



Trailer Operation Manual

This manual provides you with basic operating information for your trailer. If you have additional questions that cannot be answered after reading through this manual, please don't hesitate to call or email us. (630-906-8002, info@cohsi.com)

Properly maintaining and operating your trailer will ensure peak performance of the unit for years to come.

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Fresh Water and Pump Operation

(Typical Utility Room layout)

The First valve in the sequence is located inside the utility room door and is to be opened when filling the water tank or running on fresh water (hose hookup). Valve must be closed when running the pump.

2nd valve is only opened when filling the tank. It is left closed all other times.



Third valve is typically located behind pump and must be open to use the pump. Valve must be closed only when filling tank or operating on a fresh water source (hose hookup)

Fresh Water and Pump Operation

(Typical Utility Room layout)

The fresh water hookup is located on the exterior of the trailer, and is used to fill the tank or when operating on a direct water source. This fitting accommodates a standard $\frac{3}{4}$ " garden hose. Flush hose before connecting to remove contaminants.



If equipped with a fresh water tank, emptying the tank can be accomplished by opening this valve.

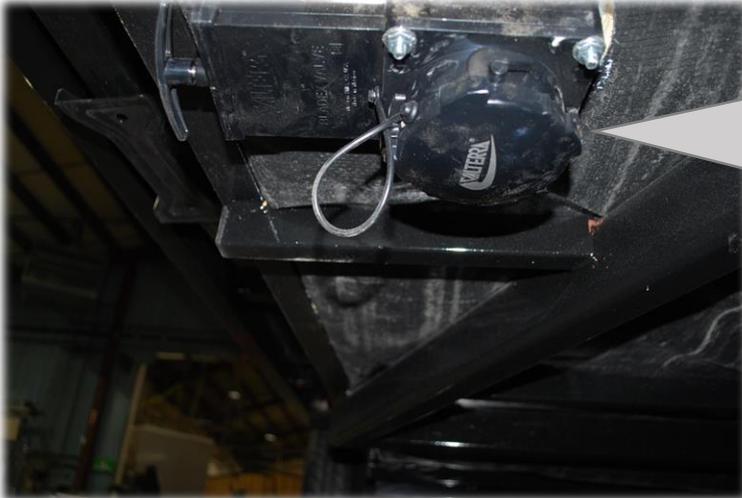
Your trailer may be equipped with a pressure tank. Each tank is factory set to the recommended pressure for optimum performance. A sticker on the tank identifies what that setting is.



The fresh water tank (if equipped) is located inside the utility room. The tank is filled with a hose hookup on the exterior of the trailer. There is an overflow drain installed on the top of the tank. Marker lines on the tank indicate the volume of water in gallons held inside.

Waste Tank

If equipped, the waste tank(s) is located under the floor in the belly of the trailer. Depending on size, your trailer may have one or more tanks interconnected to maximize storage capacity. Each tank has its own dump valve marked by a sticker on the side of the trailer. If you are unsure of the size of your tank, please contact the manufacturer. Add



The waste water dump valve is typically located underneath trailer close to the edge of the frame. (in some cases, it may be on the side) There is one valve per waste tank. Remove the cap and open the valve to release waste from the tank. A standard valve that all pumping companies are familiar with is used.

Your trailer may have been ordered with a waste tank heating element. If equipped this system can be turned on by plugging the heat tape into the outlet located in the utility room. This system will warm the tank to prevent the liquid inside from freezing.



This is the waste tank sight glass. Located on the side or front of the trailer, underneath a cover. When waste water reaches the top of the sight, the waste tank is 80% full. Monitor your tank level closely to prevent over-filling. **DO NOT TRAVEL WITH WASTE TANKS FULL.**

Electrical

(typical electrical room set-up)

