Even on shore power, the microwave and air conditioner may trip circuit breakers if they are operated at the same time. Turn the air conditioner to fan only during the time you wish to operate the microwave.
- Secure the turntable in the microwave before traveling. This will keep it from sliding around and causing damage.

Make sure you read the microwave's safety and operating instructions included in the Owner's Packet.

REFRIGERATOR/FREEZER

General information about the refrigerator/freezer and its operation:

- Generally, RV refrigerator/freezers are designed to keep food cool but are not intended to flash freeze or cool food quickly. Stock the refrigerator with already cold or frozen food.
- Arrange items in the refrigerator for free airflow between them.
- Vents on the driver side of your camper provide access to wire and gas connections in the rear of the refrigerator. Keep them clear and free of obstructions.
- Keep the cooling fins in the back of the refrigerator clean, free of frost and other accretions.
- Before going on a trip, operate the refrigerator on 120V power for 8 hours or overnight to cool it sufficiently and get it cold before using.
- A refrigerator thermometer kept in your refrigerator will help you monitor temperature inside.
- The refrigerator can operate on propane gas, 120V shore power or 12V. It will always take some amount of 12V power to operate the electronic controls.
- Movement during travel should not affect refrigerator performance much. For best results though, ensure the trailer is pulling level to the ground.

Make sure you read the refrigerator/freezer's safety and operating instructions included in the Owner's Packet.

NOTICE

The refrigerator must be level to operate properly. If the refrigerator is too much off level the refrigerator may malfunction and not cool properly

EQUIPMENT & HARDWARE

AWNING

Basic awning operating instructions:

1. Turn on the awning switch on the nuCamp control panel, located on the left inside the entry door. This will provide power to the control switch.
2. To the right of the entry door towards the dinette area is a spring return rocker switch. Press the "Arrow UP" button to extend the awning and press the "Arrow DOWN" button to retract the awning.
3. After positioning the awning as you desire, turn off the main power to it on the nuCamp control panel.

The awning is equipped with a motion sensor to retract the awning in case of high winds. This sensor is a black box located on the inside of the extended corner of the awning and is powered by two AAA batteries. If the batteries are low, a warning will sound. Replace the batteries with the same type as originally installed. Always retract the awning before traveling. To properly care for and for detailed operating instructions of the awning, consult the manufacturer's instruction manual included in the Owner's Packet.

WARNING

Pinch point hazard. Keep limbs clear of the arm extension when retracting the awning. Serious injury or death can occur from not keeping clear of pinching points.

BED OPERATION

The control panel mounted to the wall beside the bed includes the controls for the adjustable bed. The end of the bed can be lifted to access storage space underneath.

Tip: Raise the backrest for comfort while sleeping or to free up space in the bedroom for maneuverability.

CAUTION

When chances of high wind, heavy rain are present or when leaving the camper retract the awning completely. Failure to comply may result in damage to the awning.

DINETTE/BED CONVERSION

Under the dinette table you will find two levers. The black one releases the lock so the table can be adjusted vertically. The gray lever is pulled to adjust the table horizontally in any direction.

To convert the dinette to a bed:

1. Lift the seat cushions nearest to the galley on the right and left.
2. Pull the gray lever and align the table with the opening between seats.
3. Pull the black lever and push down on the table simultaneously until it reaches seat height.
4. Arrange the cushions on the left and right to create the bed.

To convert back to dinette:

1. Remove the cushions nearest to the galley.
2. Pull the black lever. The table will automatically rise.
3. Replace the cushions respectively.

TELESCOPIC DRY BATH

Properly operating the telescopic dry bath:

1. Remove the button strap on the left handle.
2. To extend, place your foot on the bottom track, grab the handles and pull them simultaneously toward you. This will keep the slide from jamming and extend its life.
3. Reverse the process to retract the door.

While in transit, secure the telescopic dry bath with the button strap. This will prevent damage from gravity forces during travel.

Securely close both tambour doors on the dry bath and shower while traveling.

INTERIOR ENVIRONMENT

PROLONGED OCCUPANCY

All nuCamp campers are designed for short-term occupancy and recreational use such as camping. If the camper is used as long-term living quarters, the warranty may be voided due to increased abnormal wear and tear since it was not designed for long-term living purpose. Premature degradation of structure and interior materials such as fabrics, drapes, curtains flooring, carpeting and even finished surfaces can occur. This will be perceived as misuse, neglect or abuse according to the warranty terms and conditions. Prepare yourself to deal with issues such as condensation and high humidity which can form mold and other damage from moisture-related issues. To protect your new camper and avoid costly repairs, manage moisture saturation within your camper. Practical information to do this is included in the following sections.

AIR QUALITY

Good air quality in your camper can be maintained by:

- Having proper ventilation to carry air pollutants out of the camper and dilute emissions from water vapor and off-gassing from interior sources.
- Avoiding harmful air pollutants such as cigarette smoke, pollen, pet dander, molds, carbon monoxide and household cleaners.
- Vacuuming often to remove pet dander and dust.
- Not smoking inside the camper as this can damage your camper and releases formaldehyde along with being a fire hazard.
- Not using bug sprays inside the camper.
- Keeping mold under control.
- Keeping condensation to a minimum.

There are three basic EPA recommended strategies to improve indoor air quality:

1. Control the Source.
2. Improve Ventilation.
3. Use Air Cleaners.

Read more at this link: https://www.epa.gov/indoor-air-quality-iaq/improving-indoor-air-quality.

Consider using an air purifier or air cleaner to promote clean air in your camper. A few points to note:

- Tabletop air cleaner models are generally less effective than full size models.
- For an air cleaner to be most effective, good air circulation and efficient air collection is a key element.
- Air cleaners generally are not designed to remove gaseous pollutants.

CONDENSATION

When the air temperature cools, it increases the water saturation in the air. Humidity is the amount of water in the air expressed as a percent. Condensation begins when the air has reached 100% humidity. Generally, condensation in a camper is from improper air flow. Most campers are compactly constructed, giving limited air space volume into which moisture can be assimilated. The average person can vaporize up to 1 gallon of water through normal daily activities such as cooking, bathing, washing and even breathing. If water vapor is not controlled and kept to a minimum by ventilation or use of a dehumidifier it will begin to collect on windows, inside walls and ceiling, and on cabinetry. This can lead to mold or mildew development.

To keep condensation to a minimum:

- Monitor the humidity in the camper with a hygrometer device.
- Keep relative humidity to 60% or less in warm weather and 35% or less in cold weather.
- Ventilate the camper when cooking, cleaning or sleeping using the range hood exhaust fan and installed ceiling vents.
- Turn on exhaust fans when showering or using a hair dryer.
- Hang wet clothes or towels outside to dry.
- Promote air circulation inside the camper with a portable fan.
- Avoid closing cabinets when they are full of stored goods unless the camper is in transit.
- In warm weather start the air conditioner earlier in the day.
- In cold weather, ventilate the cabin to keep humid air moving out.
- Use a dehumidifier to control humidity.

Using a dehumidifier and hygrometer device is the easiest control method to combat condensation. Small dehumidifiers and hygrometers can be purchased at electronics or building supply stores for a fraction of the cost of repairing condensational damage. Place your dehumidifier in a high air flow area rather than in a closet or enclosed space. Ideally, purchase a dehumidifier that can be continuously emptied into an appropriate drain or to the outside. This will allow you to run it continuously and not have to empty the bucket all the time. Otherwise you will have to empty the bucket frequently. Please do not use condensed water from the dehumidifier for sanitation or drinking purposes.

During cool, rainy weather, your camper will be more susceptible to condensation due to the higher water saturation in the air. At night, outside air temperature decreases which, in turn, increases humidity and allows condensation to form easier. It is important to ventilate the cabin while sleeping to remove humidity.

MOLD

Mold can grow on virtually any substance. It can have health effects such as allergic reactions, asthma, nasal congestion, coughing, wheezing and other irritations. While there is no way to fully eliminate mold growth there are some measures that can be taken to keep mold and mildew under control in your camper:

- Keep condensation and water vapor to a minimum.
- Ventilate the camper with the installed fans.
- Repair water leaks and liquid spills right away and dry excess moisture.
- Use the air conditioner, dehumidifiers and a hygrometer to control humidity.
- Use exhaust fans when showering, cooking, washing, or cleaning.
- Clean the camper on a regular basis.
- The kitchen and bathroom are where most water is used. Keep them clean and dry.
- On surfaces where it is safe, use cleaning products that kill mold and mildew.
- Teach all occupants how to recognize signs of mold.

If you suspect mold is present, have your camper tested by a professional. In the cases where you believe mold may have just started to form, kill it with a water/bleach or detergent solution. The water/bleach ratio is one-gallon water to one cup (or less) of household bleach. Never mix cleaners together such as ammonia and bleach. This is dangerous! Be sure to wear gloves and a mask to protect from irritants in the mold. Safely dispose of the rags and gloves. Ventilate or dry the area with a portable fan to remove all moisture.

OUTGASSING

Like most of the RV industry, nuCamp uses innovative products to develop camper product lines to serve the desires and needs of their customers. Carpet, linoleum, insulation, particle board, composites, plywood and upholstery are some common products that are used in the construction of most campers. These innovative products may outgas (or offgas) various chemicals and formaldehyde that were dissolved, trapped or absorbed in the materials. You may notice a chemical odor in high temperatures and humidity levels or when you have newly purchased your camper. Outgassing is not a defect or considered abnormal. Outgassing decreases over time.

CHEMICAL SENSITIVITY

Outgassing may arouse chemical sensitivity with various symptoms such as eye, nose or throat irritation, nausea, headache, allergies, coughing or wheezing. Elderly folks, children, and those with previous lung problems are more susceptible to outgassing effects. To reduce the effects of outgassing, ventilate and promote continuous airflow throughout the camper.

FORMALDEHYDE

Most chemical outgassing concerns involve formaldehyde. This colorless, strong-smelling gas is used in many building products such as pressed wood, particle board, fiberboard, paneling, plywoods and various other products. Formaldehyde is a naturally occurring substance that is present at low levels even in normal fresh air. Low levels of formaldehyde are also released from smoking, cooking and household products, including paints, cleaning agents and cosmetics. nuCamp RV campers contain composite wood products that follow the California Air Resource Board (CARB) formaldehyde emission standards as outlined by California Code of Regulations § 93120.2(a) Phase 2 (P2).

Reactions to formaldehyde vary. Most people are unaffected but a select few are quite sensitive and may have one or more of these symptoms:

- Watery eyes
- Burning sensations–eyes/nose/throat
- Coughing
- Wheezing
- Skin irritation
- Nausea
- In extreme cases, cancer

To reduce the chances of formaldehyde presence, ventilate and promote continuous airflow throughout the camper. More information on formaldehyde can be found at this link: https://www.epa.gov/formaldehyde/facts-about-formaldehyde.

PETS

Many happy campers love to take their beloved pets with them on excursions. The presence of a pet may affect the air quality in your camper, dependent upon its size, breed and type. Pets may release pet dander, hair, and allergens from saliva, urine and feces. Pet dander is the normal culprit for triggering reactions in those who have known pet allergies and occurs mostly from furred or feathered pets. Because of the smaller amount of air space in campers, air quality is affected more than in a normal house. You can limit the impact and presence of pet dander by observing the following:

- Brush furred pets daily, followed by vacuuming the area where you brushed.
- Bathe your pet regularly.
- Vacuum frequently. A vacuum with various attachments will help you reach those tight corners.
- Clean hard surfaces with microfiber cloths.
- If pets are allowed on furniture, clean it frequently.
- Have your pet sleep in a separate area on its own bed.
- Employ the use of an air purifier.
- Have your pet routinely checked by a licensed veterinarian to ensure good health.

MAINTENANCE

CLEANING CARE

Frequent maintenance and cleaning of your camper will contribute to the dependability, reliability, aesthetics and value of your unit.

CAUTION

Never use liquids such as lacquer thinner, nail polish remover, gasoline or other flammable compounds to clean your camper. Do not use abrasive materials to clean finished wood, plastic, vinyl, metals, glass, rubber or laminated surfaces. Damage will occur and your warranty may be voided.

Interior Cleaning:

Cabinetry & Finished Wood Products. Remove dust with a damp, clean cloth. Apply a quality furniture polish and buff with a soft dry cloth. DO NOT use ammonia-based products or silicone oils. Avoid extended periods of direct sunlight, high temperatures or high humidity exposures to finished wood products. Warping and finish degradation results from these exposures.

Laminated Tops. Use a soft cloth, mild dishwashing liquid and warm water. Dry with a soft linen cloth. DO NOT use steel wool, scouring pads or abrasive cleaners.

Walls & Paneling. Most surfaces can be cleaned with a soft sponge or cloth with mild liquid detergent in warm water. DO NOT use abrasive cleaners that scratch and mar the surface. Large amounts of water may saturate the material.

Floors. Periodically vacuum or sweep vinyl flooring to remove dirt. Once debris is removed, use a damp mop with water and a mild cleaner. DO NOT soak the flooring.

Shower Walls & Base. For routine cleaning use a mild dish soap and water to clean the walls and base of the shower. DO NOT use harsh detergents, abrasive cleaners, steel wool or razor blades as it will scratch or mar the surfaces.

Stainless Steel Sink. Use a glass cleaner or cleaner made specifically for stainless steel. DO NOT use steel wool, scouring pads or abrasive cleaners. Wipe with a damp soft cloth or sponge in warm water mixed with mild dish soap. Blot dry the surface with a towel to prevent water spots.

Vinyl Components. Do not dry-clean. This can cause shrinking and cracking. It should be cleaned by a qualified professional. If a spill occurs, do not rub it in, but rather blot it up.

Curtains, Blinds, Shades. Dust frequently with a soft brush-tipped vacuum or dust wand. Have them professional cleaned once a year.

Cleaning Agents. Check with the component manufacturer or ask your dealer for brand recommendations. If you are unsure if a detergent will work, test it in a small inconspicuous area before using in open areas.

Component Manufacturer. The best cleaning instructions for any surface are obtained from the component manufacturer. If you are unsure about a cleaning product, consult the manufacturer whether it is safe to use on that item or surface.

Exterior Cleaning:

Road Debris. The exterior of your camper is comprised of many different materials including fiberglass, metal, rubber, plastics, aluminum, glass and sealant. Road debris from traveling may accumulate on these materials and result in corrosion, staining, or chemical spotting. Frequent washings of the exterior will help protect from damage.

Salt Water. Salt water is highly corrosive. When towing in snowy areas in winter, especially where salt is used on roads, spray off the camper after every trip to remove corrosive salt. When traveling by oceans, avoid parking near salt water spray. The air near ocean shores is often laden with salt water. Wash your camper more frequently to reduce corrosion and wear.

Sunlight. Avoid washing the camper in direct sunlight. A shaded area is the best environment to wash your camper.

Water Drainage. It may be helpful to jack up the front of the camper slightly when spraying the camper so water trapped on the roof can drain off the rear.

Frequency. Wash your camper at least once a month. The roof should be cleaned every other month or as debris accumulation demands.

Cleaning Agents. A cleaning solution of mild liquid detergent and water with a pH range 3 to 11 and free of strong solvents, alcohol or other flammable liquid is ideal for most components. Check with the component manufacturer or ask your dealer for recommendations on brands. If you are unsure if a detergent will work, test it in a small inconspicuous area before using in open areas.

Instructions. Spray the camper thoroughly from top to bottom with water. Then, using a sponge or car washing mitt, hand wash the camper from top to bottom. Once done, rinse thoroughly and wipe dry with a soft linen cloth. Never use abrasive cleaners.

Graphics. Clean with the rest of the trailer. Test detergent solutions on inconspicuous areas before using on large areas.

High Pressure Spray. Use extreme caution when using any type of pressure sprayer around attachments, doors, windows, and appliance vents. Make sure to keep the washing nozzle about 16 inches or more away from the RV and hold the nozzle at right angles when washing around doors, vents and window areas. Be very careful when cleaning graphics. Never direct the spray nozzle towards edges of graphics. DO NOT use automatic car washes.

Waxing. Wax the camper exterior twice a year. The use of automotive waxes or cleaners/polishes that are for use on fiberglass or boats are acceptable. Ask for recommendations from your dealer if you are unsure of what to use. Exterior streaking, corrosion, staining, or chemical spotting can be reduced with frequent waxing. Always wash and dry the camper before waxing it.

⚠ CAUTION

There are some types of washing equipment that can apply heat and high pressure to your RV. Excessive heat can cause distortion and excessive pressure can possibly flood the RV's interior. Avoid using hot water with high pressure washing. Damage will occur and your warranty may be voided.

STORAGE PREPARATION

Unless you live in the sunny south, you will need to prepare your camper each fall to face the cold winter months. It is very important that you follow the instructions in this section to properly care for your camper. The best practice for storing your camper is to store it indoors in a warm controlled climate (above 40°) and lifted off the ground on jack stands to relieve pressure on tires. Indoor storage also lessens the amount of work needing to be done for storage preparation. Two different ways of storing your camper are outlined below.

Outdoor Storage:

1. Winterize the plumbing system. This is crucial in temperatures below 32°.
2. Clean your RV as outlined in the cleaning care instructions.
3. Turn off electrical switches and all 12V DC/120V/propane gas appliances.
4. Shut off the propane gas cylinder (LP tank) main valve.
5. Cover the external outlets, vents and windows of your RV to prevent moisture, mice or rodents from entering.
6. Check the interior of the RV for leaks or any formed condensation that can cause damage to interior components. To help reduce condensation from the interior, occasionally air out the camper during storage.
7. Cover roof air conditioner if so equipped.
8. Disconnect the 120V AC power.
9. Charge batteries to full capacity to avoid freezing and cracking in the case. In storage, a battery will gradually lose charge after 30-45 days. Check the battery once a month and if the charge is at 80% or less, recharge it.
10. Check the tire pressure monthly and keep tires fully inflated.
11. If possible, lift the trailer onto jack stands to relieve pressure on tires.
12. Cover tires with appropriate tire covers.
13. During the storage period, keep the roof of the camper free of snow and ice to prevent damage to the unit's structure.
14. For best results when storing outdoors, cover your entire camper with an RV cover to protect it from the elements.

Indoor Storage:

1. Clean your RV as outlined in the cleaning care instructions.
2. Turn off electrical switches and all 12V DC/120V/propane gas appliances.
3. Shut off the propane gas cylinder (LP tank) main valve.
4. Disconnect the 120V AC power.
5. Charge batteries to full capacity. Check the battery once a month. If the charge is at 80% or less, recharge it.
6. Check tire pressure monthly and keep tires fully inflated.
7. If possible, lift the trailer onto jack stands to relieve pressure on tires.

CAMPING SEASON PREPARATION

Preparation for the camping season (or at any given time):

1. Open vents and windows and air out the camper. Turn on ventilating fans.
2. Check water, gas and any other pipelines or tubes for insects such as spiders and mud dauber wasps that frequently build nests and clog tubes. This can be especially dangerous in gas pipelines as gas can become trapped and carbon monoxide may result and cause death.
3. Clean the camper thoroughly. Inspect the trailer for caulking failure, water damage, and rodent or insect intrusion.
4. De-winterize and sanitize the fresh water system in your camper. See instructions on pages 37-38.
5. Pressurize the water system and check for leaks by operating every faucet and water outlet and observing fittings and connections for leaks.
6. Inspect the electrical system. Check power cords, converter, outlets and wiring for damage.
7. Check battery terminals for corrosion, turn on battery switch, and check battery charge levels.
8. Check circuit breakers and fuses in the converter box for function.
9. Test all the lights and other accessories for proper function.
10. Check the propane piping for leaks. If no leaks are found, slowly turn on LP tank valves.
11. Turn on appliances one by one and test with propane and/ electricity for proper function.
12. Put a new battery into the smoke alarm. Ensure all safety alarms are working properly.
13. Follow manufacturer instructions for each component's operation.
14. If any issues are found in your trailer and you cannot perform the maintenance yourself, consult your authorized nuCamp dealer for assistance.

Maintenance Schedule

ITEM	PRE-TRIP	MONTLY	EVERY 3 MOS.	EVERY 6 MOS.	EVERY 9 MOS.	YEARLY	AS REQUIRED	PROCEDURE *See appropriate sections for specific procedure instructions*
Appliances	●							Check for obstruction on exterior vents
Battery			●					Check battery condition
Bearings						●		Repack wheel bearings
Brakes			●				●	Check and adjust
Cabinets				●			●	Apply furniture polish
Carpeting	●							Vacuum
Chassis						●		Lubricate & clean
Electrical System			●				●	Check proper operation and for damage
Exterior Lighting								Verify proper operation of all lighting
Exterior Protection				●				Apply automotive/marine wax
Exterior Roof		●						Wash with mild car wash type soap
Exterior Wall		●						Wash with mild car wash type soap
Doors	●							Check seals, lubricate hinges
Frame			●					Inspect and touch-up paint as needed
Hitch Coupler	●							Check proper operation and for damage
Hitch Jack	●							Check proper operation and for damage
Interior Surfaces			●				●	Clean
Lug Nut Torque	●						●	Check lug nut torque prior to trip
Propane System	●					●		Check for leaks and damage
Safety Chains	●							Verify attachment and free of damage
Safety Equipment	●							Verify operation of all safety detectors
Sealants			●				●	Inspect caulking seals and reseal if needed
Tires	●							Check tire condition/inflation pressure
Upholstery					●		●	Clean
Water System	●						●	Check for leaks and proper operation
Weight Distribution	●							Verify proper weight distribution
Wheel Bearing	●			●			●	Inspect and add grease as required
Drains		●						Verify drains are free of obstruction
Window						●		Lubricate with graphite-based lubricant
Wood Surfaces		●						Clean
Annual Inspection						●		Complete annual inspection by dealer

Maintenance Record

DATE	DESCRIPTION	SERVICE CENTER

TROUBLESHOOTING

This section is a collection of tried and true answers to the most popular troubleshooting questions posed to the nuCamp RV Customer Service team. These are not final answers to any issues you might have since individual product manufacturers are the final authority in determining the cause of issues. They are simply suggestions for steps you may take to resolve your issue easily. If you cannot find what troubleshooting information you need in this section, contact your nearest dealer or other qualified service technician to perform inspection and troubleshooting. Troubleshooting performed by unqualified individuals may not be covered under warranty.

ALDE® SYSTEM

1. Red overheat failure
   a. You have air-pockets in your system. Open the bleeder valves located on the Alde®. After sufficiently bleeding the Alde®, disconnect the 12v power supply line going into the Alde® control center and allow it to sit for at least 5 minutes.
   b. If that did not resolve the issue, consult your nuCamp dealer.
2. Insufficient hot water
   a. Adjust your mixing valve (located underneath the sink near Alde®) by turning the valve towards the "+" symbol, allowing more hot water to enter the mixing valve.
   b. If this did not work, contact your nuCamp dealer for further instructions.
3. Control panel will not turn on
   a. Check your 3.15amp glass fuse found underneath the service hatch on your Alde® System, located in the green fuse housing. Replace.
4. Gas failure
   a. Most likely a low 12V battery. There is not enough power to deliver the propane from the tank to the Alde®.
   b. If you have a charged battery, the problem would most likely be an empty tank.
5. Alde® System not heating on shore power
   a. The Alde® System is designed to not only run on propane gas, but also 110V and 12V. When you are plugged into a household 15-amp outlet, make sure to have the Alde® KW setting on 1KW. When running the Alde® on 20 or 30-amp, change the KW setting to 2KW.
   b. Make sure the black power cord is plugged into the 110V outlet beside the Alde® boiler.