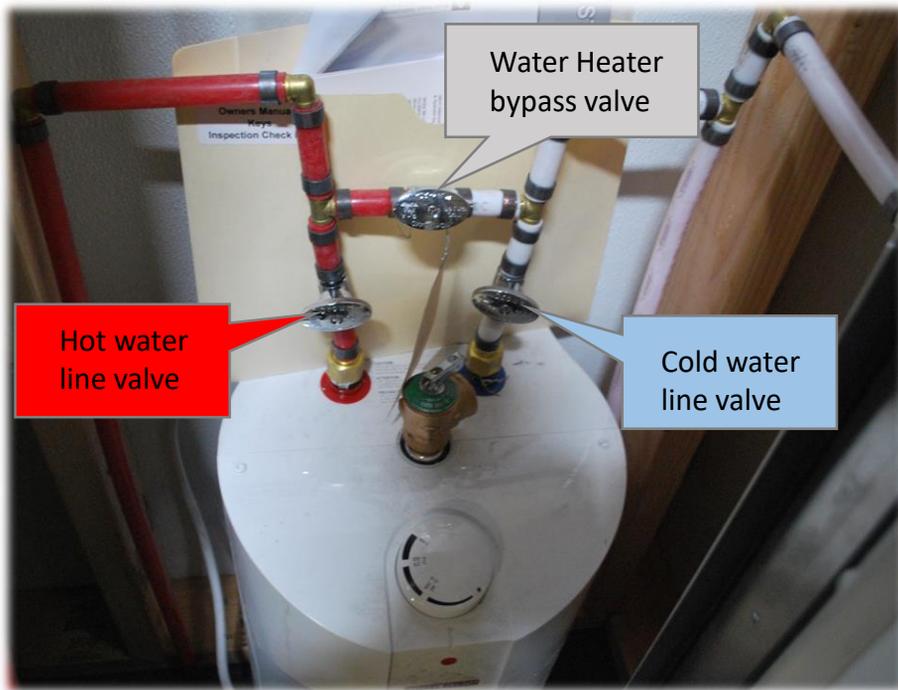


Each trailers electrical system has been designed unique for that trailer. There are however similar aspects of each: Each set up has or may have

- A power supply hookup generally located on the exterior near the utility door
 - Each hook up matches what was ordered, or needed for that particular trailer
 - If multiple 110V plugs, each must be connected to a separate dedicated plug
- A box of outlets used for the various plugs located in the utility room
- Fuses for a 12V LED system (if equipped)
- Switches for the exterior and/or interior lights
- A fuse box labeled for what each fuse controls

If you have questions on your electrical set up, please contact the manufacturer.

Water Heater (if equipped)



If your trailer was ordered with a water heater, the following applies:

The water heater needs to be plugged into an electrical outlet for operation. Once plugged in, the desired temperature is set via the dial on the unit. Do not turn the water heater on unless the unit is filled with water. Operating the water heater without water will damage the unit and void the warranty.

The water heater may have a valve bypass system installed. Valves on either side of the unit control water flow into, and out of the heater. Both must both be open to use the water heater, or closed when not in use. The upper middle valve is the water heater bypass. Open this valve with the other two closed to bypass the water heater. Keep this valve closed to use the water heater.

When winterizing the trailer, open the top bypass valve and close the two side valves. This will allow antifreeze to flow past heater effectively shutting off the water supply to the heater. Once bypassed, unscrew the lines from the top of the heater and remove the heater. After removed from the trailer, empty the water out of the heater and store for the winter in a heated environment.

If equipped with an on demand water heater, drain the hot and cold sides of the unit by either unscrewing the fittings below the unit or unscrewing the drain and filter on the bottom of the unit

Additional Trailer Components



The **A/C unit** of the trailer will be mounted on the roof of the trailer with the controls on the interior portion of the unit. Dials on the unit control the fan speed and temperature. These may be set to your desired setting, then power to unit turned on/off via the breaker on the fuse box of the trailer. Additional operating directions can be found in the AC owners manual provided with your unit.

If equipment, a **battery** is installed to run various 12V components of the trailer. The charge of the battery is maintained by either a transformer, or a separate charger. If the battery is not holding a charge, the connections to the charging device should first be checked.



For trailers with powered vents installed, operate the vents by turning the dial to the desired speed setting (manufacturer recommends leaving it set to #1). The roof vent must be open for the fan motor to run.

For trailers with propane accessories installed, frequently check propane levels in the tanks and fill when necessary. For operating propane fueled accessories, refer to the provided manufacturers manual.

Winterizing

When a trailer is to be subjected to freezing temperatures, it must be winterized or properly heated to prevent damage. Below is the recommended procedure for winterizing the trailer:

1. Drain remaining water from waste and fresh water tanks
2. Disconnect any fresh water hoses currently hooked up to the trailer. Open the valve inside the utility room just behind the fresh water inlet, close tank fill valve, and open the pump valve.
 - i. Run pump until water stops coming out of the unit through the hose hookup.
 - ii. Once water stops, close the valve next to the pump, unhook the water lines going into the pump, and run the pump dry
3. Hook up an antifreeze pump to water hookup on trailer and pump antifreeze into water lines.
4. Go through each room and run each fixture until antifreeze is seen.
5. Pour extra antifreeze into p-traps and shower drains
6. Wipe excess antifreeze from fixtures to avoid staining and residue
7. Vacuum out antifreeze from residential toilets or saniflow pumps if applicable.
 - i. To winterize residential/saniflow toilets, open valve and allow holding tank to fill with antifreeze
 - ii. Once full shut valve then flush toilet
 - a) For saniflow toilets make sure breaker for saniflow is engaged and allow saniflow to run before shutting off
 - iii. Vacuum excess antifreeze left in toilet bowl and holding tank
 - a) For saniflow, open drain by twisting drain cap and pulling
 - b) Use screw driver or other long narrow device, push into drain to let antifreeze flow out of saniflow.
 - c) Replace drain cap and twist close
8. After all fixtures have been winterized, open tank fill valve and run antifreeze into the fresh tank until it passes the tank drain, and flows out
 - i. Open fresh tank dump valve and leave open
9. If trailer is equipped with a water heater, refer to the water heater page provided for details on winterizing

Transporting Your Trailer

To prevent damage to your trailer, and to ensure your safety and that of others on the road, we recommend the following steps be taken prior to transporting your trailer:

1. Empty the water and waste tanks. Do not tow with a full waste tank.
2. Close all toilet lids and vents. Secure all partition and cabinet doors by applying a low-tact “painters” tape to ensure locks stay engaged, doors stay shut, and drawers don’t slide open.
3. Disconnect all electrical and water hook-ups
4. Secure any loose items on the floor in a fashion that will prevent them from sliding and damaging the trailer interior.
5. Lock the entry doors and close. Place handrails in transport position and tighten the nut. If necessary use protection on the handrails to avoid damaging the door frame.
6. Secure the steps by flipping bottom stairs up onto themselves. If slide out steps, push the stairs in and **engage pin latches**
7. If an ADA ramp is installed, raise the ramp and secure using the latches mounted to the trailer.
8. Check and tighten tire lugs to proper torque. Frequently check the pressure in tires is at the manufacturers recommended level. Check for wear and damage to tires, replace as necessary.
9. Raise leveling jacks around trailer.
10. Hook the trailer to the transport vehicle, a 2 - 5/16" ball with properly sized hitch assembly is required; make sure the top of the ball is at the proper height to tow the trailer level. Load leveling hitches are recommended for safely dispersing the load to the front tires of the tow vehicle on heavier trailers. See tow vehicle manual and www.safercar.gov for guides.
11. Attach safety chains, plug in 7 wire trailer cable to receptacle on the vehicle. Check tow vehicle fuses are intact and check to ensure all trailer lighting is functioning properly. Attach emergency break-away cable to the vehicle, leave enough slack to avoid accidental break engagement. Test trailer brakes using tow vehicles brake controller before going on the road.



Trailer Maintenance

Set-up Tips

Make sure trailer is on level ground, an unlevel trailer can cause falls and reduced capacity of the waste tank(s). Lower all leveling jacks (half turn after initial contact with the ground), plywood or another other material may be needed underneath the feet of the jacks if ground is soft. Power up trailer with the required number of power cords heavy enough for the amps it will carry and the distance it runs. See an electrician to be sure the proper cords are used. Usually a 10 gage cord is heavy enough for 20amps for 100 feet. **This is critical that the power supply is dedicated for each cord from the fuse panel as any other load on that breaker will cause the breaker to trip. Long runs may require heavier cables and a larger breaker, consult an electrician for proper sizing. Improper cords will cause the cord to get hot, may cause a fire and may cause the circuit to trip. Flush garden hose to remove contaminates, connect garden hose to trailer. For shower trailers, turn on the gas supply before turning on the power, check for gas leaks each time. Over time or after changing a tank the gas lines may have air in them at which point you will need to flush the line with gas by opening the purge port at the bottom of the heater if equipped or loosen the nut for 20 seconds below the heater.

Trailer Frame

Road use and natural elements will wear away at the protective paint on your frame. Keeping the frame painted and rust free will not only keep your trailer looking nice, but will prevent rust from damaging the steel. A high gloss black Rust-o-leum paint is the best product to use for touch ups.

Exterior Aluminum skin

Keep the exterior clean by frequent washings. Exterior aluminum cleaning products can be purchased at an RV store. Seasonal waxing will keep a high gloss finish on the skin, and will prevent dirt from sticking.

Roof

Frequently inspect the roof. If a hole is found, it can be sealed using an exterior grade silicon caulk

Doors

Keep door hinges lubricated. Frequently inspect door locks and lock catches for proper operation.

Interior Cleaning

Keeping a clean interior not only extends the life of your trailer, but shows users you care about their comfort while using your trailer. Never use pressure a washer inside a trailer. Clean inside of trailer like you would clean your house. If you have a wash down interior, aka rubber floor and/or caulked aluminum trim with linoleum you can use a commercial heavy mop and bucket.