PLUMBING SYSTEM

1. Water leaking when connected to city water or running pump
   a. This is most likely the relief valve for the Alde® Hot Water tank or Flow. When there is too much pressure, these valves will open. It can also be caused by the trailer sitting for long extended periods of time. To resolve, open and close both relief valves to reseal.
   b. If this did not resolve the issue, please contact your nearest nuCamp RV Dealer to have the unit looked at on-site.
2. Water pump stopped working
   a. Check the filter located on the inlet side of your water pump for debris. This can happen on brand-new units. It is caused by metal shaving buildup during construction.
   b. Check for any open drain valves or relief valves that would hinder the pump from priming.
3. Water is leaking inside my unit
   a. Contact your local nuCamp RV dealer and have the unit looked at on-site.

ELECTRICAL SYSTEM

1. No 12V power
   a. Check your battery circuit breaker to make sure it is not tripped.
   b. Check your battery connections to make sure all leads are tight and properly connected.
   c. Check your battery fuse located in the 55-amp converter.
   i. If the problem is not found in these locations, call your local dealer or service center to have the problem diagnosed.
2. No power with 30-amp connection
   a. Check your main breaker inside the converter and make sure your 30-amp connection is properly connected.
   b. Inspect the main power line coming in from the 30-amp connection for any cuts in the line or loose connections to the backend of the converter.
3. Flickering running lights/brake lights
   a. This is most likely a loose connection. Contact your local dealer to have the unit inspected.
4. Battery charging failure during transport
   a. Check your battery circuit breaker.
   b. Make sure your battery disconnect switch is on the 'ON' / green position.
   c. Check your battery terminal connections.
   d. Make sure you have a charge line installed on your TV.
5. Failure of any AC components
   a. Check 110V breakers located inside the converter.
6. Failure of any DC components
   a. Check fuses inside converter.

PROPANE GAS SYSTEM

1. Liquid "gas" at my appliance
   a. LP tank(s) are overfilled. A qualified propane gas service technician must inspect the LP tank(s) and correct fill volume to below 80%.
   b. Temperature is too cold.
   c. LP tank is not upright.
2. Appliances do not light or stay lit
   a. Excess air or moisture is trapped in your system. Your dealer or other qualified service technician must purge the system.
3. Regulator indicates "green" but there is no gas in the system
   a. Is frost present on the regulator? It may be frozen.
4. Frozen or frosted regulator
   a. Humidity in the air has become high enough to condensate and regulator temperature has caused it to be frozen. Use an incandescent light bulb or heated blanket to warm up the regulator. DO NOT use a hair dryer or any kind of open flame.
   b. LP tanks are overfilled. A qualified propane gas service technician must inspect the LP tank(s) and correct fill volume to below 80%.

1 YEAR CRAFTSMANSHIP WARRANTY

nüCamp

nuCamp agrees to warrant the integrity of the camper/trailer for up to one (1) year from the date of purchase (Warranty Period). This does not include equipment or parts with separate, stand-alone warranties. This warranty covers nuCamp campers/trailers manufactured on or after April 30, 2018.

TRANSFERRABLE

3 YEAR STRUCTURAL WARRANTY

nüCamp

In addition to our 1-Year Limited Warranty, nuCamp agrees to warrant the structural integrity of the camper/trailer (roof, floors, front walls, rear walls, sidewalls, and hatch door, where applicable) for up to three (3) years from the date of purchase (Warranty Period). This does not include electrical systems, plumbing, or any system components or other items excluded under the warranty provided. 3rd-party components parts may be warranted by their respective manufacturers.

This warranty covers nuCamp campers/trailers manufactured on or after April 30, 2018.

SERVICE & WARRANTY

nuCamp LIMITED WARRANTY

WARRANTY COVERAGE

nuCamp warrants that it will repair or replace defects in material or workmanship in any components of a new nuCamp camper purchased from an authorized nuCamp dealer in the United States or Canada for a period of one year from the date the trailer is first delivered to the original retail purchaser. In order to obtain coverage under this Limited Warranty, you must notify an authorized nuCamp dealership or nuCamp of the warrantable defect no later than ten (10) days following expiration of this Limited Warranty. nuCamp's obligation to repair or replace defective materials or workmanship is the sole obligation of nuCamp under this Limited Warranty. nuCamp reserves the right to use new or remanufactured parts of similar quality to complete any warranty work.

LIMITATION OF IMPLIED WARRANTIES

IMPLIED WARRANTIES ARISING UNDER APPLICABLE LAW, IF ANY, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY LIMITED IN DURATION TO THE TERM OF THIS LIMITED WARRANTY. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE HEREBY DISCLAIMED BY NUCAMP. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

DISCLAIMER OF INCIDENTAL AND CONSEQUENTIAL DAMAGES

nuCamp hereby disclaims any and all incidental and consequential damages arising out of or relating to the trailer, including expenses such as transportation to and from vehicle dealerships and nuCamp repair facilities, loss of time, loss of pay, loss of use, inconvenience, commercial loss (including lost profits), towing charges, bus fares, vehicle rental, service call charges, gasoline expenses, incidental charges such as telephone calls and facsimile transmissions, and expenses for lodging. This disclaimer is independent of any failure of the essential purpose of any warranties provided with a trailer and shall survive any determination that a warranty failed of its essential purpose. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

REPAIR REMEDY

If within the one (1) year Limited Warranty period a defect in material or workmanship is found to exist that is not excluded from coverage, nuCamp's sole and exclusive obligation shall be to repair the defect. As a limited backup remedy in the event the RV cannot be repaired, to determine in the sole and absolute discretion of nuCamp, after a reasonable opportunity to repair, nuCamp may, at its option, either (1) pay you an amount equal to nuCamp's determination of the diminution in value of the RV that was caused by the defect, or (2) provide a similar replacement RV, less a reasonable allowance for the owner's use of the original RV, to be determined by nuCamp. Please note that any performance of repairs after the coverage period expires or any performance of repairs to those portions of your RV excluded from coverage shall be considered "goodwill" repairs, which shall not alter the express terms of this Limited Warranty.

WARRANTY CLAIM PROCEDURE

Upon discovery of a defect, please contact nuCamp within five business days by registered letter, phone call (330-852-4811), or visit the warranty section of the nuCamp website (nucamprv.com). Please be prepared to provide the VIN number of the trailer along with your name and best mode of contact (along with hours, if necessary).

OBTAINING WARRANTY SERVICE

If you have not registered your warranty, you will be asked to provide your bill of sale, so that the purchase date can be verified. In order to obtain warranty service under this Limited Warranty, the owner must do all of the following:

1. Owner and dealer representative must complete and return the Customer Performance Checkout within 10 days from delivery of the trailer;
2. Notify nuCamp or one of its authorized, independent dealers, of any claimed defect within the warranty period or 10 days thereafter;
3. Provide notification of a defect within 10 days of discovery of that defect;
4. Promptly return the trailer to an authorized nuCamp dealer or nuCamp for repairs.

If you believe a defect covered by this Limited Warranty still exists after an attempted repair by an authorized nuCamp dealer, you must contact nuCamp specifying:

1. The complete serial number of the trailer;
2. The date of original purchase and the date of original delivery;
3. The name of the selling dealer;
4. The nature of the problem and the steps or service which have been performed.

nuCamp may direct you to an authorized nuCamp dealer or may request that you bring your trailer to the nuCamp factory in Sugarcreek, Ohio for repairs.

nuCamp does not control the scheduling of repairs at its authorized nuCamp dealers, and repairs at the nuCamp factory may not be immediately available. Therefore, you may encounter delays in scheduling repairs and/or completion of repairs. All costs associated with transporting the trailer for any warranty service shall be the sole responsibility of the owner

WHAT IS NOT COVERED BY THIS LIMITED WARRANTY

This Limited Warranty does not provide coverage for any of the following:

1. Tires, batteries, stereo, television, range/stove, furnace, refrigerator, water heater, microwave, generator, and other materials, parts and components warranted by persons or entities other than nuCamp. Please refer to the warranties of component manufacturers for terms and conditions of coverage.
2. Any part or component of the trailer that was not manufactured or installed by nuCamp;
3. Normal deterioration due to wear or exposure, including but not limited to rust, corrosion, oxidation, and cosmetic blemishes;
4. Normal maintenance and service items, including but not limited to light bulbs, fuses, lubricants, sealants and seals, door adjustments, and awning tension;
5. After-market equipment or accessories installed on the trailer after completion of manufacture by nuCamp, or any defects or damage caused by such items;
6. Trailers not purchased through an authorized dealer of nuCamp trailers, and trailers purchased directly or indirectly through auction, salvage, repossession, or other non-customary sale means;
7. Defects or damage caused by, in whole or in part, or in any way related to:
    a. Accidents, misuse (including off-road use), or negligence.
    b. Failure to comply with the instructions set forth in any owner's manual provided with the trailer.
    c. Alteration or modification of the trailer except such alterations or modifications approved in writing by nuCamp.
    d. Acts of God or other environmental conditions, such as lightning, hail, salt, or other chemicals in the atmosphere.
    e. De-icing agents or other chemicals applied to the trailer.
    f. Failure to properly maintain or service the trailer, including but not limited to the maintenance of lubricants, sealants, and seals.
    g. Condensation and the results of condensation including water damage and the growth of mold or mildew. Mold and mildew are natural growths given certain environmental conditions and are not covered by the terms of this Limited Warranty.
    h. Use of the trailer other than for temporary recreation purposes, including but not limited to use of the trailer for residential, disaster relief, commercial, or rental purposes.
    i. The addition of weight to the trailer that causes the trailer's total weight to exceed applicable trailer weight ratings, or addition of weight causing improper distribution of the weight of the trailer.
    j. Selection, use, and operation of any hitch assembly.
    k. Failure to seek and obtain repairs in a timely manner.
    l. Failure to use reasonable efforts to mitigate damage caused by defects.
    m. Failure to properly ventilate the trailer.
    n. Improper electric power supply or improper vehicle hookup to other facilities.

EXCLUDED FROM COVERAGE

- Equipment or parts with separate, stand-alone warranties (axles, fans, tires, converters and any appliances).
    - *Fan-Tastic Vents (Dometic): 800-544-4881 or warranty@dometicusa.com*
    - *Dexter Axle: 574-296-7329*
    - *Tredit Tire & Wheel: 855-8-TREDIT or warranty@tredittire.com*
    - *Harris Battery: 800-367-7670 or sales@harrisbattery.com*
    - *Dometic Stoves: 888-867-4188 or warranty@dometicusa.com or techservice@dometic.com*
    - *Arterra Distributions (WFCO Converter): 877-294-8997 or warranty@wfcoelectronics.com*
    - *ASA Electronics: 877-305-0445 Customer Service Support or 877-845-8750 for technical assistance*

- Misuse, abuse, collision, improper repairs, overloading, neglect or lack of maintenance which results in damage.

- Alteration or installation of equipment, not approved by nuCamp, that results in damage. This includes, but is not limited to electrical, gas, plumbing or structural issues.

- Normal wear, fading or deterioration of fabrics, flooring, graphics or metal components including weathering, discoloration, surface corrosion of unpainted surfaces or minor blemishes due to normal use.

- Any product used outside of the intended scope of its customary purpose.

- Any unregistered product not normally used in the US or Canada.

- Any product used as a rental unit.

- Any promises made by any person beyond what is stated in this document.

- Condensation on any window or other parts or any results of condensation.

nuCamp shall not be liable for incidental or consequential damages, such as expenses for transportation, lodging, damage to personal property, loss of personal property, loss of use of your product, inconvenience or loss of income. Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation may not apply specifically to you.

DEALER REPRESENTATIONS EXCLUDED
The entire Limited Warranty provided by nuCamp is set forth herein. nuCamp will not be responsible for any additional representations or warranties made by any person or entity other than nuCamp, and nuCamp's obligations are solely as set forth in the terms and conditions of this Limited Warranty

STATUTE OF LIMITATION
No action may be brought against nuCamp for breach of this Limited Warranty, any applicable implied warranty, or for any other claim arising out of or relating to a nuCamp trailer, more than thirty (30) days after: (1) expiration of the one year (12) month Limited Warranty period; or (2) expiration of the ten (10) day notice period that follows expiration of the Limited Warranty period, if such notice is given.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

CHANGES IN DESIGN
nuCamp reserves the right to make changes in design and improvements upon its products from time-to-time, without imposing upon itself any obligation to install additional features in your trailer.

LEGAL PROCEDURES
In addition to the provisions of this warranty, the retail purchaser has available the legal remedies provided by the Magnuson-Moss Warranty Act and any applicable State statutes. Implied warranties, including any warranty of merchantability or fitness of a product for a particular purpose, are limited in duration to the term of this written warranty. Some states do not allow limitation on how long such a warranty lasts, so the above limitation may not apply. You may have rights, outside of what this warranty states, which is on a state-by-state basis.

REPLACEMENT PARTS

While most parts of your camper are replaceable, some may not be. This is due to availability of product or supply and demand of the markets and manufacturers outside of nuCamp. Should you need a replacement part, your dealer will be able to get it for you. If parts from the OEM (Original Equipment Manufacturer) are unavailable, nuCamp or your dealer will try to offer an alternative solution or substitute according to their abilities.

AFTERMARKET ALTERATIONS

Many folks in the nuCamp family love to personalize and make their camper unique through various accessories, additions and aftermarket alterations. nuCamp encourages and enjoys seeing their customers fully enjoy their experience with their products.

Important information to know and understand BEFORE you install aftermarket parts and personalize your camper:

1. Important safety items can be damaged by installation of aftermarket parts. Even driving fasteners into a component, depending on where it is, can damage functionality of items that contribute to safety.
2. ALWAYS consult your dealer to discuss the eligibility of installing the aftermarket part and make sure your plan is safe.
3. Make sure water sealing is not compromised by the aftermarket part, component, accessory or other equipment you are installing and will not impede function of previously installed components by nuCamp.
4. Any parts and components of the camper affected by and along with the aftermarket part, component, accessory or other equipment installed may lose warranty coverage as outlined in the nuCamp warranty terms and conditions. It is the sole responsibility of the owner, supplier or installer of the product.

DEALER SERVICE CENTER

Always call ahead for a service appointment unless you have a true emergency. Monday and Friday are usually the busiest days for dealer service departments, as well as just before a holiday. Allow ample time to schedule your camper for service.
When you call to schedule your appointment, have the following information available:

1. VIN (Vehicle Identification Number) containing 17 letters and digits
2. Brand, model and floorplan of unit (ex. nuCamp TAB 320 S)
3. Date of purchase
4. Description of problem
5. Photos of damage
6. Service Record from page??? (or repair history).
7. Service dates that fit your schedule.

For safety reasons, most insurance policies prohibit non-employee personnel to be in the work area. If it is necessary for you to wait until the repairs are completed, most dealers provide you with a safe, comfortable customer lounge.

nuCamp does not offer warranty coverage on equipment or accessories installed at any dealership, other place of business, or by any other party than nuCamp.

NUCAMP SERVICE CENTER

Service will be performed by appointment only. When you require service or repair for your trailer from the nuCamp Service Center, contact the service manager for an appointment.

Have the following information available:

1. VIN (Vehicle Identification Number) containing 17 letters and digits.
2. Type of unit (ex. TAB 320 S)
3. Date of purchase
4. Description of problem
5. Photos of damage
6. Service record from page 59.
7. Service dates that fit your schedule.

CONTACTING US

As a general policy, nuCamp prefers customers bring questions to their dealer first and foremost. nuCamp strives to provide excellence in customer service for the nuCamp Family. It may be tempting to take advantage of the convenience; however, your dealer is equipped to answer all your questions and offers vast experience in the field. nuCamp desires that you only contact the nuCamp Customer Service, Warranty and Repair Departments for necessary issues such as warranty service, repairs and for cases where your dealer is unable to provide the information you need.

E-mail: customerservice@nucamprv.com
warranty@nucamprv.com
repairs@nucamprv.com

Phone: 844-823-9112
Fax: 330-556-4415

Website: nucamprv.com

Mailing Address: P.O. Box 395
Sugarcreek, OH 44681

Physical Address: 661 Belden Parkway
Sugarcreek, OH 44681

REPORTING SAFETY DEFECTS

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

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or nuCamp RV.

To contact NHTSA, you may call the Vehicle Safety Hotline

Toll-free at 1-888-327-4236 (TTY: 1-800-424-9153);
Go to http://www.safercar.gov;
Or write to: Administrator, NHTSA,
400 Seventh Street, SW.,
Washington, DC 20590.

You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

In the U.S:

If you find that your vehicle has a safety defect that could cause an injury, accident or death, immediately inform the National Highway Traffic Safety Administration (NHTSA) and Customer Service. If the NHTSA receives multiple complaints of similar defects, they may open an investigation and a recall and remedy solution may be launched. The NHTSA will not become involved in your individual case. Individual cases will be negotiated between you, your dealer and nuCamp RV.

NHTSA Contact Information:

Website: www.safercar.gov
Address: NHTSA Headquarters
Toll-free: 1-888-327-4236
TTY: 1-800-424-9153

Attn: Administrator
1200 New Jersey Avenue, SE
Washington DC 20590

In Canada:

If you find that your vehicle has a safety defect that could cause an injury, accident or death, immediately inform Transport Canada and nuCamp RV Customer Service.

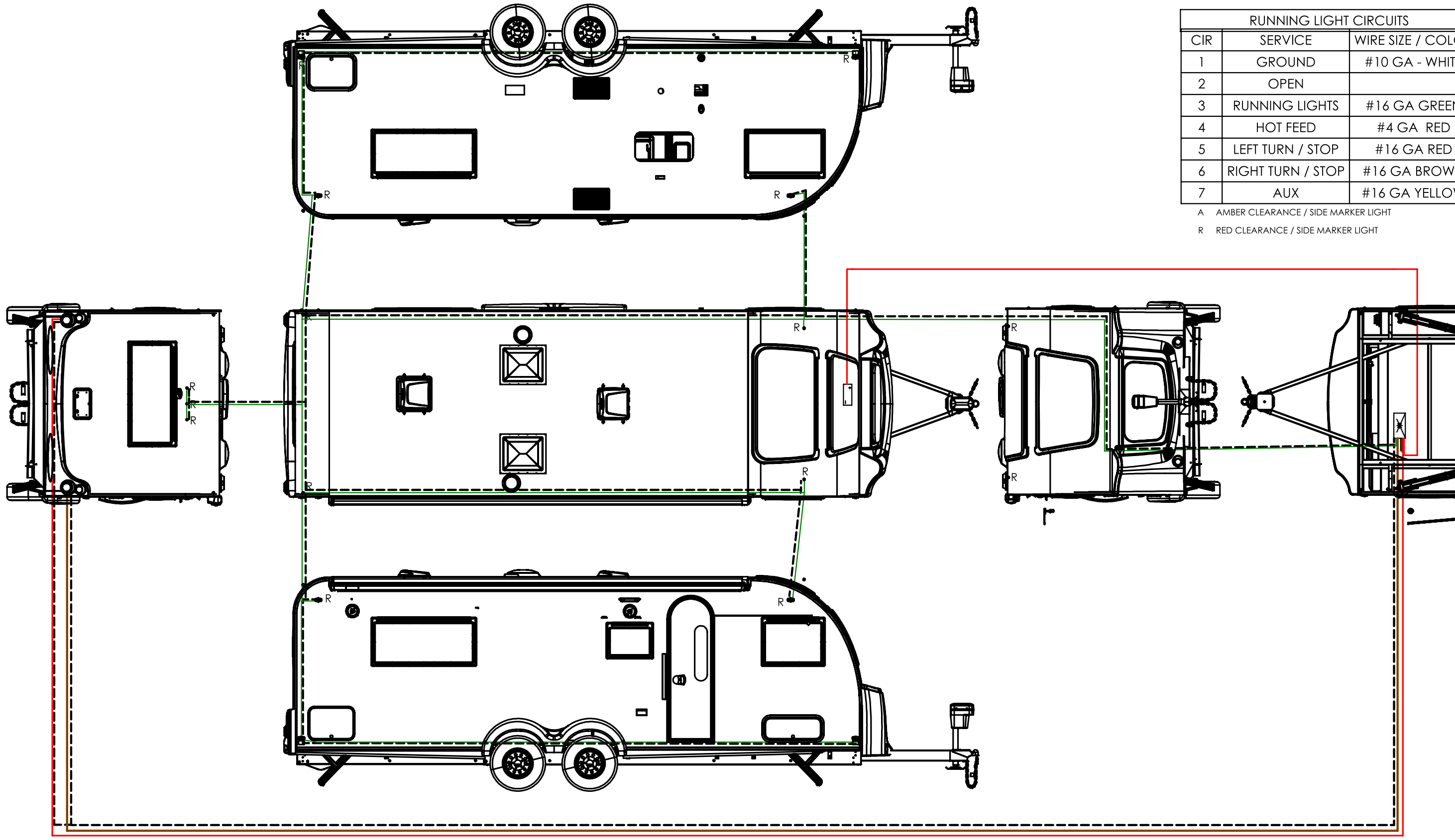
Transport Canada Contact Information:

Website: www.tc.gc.ca
Address: Transport Canada
Toll-free: 1-800-333-0510
International: 1-819-994-3328

Defect Investigations & Recalls Division
330 Sparks Street
Ottawa ON K1A 0N5
Canada

SCHEMATICS

RUNNING LIGHT CIRCUIT



RUNNING LIGHT CIRCUITS		
CIR	SERVICE	WIRE SIZE / COLOR
1	GROUND	#10 GA - WHITE
2	OPEN	
3	RUNNING LIGHTS	#16 GA GREEN
4	HOT FEED	#4 GA RED
5	LEFT TURN / STOP	#16 GA RED
6	RIGHT TURN / STOP	#16 GA BROWN
7	AUX	#16 GA YELLOW

A AMBER CLEARANCE / SIDE MARKER LIGHT
R RED CLEARANCE / SIDE MARKER LIGHT

IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:

PRINT :

DEPARTMENT

MATERIAL

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

FINISH

DATE:

DRAWN BY: ZTJ

APV'D BY:

nüCamp

DESCRIPTION RUNNING LIGHT CIRCUIT

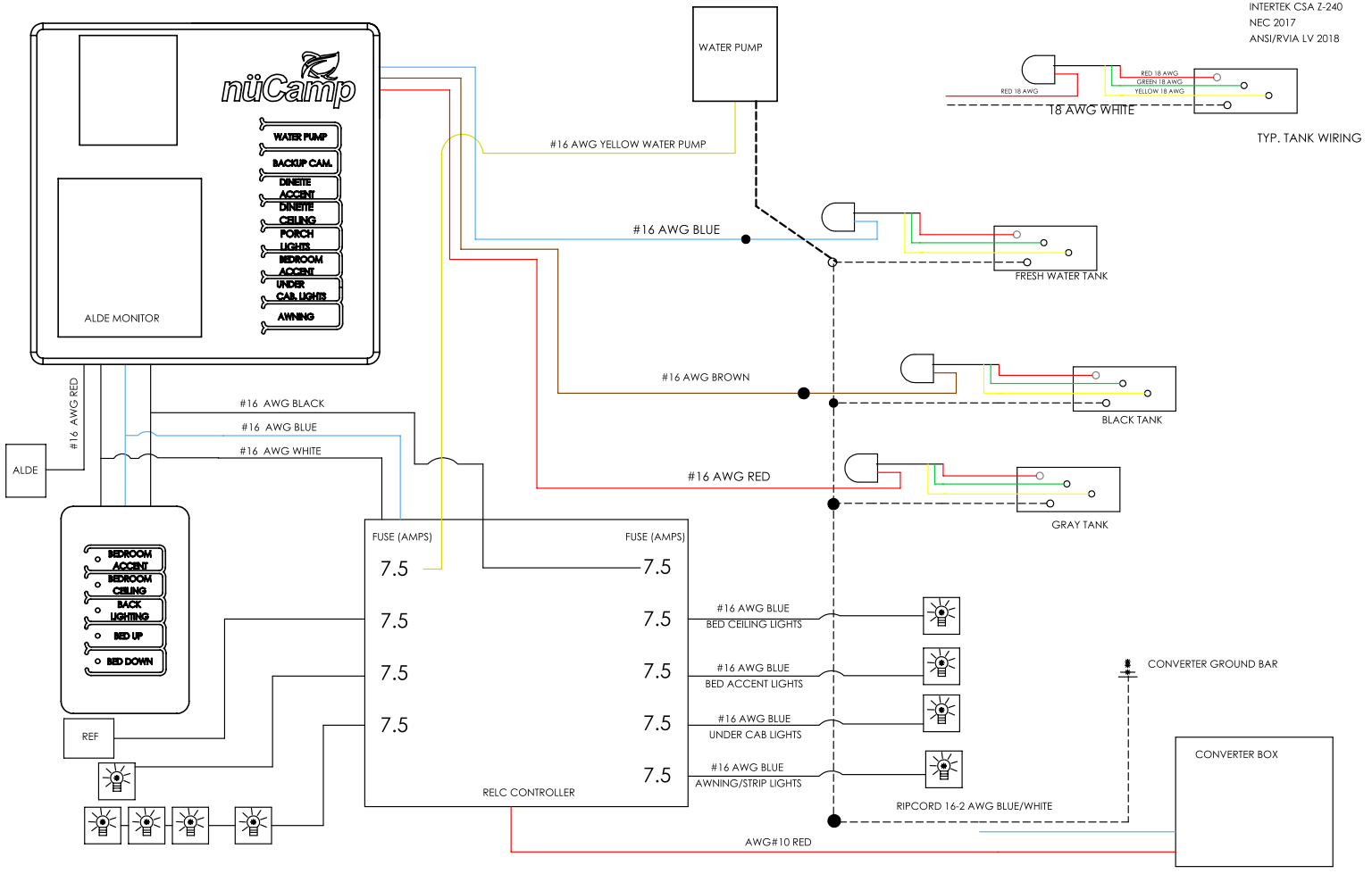
PART NUMBER

REVISION

5 4 3 2 1

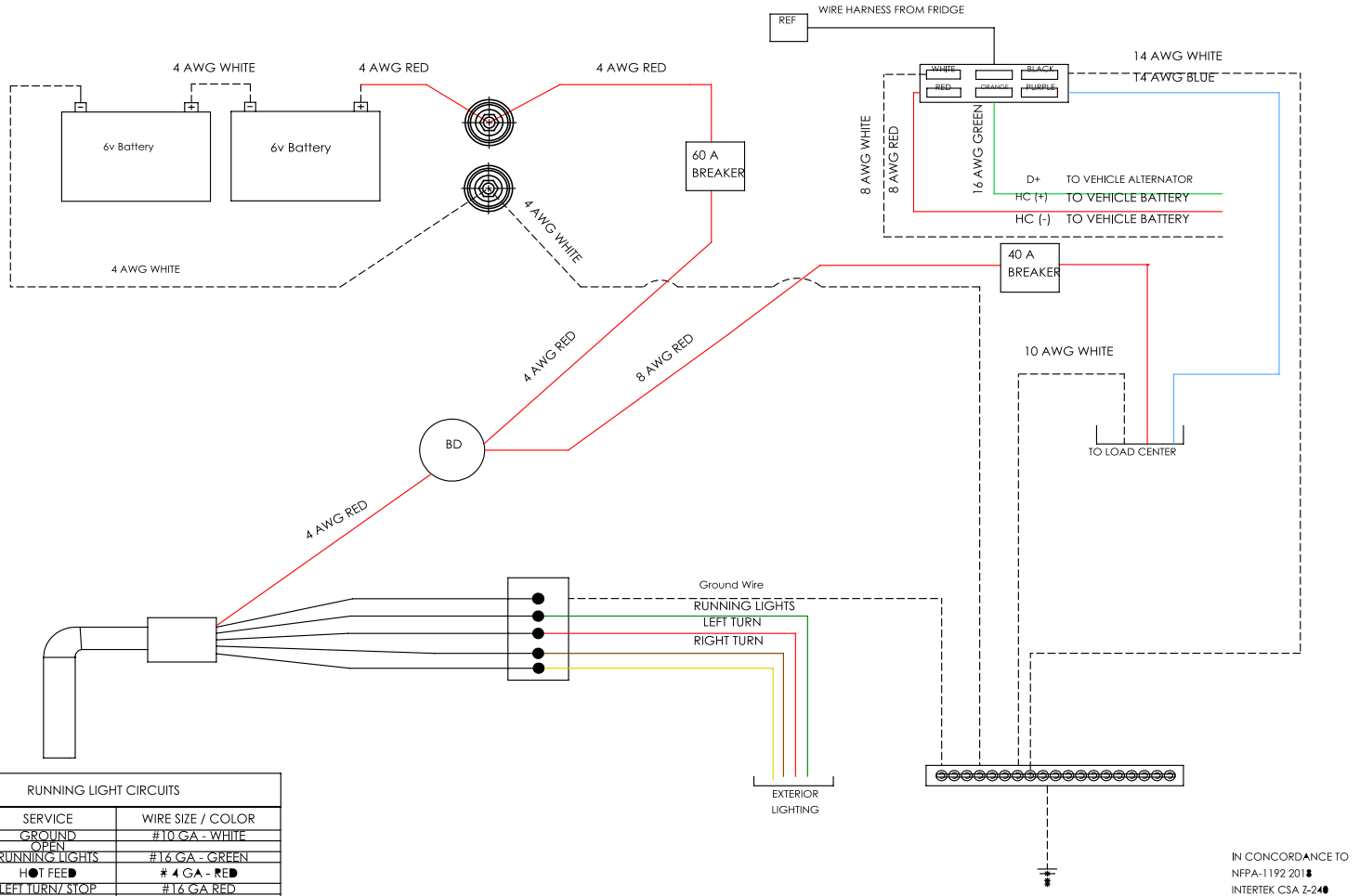
A B C D E F

PANEL MONITOR WIRING



PROJECT:	PRINT :		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE:
		DEPARTMENT		DRAWN BY: ZTJ
		MATERIAL	FINISH	APV'D BY:
		DESCRIPTION	PANEL MONITOR WIRING	PART NUMBER / REVISION

TYPICAL 12V SYSTEM



RUNNING LIGHT CIRCUITS		
CIR	SERVICE	WIRE SIZE / COLOR
1	GROUND	#10 GA - WHITE
2	OPEN	
3	RUNNING LIGHTS	#16 GA - GREEN
4	HOT FEED	#14 GA - RED
5	LEFT TURN/ STOP	#16 GA RED
6	RIGHT TURN/ STOP	#16 GA BROWN
7	AUX	#16 GA YELLOW

IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:

PRINT :

DEPARTMENT

MATERIAL

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

FINISH

DATE:

DRAWN BY: ZTJ

APV'D BY:

nüCamp

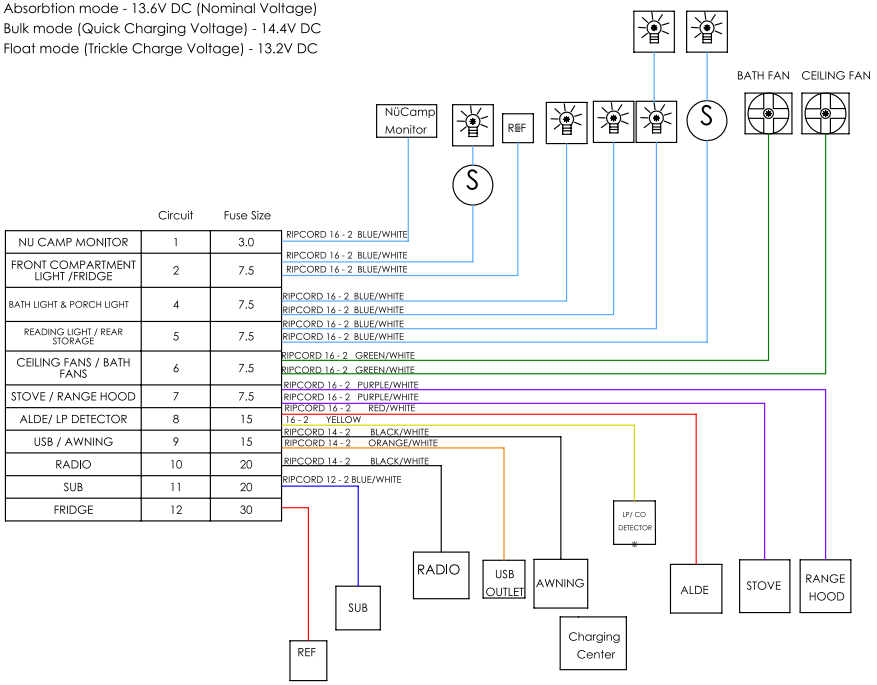
DESCRIPTION
TYPICAL 12v SYSTEM

PART NUMBER

REVISION

WFC 8900 SERIES POWER CONVERTER

WF-8955 Power Converter
Output Power 940W
Input Voltage/ Hz - 105 VAC - 130 VAC, 60 Hz
Output Current - 55 Amps
Converter Type Three Stage Converter/ Charger
Voltage Output - 13.2 - 14.4V DC Range
Absorbtion mode - 13.6V DC (Nominal Voltage)
Bulk mode (Quick Charging Voltage) - 14.4V DC
Float mode (Trickle Charge Voltage) - 13.2V DC