Fixture Cleaning

NEVER DUMP WATER INTO THE URINALS. This will flush the chemical out of the canister, which will intern cause a urine smell to arise in the Men's room. Simply wipe out the urinals with a mild cleaning detergent and follow cleaning instructions included with Falcon Water Free Urinals. Clean toilet flush ball seals. Clean A/C intake screens. Clean water inlet, garden hose intake fitting screen. Clean faucet aerators. Clean faucet screen located in the supply hose where it attaches to the water valve. Put the hose back on hand tight plus just a quarter turn to avoid damaging the filter and seal. Replace Urinal Cartridge and oil after about every 6 months to a year depending on use.

Plumbing and electrical

Frequently inspect water and drain lines in the utility room. Look for any leaks or corrosion on the fittings. Check under sinks and toilets inside the trailer. Make sure supply lines and sink drains are tight.

Trailer Maintenance

Aluminum Trim

Your trailer has a lot of aluminum components on the exterior. Doors, trim, and rims should all be frequently polished to not only keep the trailer looking sharp, but also to prevent corrosion.

Waste Tank

Frequently flushing out the waste tank is a good practice to keep your tank smelling fresh. Filling the tank about ¼ full and driving around the block will break up any solids stuck in the tank. RV tank chemicals may be added in accordance with the manufacturers application directions.

Pumping the trailer

The easiest way to pump the trailer is by inserting a standard 2" PVC portable toilet wand down the toilet flushing hole. You will have to pump thru a toilet from each tank to evacuate all tanks, usually the front most and rear most toilets will do. For a trailer larger than 28' you may have 3 tanks so a center toilet will need to be pumped as well. Start from the top of the tank and work your way to the bottom to collect the solids first to insure everything flows towards you. Multiple tanks are connected together towards the top of the tank. If using the onboard sewage pump, hook the 1.5" line coming out of the trailer in front of the passenger side tire to a sewer system. Run the sewer pumps as necessary to empty the waste tanks, there is a switch for each pump which services on tank each. If trailer is equipped with a fresh water tank, start draining the tank ASAP. Tanks shouldn't be hauled with fluid in them

Trailer Brakes

Your trailer brakes should be inspected and / or serviced every few thousand miles. The heavier the trailer and the more you transport it, the quicker the brakes will wear out. The trailer braking system is a very important element of your safety while on the road.

Tires and wheels

Overtime, the lug nuts on your trailer can become loose. Every few hundred miles and before any long road trips, be sure to tighten the lug nuts to 90 foot pounds using a torque wrench. The same frequency is recommended for checking tire pressure. Do Not adjust tire pressure for the load of the trailer. Grease axels joints and bearings every 5,000 miles.

Installing Interior Accessories

Interior accessories such as toilet paper holders, soap dispensers and pictures may be installed in your unit. Remember, once you put a hole in the wall, there is no going back. Follow the "measure twice, drill once" rule. All trailer walls are made of ½" plywood. For mounting accessories, use no screw LARGER THAN ¾". Our recommendation is to use the screws provided with your trailer – ¾" drywall screws.

Winter use of trailer

If trailer is to be used in the winter months (with freezing conditions), winter package should have been an option with your trailer. Make sure heat tape is plugged into an outlet to avoid freezing of supply lines and waste tank. Make sure the heat tape and the power is on whenever conditions are or may be below freezing. A skirt or hay is useful in the winter to keep the wind from freezing the bottom of the trailer. Always keep the thermostat fairly high to keep the inside of the trailer warm and thus keep internal plumbing and fixtures from freezing.

Instruct the person in charge of the trailer to make sure power is always supplied to the trailer during freezing conditions. If trailer is to be subjected to freezing temperatures while not in operation winterize the trailer as detailed in the Winterizing page of the manual.

Tire Safety Information

This portion of the User's Manual contains tire safety information as required by 49 CFR 575.6.

Section 2.1 contains "Steps for Determining Correct Load Limit - Trailer".

Section 2.2 contains "Steps for Determining Correct Load Limit - Tow Vehicle".

Section 2.3 contains a Glossary of Tire Terminology, including "cold inflation pressure", "maximum inflation pressure", "recommended inflation pressure", and other non-technical terms.

Section 2.4 contains information from the NHTSA brochure entitled "Tire Safety - Everything Rides On It". This brochure, as well as the preceding subsections, describes the following items:

- Tire labeling, including a description and explanation of each marking on the tires, and information about the DOT Tire Identification Number (TIN).
- Recommended tire inflation pressure, including a description and explanation of:
 - A. Cold inflation pressure.
 - B. Vehicle Placard and location on the vehicle.
 - C. Adverse safety consequences of under inflation (including tire failure).
 - D. Measuring and adjusting air pressure for proper inflation.
- Tire Care, including maintenance and safety practices.
- Vehicle load limits, including a description and explanation of the following items:
 - A. Locating and understanding the load limit information, total load capacity, and cargo capacity.
 - B. Calculating total and cargo capacities with varying seating configurations including quantitative examples showing / illustrating how the vehicles cargo and luggage capacity decreases as combined number and size of occupants' increases. This item is also discussed in Section 3.
 - C. Determining compatibility of tire and vehicle load capabilities.
 - D. Adverse safety consequences of overloading on handling and stopping on tires.

1.1. STEPS FOR DETERMINING CORRECT LOAD LIMIT - TRAILER

Determining the load limits of a trailer includes more than understanding the load limits of the tires alone. On all trailers there is a Federal certification/VIN label that is located on the forward half of the left (road) side of the unit. This certification/VIN label will indicate the trailer's Gross Vehicle Weight Rating (GVWR). This is the most weight the fully loaded trailer can weigh. It will also provide the Gross Axle Weight Rating (GAWR). This is the most a particular axle can weigh. If there are multiple axles, the GAWR of each axle will be provided.

If your trailer has a GVWR of 10,000 pounds or less, there is a vehicle placard located in the same location as the certification label described above. This placard provides tire and loading information. In addition, this placard will show a statement regarding maximum cargo capacity. Cargo can be added to the trailer, up to the maximum weight specified on the placard. The combined weight of the cargo is provided as a single number. In any case, remember: the total weight of a fully loaded trailer can not exceed the stated GVWR.

For trailers with living quarters installed, the weight of water and propane also need to be considered. The weight of fully filled propane containers is considered part of the weight of the trailer before it is loaded with cargo, and is not considered part of the disposable cargo load. Water however, is a disposable cargo weight and is treated as such. If there is a fresh water storage tank of 100 gallons, this tank when filled would weigh about 800 pounds. If more cargo is being transported, water can be off-loaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR so as not to overload the vehicle. Understanding this flexibility will allow you, the owner, to make choices that fit your travel needs.

When loading your cargo, be sure it is distributed evenly to prevent overloading front to back and side to side. Heavy items should be placed low and as close to the axle positions as reasonable. Too many items on one side may overload a tire. The best way to know the actual weight of the vehicle is to weigh it at a public scale. Talk to your dealer to discuss the weighing methods needed to capture the various weights related to the trailer. This would include the weight empty or unloaded, weights per axle, wheel, hitch or king-pin, and total weight.

Excessive loads and/or under inflation cause tire overloading and, as a result, abnormal tire flexing occurs. This situation can generate an excessive amount of heat within the tire. Excessive heat may lead to tire failure. It is the air pressure that enables a tire to support the load, so proper inflation is critical. The proper air pressure may be found on the certification/VIN label and/or on the Tire Placard. This value should never exceed the maximum cold inflation pressure stamped on the tire.

1.1.1. TRAILERS 10,000 POUNDS GVWR OR LESS



TIRE AND LOADING INFORMATION

The weight of cargo should never exceed 680 kg or 1,500 lbs

Tire	Size	Cold Pressure	See Owner's Manual for additional Information
Front	ST225/75R15(D)	65psi, 448kpa	
Rear			
Spare	None		

Tire and Loading Information Placard - Figure 1-1

1. Locate the statement, "The weight of cargo should never exceed XXX kg or XXX lbs.," on your vehicle's placard. See figure 1-1.
2. This figure equals the available amount of cargo and luggage load capacity.
3. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.

The trailer's placard refers to the Tire Information Placard attached adjacent to or near the trailer's VIN (Certification) label at the left front of the trailer.

1.1.2. TRAILERS OVER 10,000 POUNDS GVWR (NOTE: THESE TRAILERS ARE NOT REQUIRED TO HAVE A TIRE INFORMATION PLACARD ON THE VEHICLE)

1. Determine the empty weight of your trailer by weighing the trailer using a public scale or other means. This step does not have to be repeated.
2. Locate the GVWR (Gross Vehicle Weight Rating) of the trailer on your trailer's VIN (Certification) label.
3. Subtract the empty weight of your trailer from the GVWR stated on the VIN label. That weight is the maximum available cargo capacity of the trailer and may not be safely exceeded.

1.2. STEPS FOR DETERMINING CORRECT LOAD LIMIT - TOW VEHICLE

1. Locate the statement, "The combined weight of occupants and cargo should never exceed XXX lbs.," on your vehicle's placard.
2. Determine the combined weight of the driver and passengers who will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.
4. The resulting figure equals the available amount of cargo and luggage capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.).
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage capacity calculated in Step # 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult the tow vehicle's manual to determine how this weight transfer reduces the available cargo /people capacity of your vehicle.

1.3. GLOSSARY OF TIRE TERMINOLOGY:

Accessory weight The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

Bead The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim.

Bead separation This is the breakdown of the bond between components in the bead.