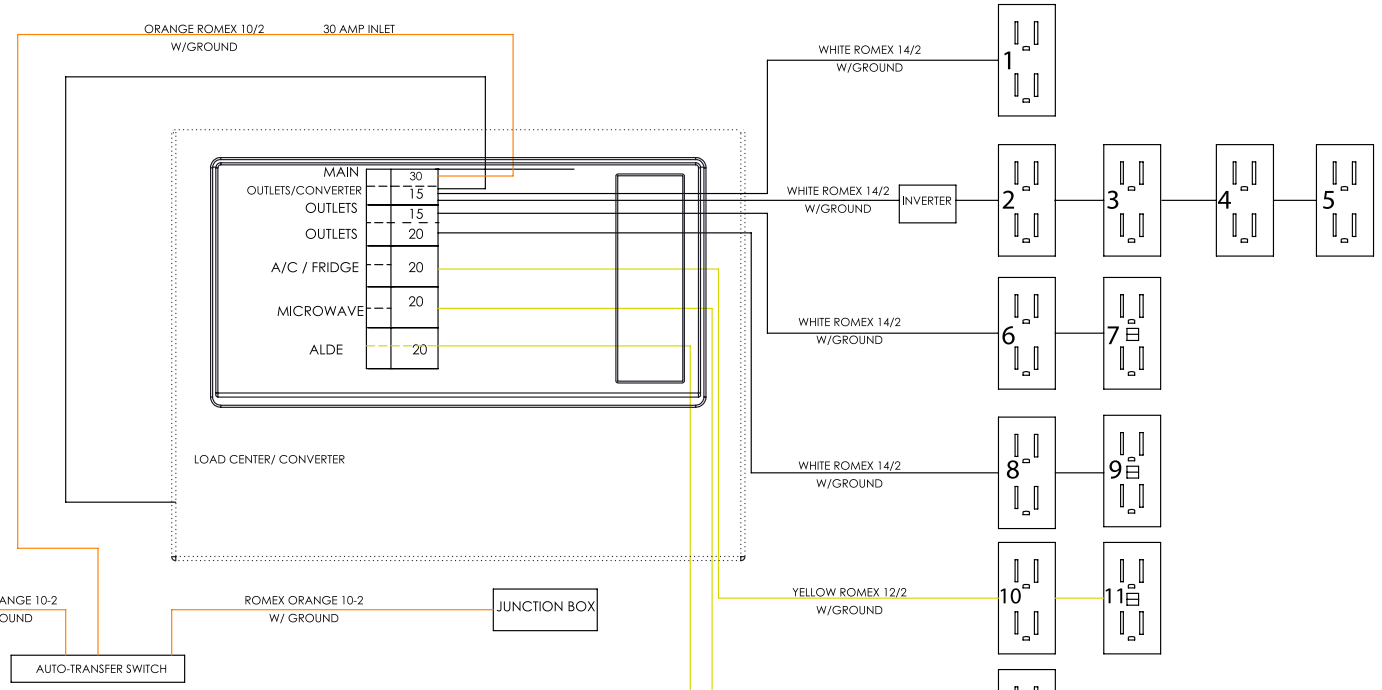
	Circuit	Fuse Size
NU CAMP MONITOR	1	3.0
FRONT COMPARTMENT LIGHT /FRIDGE	2	7.5
BATH LIGHT & PORCH LIGHT	4	7.5
READING LIGHT / REAR STORAGE	5	7.5
CEILING FANS / BATH FANS	6	7.5
STOVE / RANGE HOOD	7	7.5
ALDE/ LP DETECTOR	8	15
USB / AWNING	9	15
RADIO	10	20
SUB	11	20
FRIDGE	12	30

COMPONENT	AMPERAGE	VOLTS	Quantity
Down Light	.22	12	12
Sub	16.5	12	1
Awning	14	12	1
Range Hood	4.5	12	1
Reading Light	.17	12	4
Bath Light	.29	12	1
Storage Light	.45	12	1
NüCamp Monitor	.4	12	1
Camera	.35	12	1
Bath Fan	1.2	12	2
USB	4	12	1
Alde	3.5	12	1
Ceiling Fan	3	12	2
Stove	<1	12	1
LP/CO Detector	1	12	1
Water Pump	7.5	12	1
Fridge	2.5	12	1

IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:
PRINT :
DEPARTMENT
MATERIAL
UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISH
DATE:
DRAWN BY: ZTJ
APV'D BY:
DESCRIPTION
TYPICAL 12V INTERIOR CIRCUIT
PART NUMBER
REVISION

TYPICAL 120V SYSTEM



#	LOCATION/APPLIANCE	GFI
1	KITCHEN TV	
2	DINETTE	
3	DINETTE	
4	BEDROOM	
5	BEDROOM	
6	UNDER COUNTER TOP KITCHEN	
7	OUTSIDE ENTRY DOOR	X
8	BEDROOM TV	
9	BATH	X
10	BEHIND FRIDGE	
11	UNDER DINETTE SEAT	X
12	UNDER KITCHEN COUNTER	
13	UNDER KITCHEN DRAWERS	

IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:

PRINT :

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

DEPARTMENT

MATERIAL

FINISH

DATE:

DRAWN BY: ZTJ

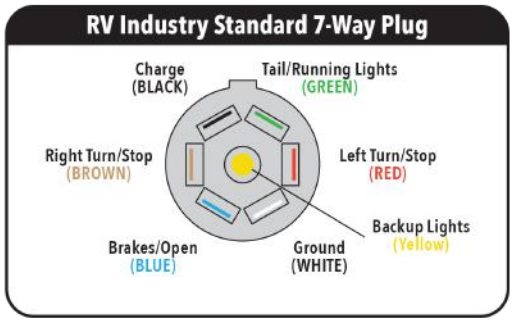
APV'D BY:

DESCRIPTION
TYPICAL 120v SYSTEM

PART NUMBER

REVISION

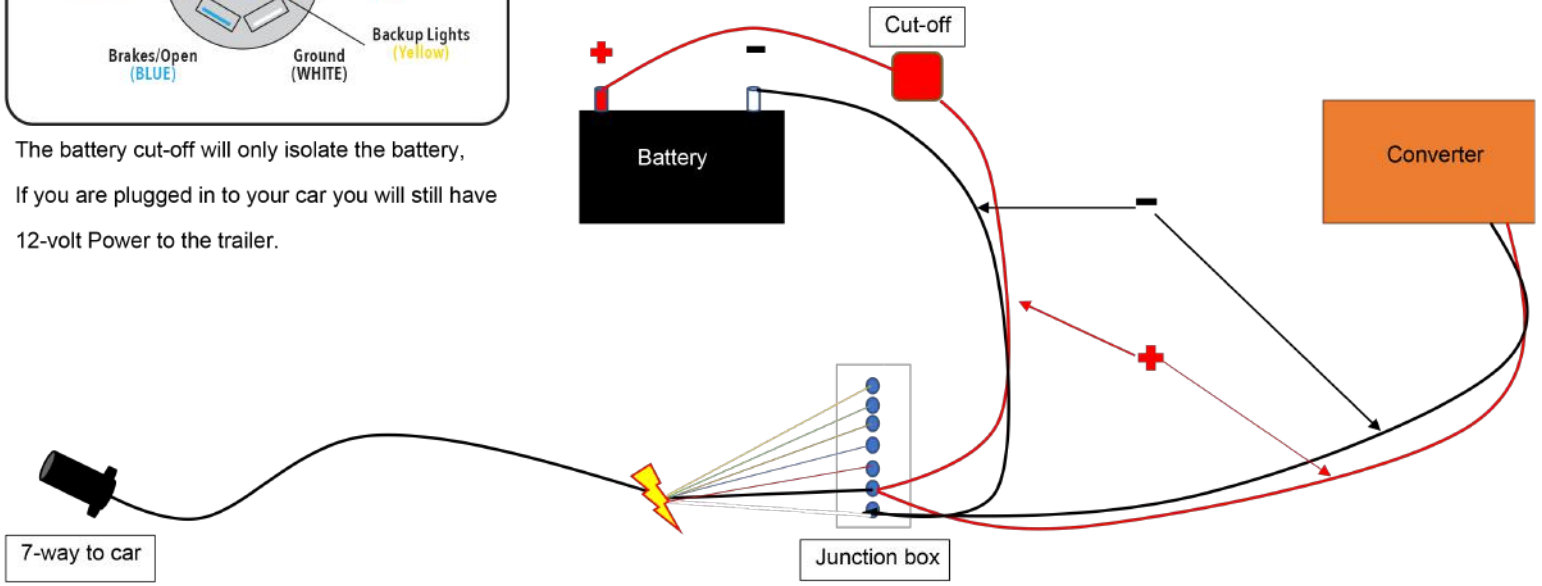
7-WAY PLUG



The battery cut-off will only isolate the battery,

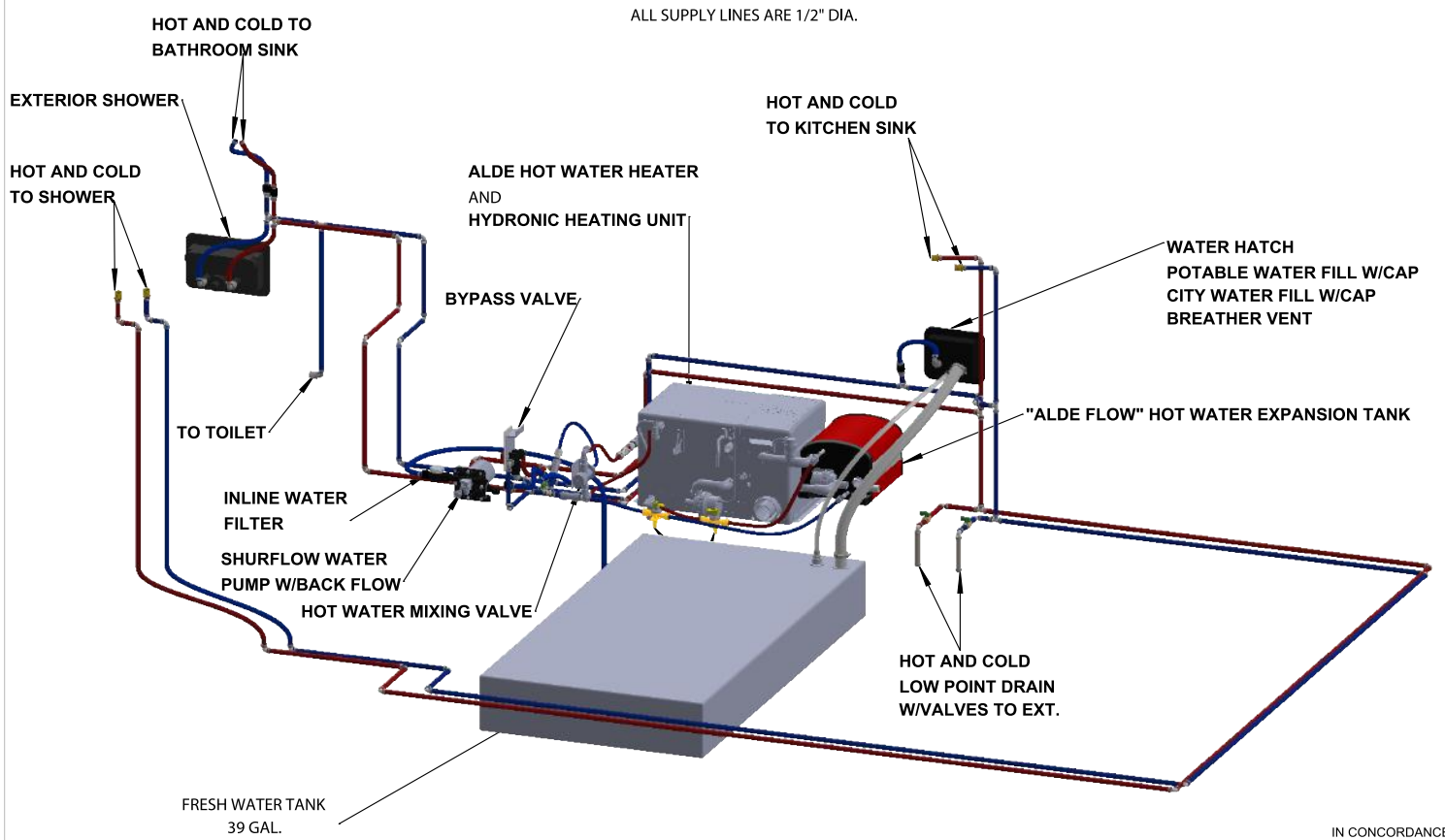
If you are plugged in to your car you will still have

12-volt Power to the trailer.



PROJECT:	PRINT :	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE:
			DRAWN BY:
		MATERIAL / FINISH	APV'D BY:
		DESCRIPTION: LP ASSEMBLY	PART NUMBER / REVISION

FRESH WATER ASSEMBLY

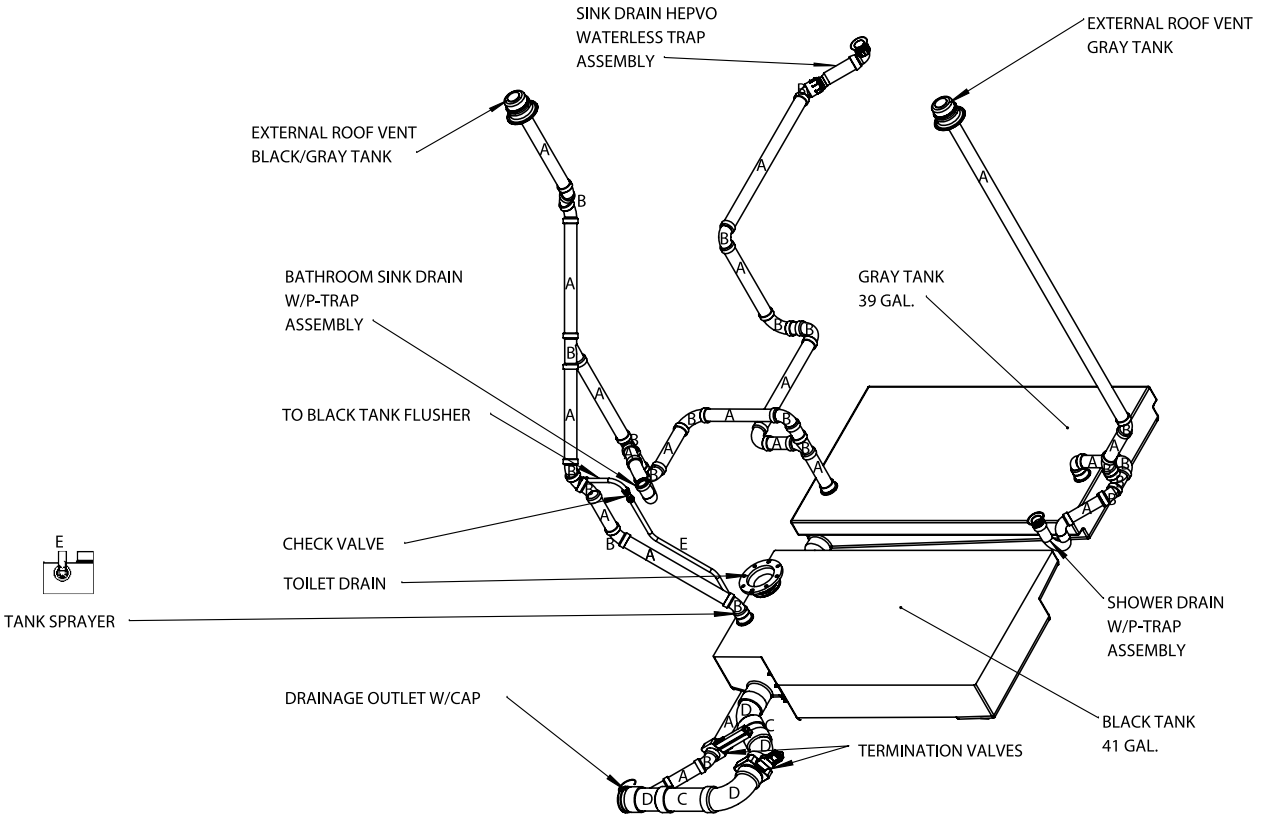


IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:	PRINT :	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE: 5/22/2019	nüCamp
		MATERIAL / FINISH	DRAWN BY: EDK	
			APV'D BY: EDK	
		DESCRIPTION: FRESH WATER ASSEMBLY	PART NUMBER: 20-45-2426	REVISION

5 4 3 2 1

WASTE WATER ASSEMBLY



A	BLACK ABS 1-1/2" PIPING PER NFPA1192
B	BLACK ABS FITTING 1-1/2" PER NFPA 1192
C	BLACK ABS 3" PIPING PER NFPA 1192
D	BLACK ABS 3" FITTING PER NFPA 1192
E	1/2" FLEXIBLE HOSE

IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:

PRINT :

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

DATE: 5/22/2019

DRAWN BY: EDK

APV'D BY: EDK

MATERIAL

FINISH

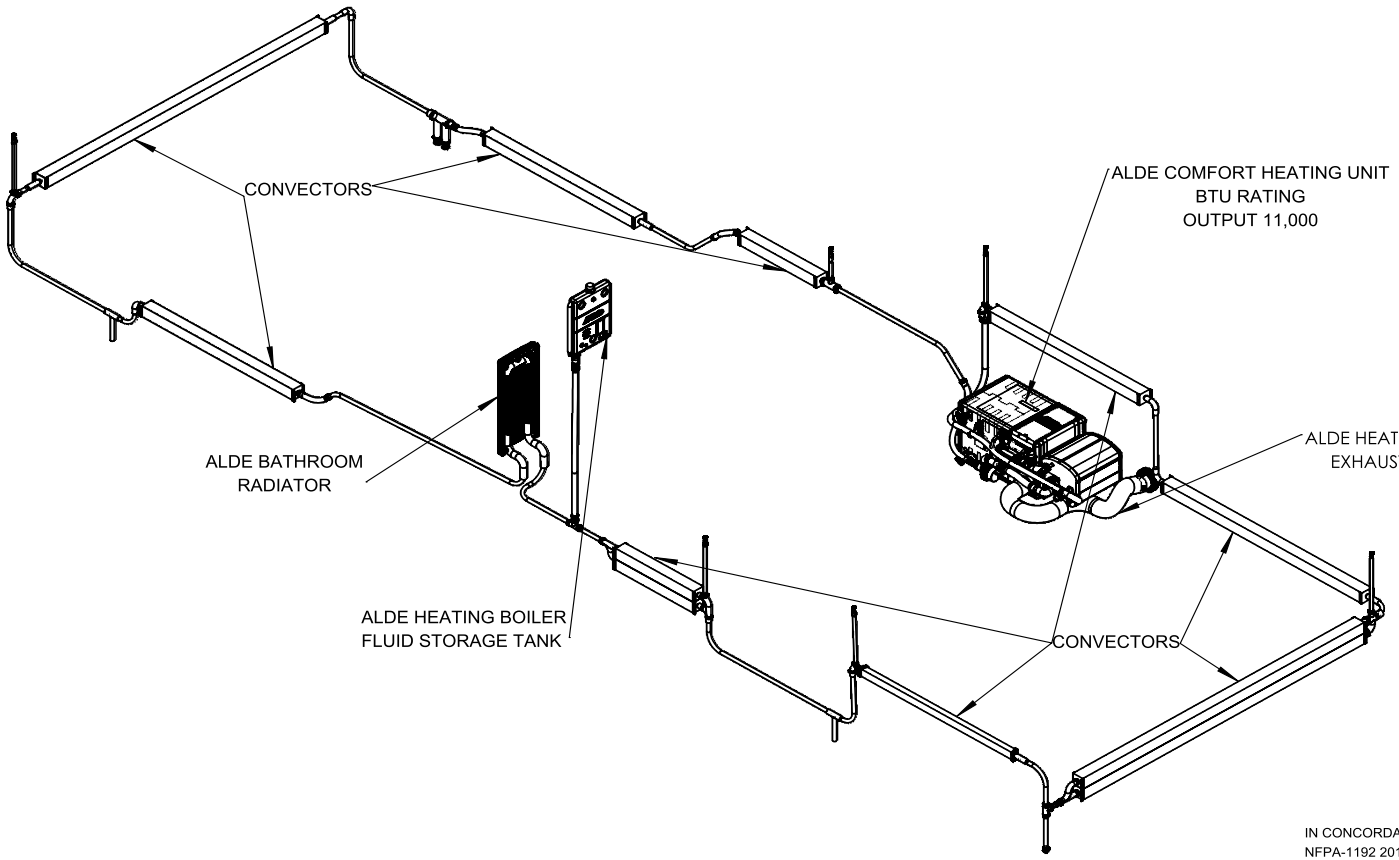
DESCRIPTION: WASTE WATER ASSEMBLY

PART NUMBER: 20-45-2448

REVISION

5 4 3 2 1

TYPICAL HEATING SYSTEM

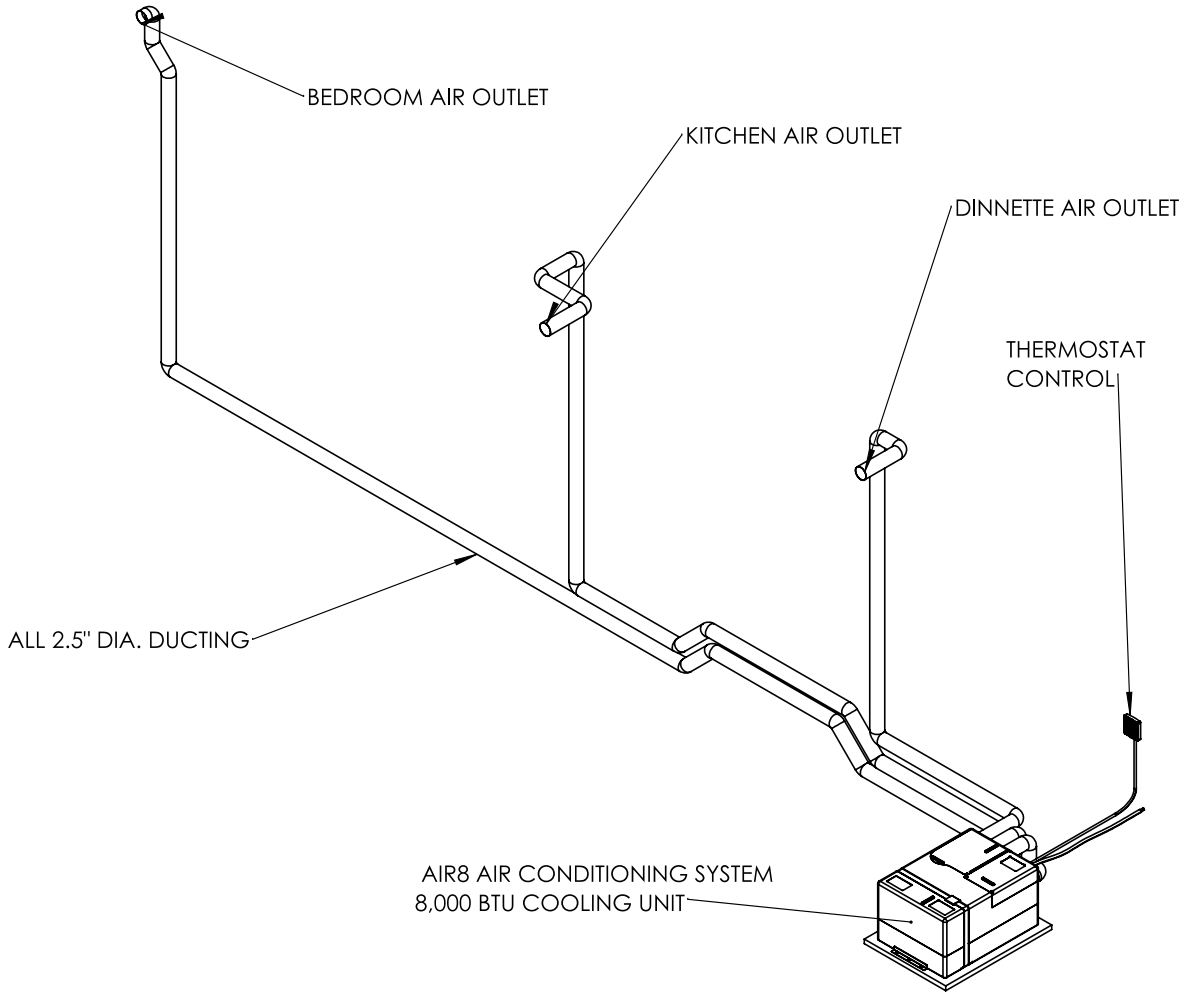


IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:	PRINT :	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE: 5/22/2019	nüCamp
			DRAWN BY: EDK	
MATERIAL		FINISH	APV'D BY: EDK	
DESCRIPTION: TYPICAL HEATING SYSTEM			PART NUMBER	REVISION