Bias ply tire A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread.

Carcass The tire structure, except tread and sidewall rubber which, when inflated, bears the load.

Chunking The breaking away of pieces of the tread or sidewall.

Cold inflation pressure The pressure in the tire before you drive.

Cord The strands forming the plies in the tire.

Cord separation The parting of cords from adjacent rubber compounds.

Cracking Any parting within the tread, sidewall, or inner liner of the tire extending to cord material.

CT A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire.

Curb weight The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.

Extra load tire A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

Groove The space between two adjacent tread ribs.

Gross Axle Weight Rating The maximum weight that any axle can support, as published on the Certification / VIN label on the front left side of the trailer. Actual weight determined by weighing each axle on a public scale, with the trailer attached to the towing vehicle.

Gross Vehicle Weight Rating The maximum weight of the fully loaded trailer, as published on the Certification / VIN label. Actual weight determined by weighing trailer on a public scale, without being attached to the towing vehicle.

Hitch Weight The downward force exerted on the hitch ball by the trailer coupler.

Innerliner The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire.

Innerliner separation The parting of the innerliner from cord material in the carcass.

Intended outboard sidewall The sidewall that contains a white-wall, bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire or the outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle.

Light truck (LT) tire A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Load rating The maximum load that a tire is rated to carry for a given inflation pressure.

Maximum load rating The load rating for a tire at the maximum permissible inflation pressure for that tire.

Maximum permissible inflation pressure The maximum cold inflation pressure to which a tire may be inflated.

Maximum loaded vehicle weight The sum of curb weight, accessory weight, vehicle capacity weight, and production options weight.

Measuring rim The rim on which a tire is fitted for physical dimension requirements.

Pin Weight The downward force applied to the 5th wheel or gooseneck ball, by the trailer kingpin or gooseneck coupler.

Non-pneumatic rim A mechanical device which, when a non-pneumatic tire assembly incorporates a wheel, supports the tire, and attaches, either integrally or separately, to the wheel center member and upon which the tire is attached.

Non-pneumatic spare tire assembly A non-pneumatic tire assembly intended for temporary use in place of one of the pneumatic tires and rims that are fitted to a passenger car in compliance with the requirements of this standard.

Non-pneumatic tire A mechanical device which transmits, either directly or through a wheel or wheel center member, the vertical load and tractive forces from the roadway to the vehicle, generates the tractive forces that provide the directional control of the vehicle and does not rely on the containment of any gas or fluid for providing those functions.

Non-pneumatic tire assembly A non-pneumatic tire, alone or in combination with a wheel or wheel center member, which can be mounted on a vehicle.

Normal occupant weight This means 68 kilograms (150 lbs.) times the number of occupants specified in the second column of Table I of 49 CFR 571.110.

Occupant distribution The distribution of occupants in a vehicle as specified in the third column of Table I of 49 CFR 571.110.

Open splice Any parting at any junction of tread, sidewall, or innerliner that extends to cord material.

Outer diameter The overall diameter of an inflated non-tire.

Overall width The linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs.

Ply A layer of rubber-coated parallel cords.

Ply separation A parting of rubber compound between adjacent plies.

Pneumatic tire A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load.

Production options weight The combined weight of those installed regular production options weighing over 2.3 kilograms (5 lbs.) in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levers, roof rack, heavy duty battery, and special trim.

Radial ply tire A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread.

Recommended inflation pressure This is the inflation pressure provided by the vehicle manufacturer on the Tire Information label and on the Certification / VIN tag.

Reinforced tire A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

Rim A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

Rim diameter This means the nominal diameter of the bead seat.

Rim size designation This means the rim diameter and width.

Rim type designation This means the industry of manufacturer's designation for a rim by style or code.

Rim width This means the nominal distance between rim flanges.

Section width The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands.

Sidewall That portion of a tire between the tread and bead.

Sidewall separation The parting of the rubber compound from the cord material in the sidewall.

Special Trailer (ST) tire The "ST" is an indication the tire is for trailer use only.

Test rim The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire.

Tread That portion of a tire that comes into contact with the road.

Tread rib A tread section running circumferentially around a tire.

Tread separation Pulling away of the tread from the tire carcass.

Treadwear indicators (TWI) The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread.

Vehicle capacity weight The rated cargo and luggage load plus 68 kilograms (150 lbs.) times the vehicle's designated seating capacity.

Vehicle maximum load on the tire The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.

Vehicle normal load on the tire The load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table I of CFR 49 571.110) and dividing by 2.

Weather side The surface area of the rim not covered by the inflated tire.