5 4 3 2 1

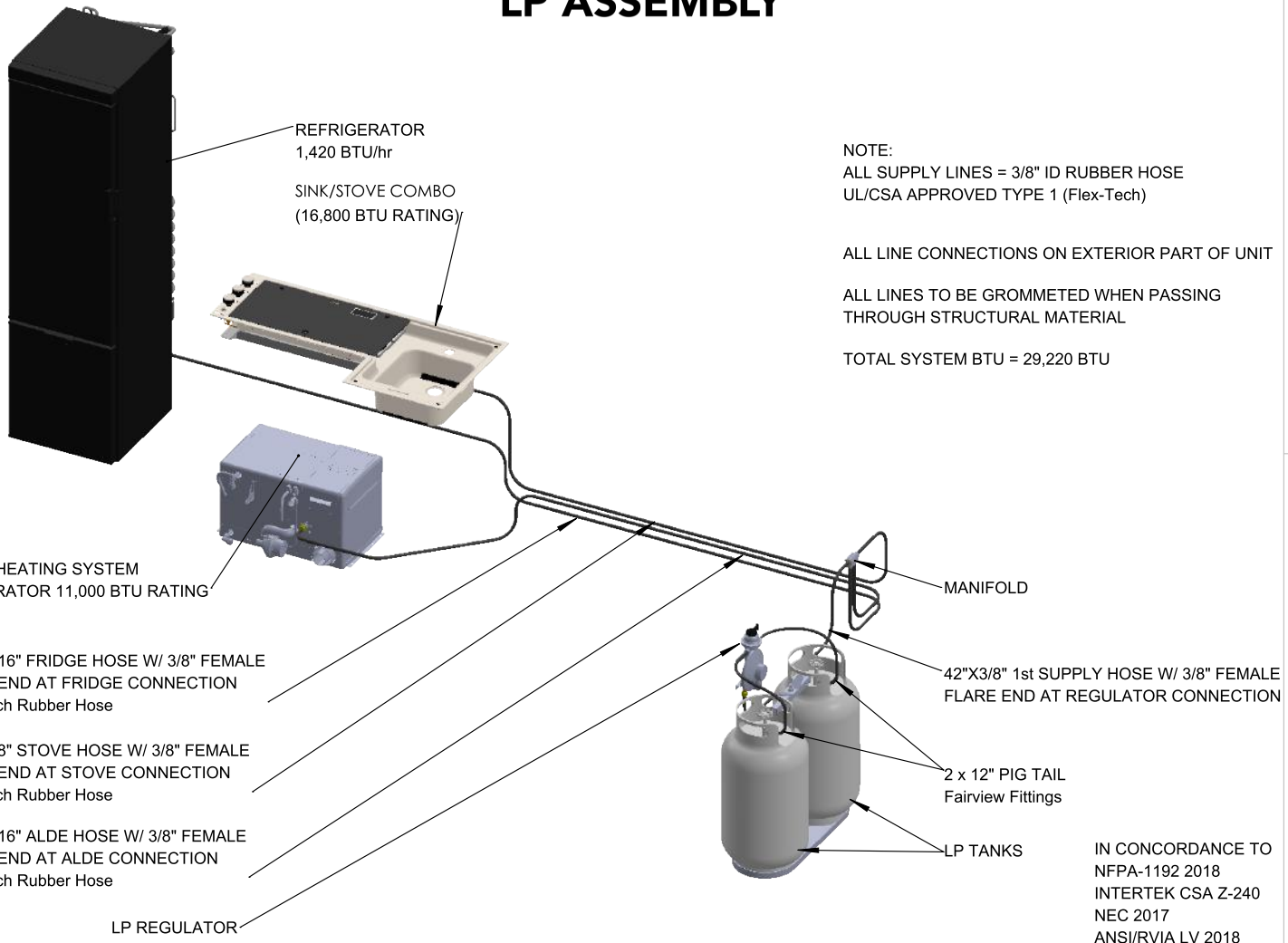
COOLING SYSTEM



IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:	PRINT :	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE:	nüCamp
		DEPARTMENT	DRAWN BY: ZTJ	
		MATERIAL	FINISH	APV'D BY:
		DESCRIPTION: COOLING SYSTEM	PART NUMBER	REVISION

LP ASSEMBLY



NOTE:
ALL SUPPLY LINES = 3/8" ID RUBBER HOSE
UL/CSA APPROVED TYPE 1 (Flex-Tech)

ALL LINE CONNECTIONS ON EXTERIOR PART OF UNIT

ALL LINES TO BE GROMMETED WHEN PASSING THROUGH STRUCTURAL MATERIAL

TOTAL SYSTEM BTU = 29,220 BTU

IN CONCORDANCE TO
NFPA-1192 2018
INTERTEK CSA Z-240
NEC 2017
ANSI/RVIA LV 2018

PROJECT:	PRINT :	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE: 5/22/2019	nüCamp
		MATERIAL / FINISH	DRAWN BY: EDK	
			APV'D BY: EDK	
		DESCRIPTION: LP ASSEMBLY	PART NUMBER: 20-45-2427	REVISION

GLOSSARY

BALL HEIGHT: Height to top of tongue when unit is leveled on level surface to the nearest whole inch. The ball hitch of your towing vehicle should be at this height.

BALL SIZE: The exact diameter size in inches of the hitch ball needed to tow the trailer

BLACK WATER TANK CAPACITY: The amount of water in gallons held by the black water tank, measured to the nearest whole gallon.

CABIN HEIGHT: Measured from the level ground to the highest point of the roof, not taking trim or roof components into account. To the nearest whole inch, rounded up

CABIN LENGTH: Measured front to back of exterior walls or rounded roof as the width of the actual cabin to the nearest whole inch, rounded up

CABIN WIDTH: Measured sidewall to sidewall outside the unit as the width of the actual cabin to the nearest whole inch, rounded up

DEPARTURE ANGLE: Also called a rear ramp angle, it is the maximum ramp angle from which the trailer/vehicle can descend to a level surface without damage. To the nearest whole degree, rounded down.

DRY COG: Center of Gravity on a truck camper. This is the point measured from the exterior front wall to the point where the camper is balanced- the center, when the unit has weights defined as dry.

DRY TONGUE WEIGHT: The actual weight pressing down on the hitch ball by a trailer containing all standard equipment without fuel, fluids, cargo, passengers, or optional equipment. The spare tire, battery(s) and empty propane bottle(s) are considered standard equipment.

DRY WEIGHT: Dry Weight is the actual weight of the camper containing all standard equipment without fuel, fluids, cargo, passengers, or optional equipment. The spare tire (on trailers), battery(s) and empty propane bottle(s) are considered standard equipment.

FLOOR PLAN: The Camper's cabinetry layout and design name.

FRESH WATER TANK CAPACITY: The amount of water in gallons held by the fresh water tank, measured to the nearest whole gallon.

GREY WATER TANK CAPACITY: The amount of water in gallons held by the grey water tank, measured to the nearest whole gallon.

GAWR: Gross Axle Weight Rating is how much weight each axle can hold safely.

GTWR/GVWR: Gross Vehicle Weight Rating (GVWR) is the maximum number of pounds that the Gross Trailer/Vehicle Weight should never exceed.

INTERIOR HEIGHT: Measured from the interior of the floor to the highest interior point of the roof in the camper, regardless of protruding components

INTERIOR LENGTH: Measured front wall to rear wall of interior inhabitable space, regardless of protruding components

INTERIOR WIDTH: Measured from wall to wall inside the unit as the width of interior living space; regardless of protruding components

MODEL: The brand name of the trailer/camper.

OVERALL HEIGHT: Measured from the level ground to the top of the trailer, accounting for all protrusions; rounded up to the nearest whole inch as the minimum height required to fit into an opening.

OVERALL LENGTH: Measured from tip of the camper equipped with standard equipment, to the rear of the camper, accounting for all protrusions; rounded up to the nearest whole inch as the minimum length required to fit into a space

OVERALL WIDTH: Measured from side to side of a camper equipped with standard equipment, as the minimum clearance needed to fit into an opening's width; rounded up to the nearest whole inch.

PAYLOAD CAPACITY: The maximum weight that persons plus cargo should never exceed. Payload is derived by subtracting Curb Weight from GTWR/GVWR.

PRIMARY BED AREA: Main bed sleeping area size in inches; to the whole inch, rounded down

RIDE HEIGHT: Measured from the base of the tire to the lowest point (typically the axle); or the lowest part of those parts designed to contact the ground; rounded down to the nearest whole inch

SECOND BED AREA: Secondary bed sleeping area size in inches; rounded down to the nearest whole inch.

STORAGE SPACE: The amount of storage space in cabinetry and storage compartments that can be secured during transport: measured to the nearest tenth of a cubic foot.

TIRE SIZE: The size and specification of the tire by industry standard.

TRIM PACKAGE: The specific standard trim and accessories option selected for the model.

USABLE FRESH WATER TANK CAPACITY : The amount of water that can be drawn out of the freshwater tank, measured to the nearest whole gallon.

WET COG: Center of Gravity when the unit has weights defined as wet. The COG is the point measured from the exterior front wall to the point where the camper is balanced.

WET TONGUE WEIGHT: The actual weight pressing down on the hitch ball by a trailer containing all standard equipment with fuel and fluids, but before adding passengers or cargo, passengers, or optional equipment. The spare tire, battery(s), full propane bottle(s) and a full fresh water tank are considered standard wet weight equipment.

WET WEIGHT: The actual weight of a camper containing all standard equipment with fuel and fluids, but before adding passengers or cargo, passengers, or optional equipment. The spare tire installed, battery(s), full propane bottle(s) and a full fresh water tank are considered standard wet weight equipment. (Note: nuCamp defines wet weight as different from Curb weight. nuCamp's wet weight takes a full fresh water tank into consideration, while federal regulation defines water in tanks as cargo and curb weight is "the weight of a trailer/motor vehicle with standard equipment, including the maximum capacity of fuel, oil and coolant.")

1-844-823-9112 • nucamprv.com •