Wheel center member In the case of a non-pneumatic tire assembly incorporating a wheel, a mechanical device which attaches, either integrally or separately, to the non-pneumatic rim and provides the connection between the non-pneumatic rim and the vehicle, or, in the case of a non-pneumatic tire assembly not incorporating a wheel, a mechanical device which attaches, either integrally or separately, to the non-pneumatic tire and provides the connection between tire and the vehicle.

Wheel-holding fixture The fixture used to hold the wheel and tire assembly securely during testing.

1.4. TIRE SAFETY - EVERYTHING RIDES ON IT

The National Traffic Safety Administration (NHTSA) has published a brochure (DOT HS 809 361) that discusses all aspects of Tire Safety, as required by CFR 575.6. This brochure is reproduced in part below. It can be obtained and downloaded from NHTSA, free of charge, from the following web site:

http://www.nhtsa.dot.gov/cars/rules/TireSafety/ridesonit/tires_index.html

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards, and inspecting tires for cuts, slashes, and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires. These actions, along with other care and maintenance activities, can also:

- Improve vehicle handling
- Help protect you and others from avoidable breakdowns and accidents
- Improve fuel economy
- Increase the life of your tires.

This booklet presents a comprehensive overview of tire safety, including information on the following topics:

- Basic tire maintenance
- Uniform Tire Quality Grading System
- Fundamental characteristics of tires
- Tire safety tips.

Use this information to make tire safety a regular part of your vehicle maintenance routine. Recognize that the time you spend is minimal compared with the inconvenience and safety consequences of a flat tire or other tire failure.

1.5. SAFETY FIRST—BASIC TIRE MAINTENANCE

Properly maintained tires improve the steering, stopping, traction, and load-carrying capability of your vehicle. Underinflated tires and overloaded vehicles are a major cause of tire failure. Therefore, as mentioned above, to avoid flat tires and other types of tire failure, you should maintain proper tire pressure, observe tire and vehicle load limits, avoid road hazards, and regularly inspect your tires.

1.5.1. FINDING YOUR VEHICLE'S RECOMMENDED TIRE PRESSURE AND LOAD LIMITS

Tire information placards and vehicle certification labels contain information on tires and load limits. These labels indicate the vehicle manufacturer's information including:

- Recommended tire size
- Recommended tire inflation pressure
- Vehicle capacity weight (VCW—the maximum occupant and cargo weight a vehicle is designed to carry)
- Front and rear gross axle weight ratings (GAWR—the maximum weight the axle systems are designed to carry).
- Both placards and certification labels are permanently attached to the trailer near the left front.

1.5.2. UNDERSTANDING TIRE PRESSURE AND LOAD LIMITS

Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure—measured in pounds per square inch (psi)—a tire requires to be properly inflated. (You will also find this number on the vehicle information placard expressed in kilopascals (kpa), which is the metric measure used internationally).

Manufacturers of passenger vehicles and light trucks determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." (As you will read below, it is difficult to obtain the recommended tire pressure if your tires are not cold.)

Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the "maximum permissible inflation pressure" on the tire sidewall. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

1.5.3. CHECKING TIRE PRESSURE

It is important to check your vehicle's tire pressure at least once a month for the following reasons:

- Most tires may naturally lose air over time.
- Tires can lose air suddenly if you drive over a pothole or other object or if you strike the curb when parking.
- With radial tires, it is usually not possible to determine under inflation by visual inspection.

For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets.

The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper psi when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

1.5.4. STEPS FOR MAINTAINING PROPER TIRE PRESSURE

- Step 1: Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the owner's manual.
- Step 2: Record the tire pressure of all tires.
- Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.
- Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.
- Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.
- Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

1.5.5. TIRE SIZE

To maintain tire safety, purchase new tires that are the same size as the vehicle's original tires or another size recommended by the manufacturer. Look at the tire information placard, the owner's manual, or the sidewall of the tire you are replacing to find this information. If you have any doubt about the correct size to choose, consult with the tire dealer.

1.5.6. TIRE TREAD

The tire tread provides the gripping action and traction that prevent your vehicle from slipping or sliding, especially when the road is wet or icy. In general, tires are not safe and should be replaced when the tread is worn down to 1/16 of an inch. Tires have built-in treadwear indicators that let you know when it is time to replace your tires. These indicators are raised sections spaced intermittently in the bottom of the tread grooves. When they appear "even" with the outside of the tread, it is time to replace your tires. Another method for checking tread depth is to place a penny in the tread with Lincoln's head upside down and facing you. If you can see the top of Lincoln's head, you are ready for new tires.

1.5.7. TIRE BALANCE AND WHEEL ALIGNMENT

To avoid vibration or shaking of the vehicle when a tire rotates, the tire must be properly balanced. This balance is achieved by positioning weights on the wheel to counterbalance heavy spots on the wheel-and-tire assembly. A wheel alignment adjusts the angles of the wheels so that they are positioned correctly relative to the vehicle's frame. This adjustment maximizes the life of your tires. These adjustments require special equipment and should be performed by a qualified technician.

1.5.8. TIRE REPAIR

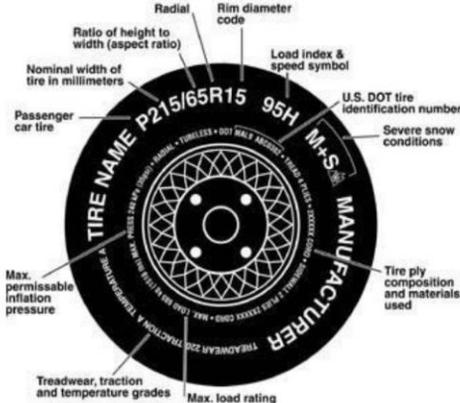
The proper repair of a punctured tire requires a plug for the hole and a patch for the area inside the tire that surrounds the puncture hole. Punctures through the tread can be repaired if they are not too large, but punctures to the sidewall should not be repaired. Tires must be removed from the rim to be properly inspected before being plugged and patched.

1.5.9. TIRE FUNDAMENTALS

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

1.5.9.1. Information on Passenger Vehicle Tires

Please refer to the diagram below.



P The "P" indicates the tire is for passenger vehicles.

Next number This three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

Next number This two-digit number, known as the aspect ratio, gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall for improved steering response and better overall handling on dry pavement.

R The "R" stands for radial. Radial ply construction of tires has been the industry standard for the past 20 years.

Next number This two-digit number is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

Next number This two- or three-digit number is the tire's load index. It is a measurement of how much weight each tire can support. You may find this information in your owner's manual. If not, contact a local tire dealer. Note: You may not find this information on all tires because it is not required by law.

M+S The "M+S" or "MS" indicates that the tire has some mud and snow capability. Most radial tires have these markings; hence, they have some mud and snow capability.

Speed Rating The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time. The ratings range from 99 miles per hour (mph) to 186 mph. These ratings are listed below. Note: You may not find this information on all tires because it is not required by law.

Tire Safety Information

Letter Rating	Speed Rating
Q	99 mph
R	106 mph
S	112 mph
T	118 mph
U	124 mph
H	130 mph
V	149 mph
W	168* mph
Y	186* mph

* For tires with a maximum speed capability over 149 mph, tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph, tire manufacturers always use the letters ZR.

Warranties



Comfort Care Warranty:

Comforts of Home Services Inc (warrantor), of Aurora Illinois hereby provides a 5 year limited warranty on our trailer frame and a 1 year limited warrantee on the trailer as a whole. Sealant, electrical components, hydraulics, hoses, wall coverings, trim and paint are warranted for 1 year. The warrantor guarantees the product against defects in materials and workmanship. The warranty described in this agreement is in lieu of all other warranties, expressed or implied. This warrantee shall apply to the retail consumer (original purchaser), as shown on the sales agreement.

Certain individual components are warranted by their respected manufacturers' warranties and therefore are excluded from the limited warranty provided by the warrantor. These components include, but are not limited to; tires, wheels, axles, couplers, jacks, light fixtures, windows, doors, heaters, air conditioners, toilets, sinks, faucets, pumps, awnings. Warranty claims must be filed with the respective component manufacturers' warranty department. Any installation fees, shipping fees, or other costs associated with the repair of the items not covered by the respected manufactures warranty are the responsibility of the trailer owner.

This limited warranty is void if the product:

1. Is not properly maintained.
2. Is neglected, abused or misused.
3. Is overloaded or made to perform beyond recommended specifications.

The limited warranty is also void if damage results from continued use after a suspected defect is or should have been discovered. The warrantor reserves the right to make the final determination as to whether any of the above exclusions may nullify a warranty claim.

The warranty shall not pay nor make provisions for:

1. Service charges; towing charges; and transportation charges, which are the responsibility of the purchaser.
2. Loss of time, inconvenience; loss of use; rental substitution equipment; loss of revenue; or other commercial or personal loss.
3. Loss or damage to any and all contents.
4. Defacing; scratches; dents; chips; and tears, on any surface, not caused by the warrantor.

Furthermore the warrantor does not warranty any modification(s) made to either the interior or exterior of the product, even if damage occurs as a result of warranty claim.

Please refer to the products owner's manual, or authorized representative of the warrantor, for instructions on filing a warranty claim. The provisions of the limited warranty shall be interpreted and governed pursuant to the laws of the State of Illinois.



LIMITED ONE-YEAR WARRANTY COMMERCIAL GRADE AIR CONDITIONER

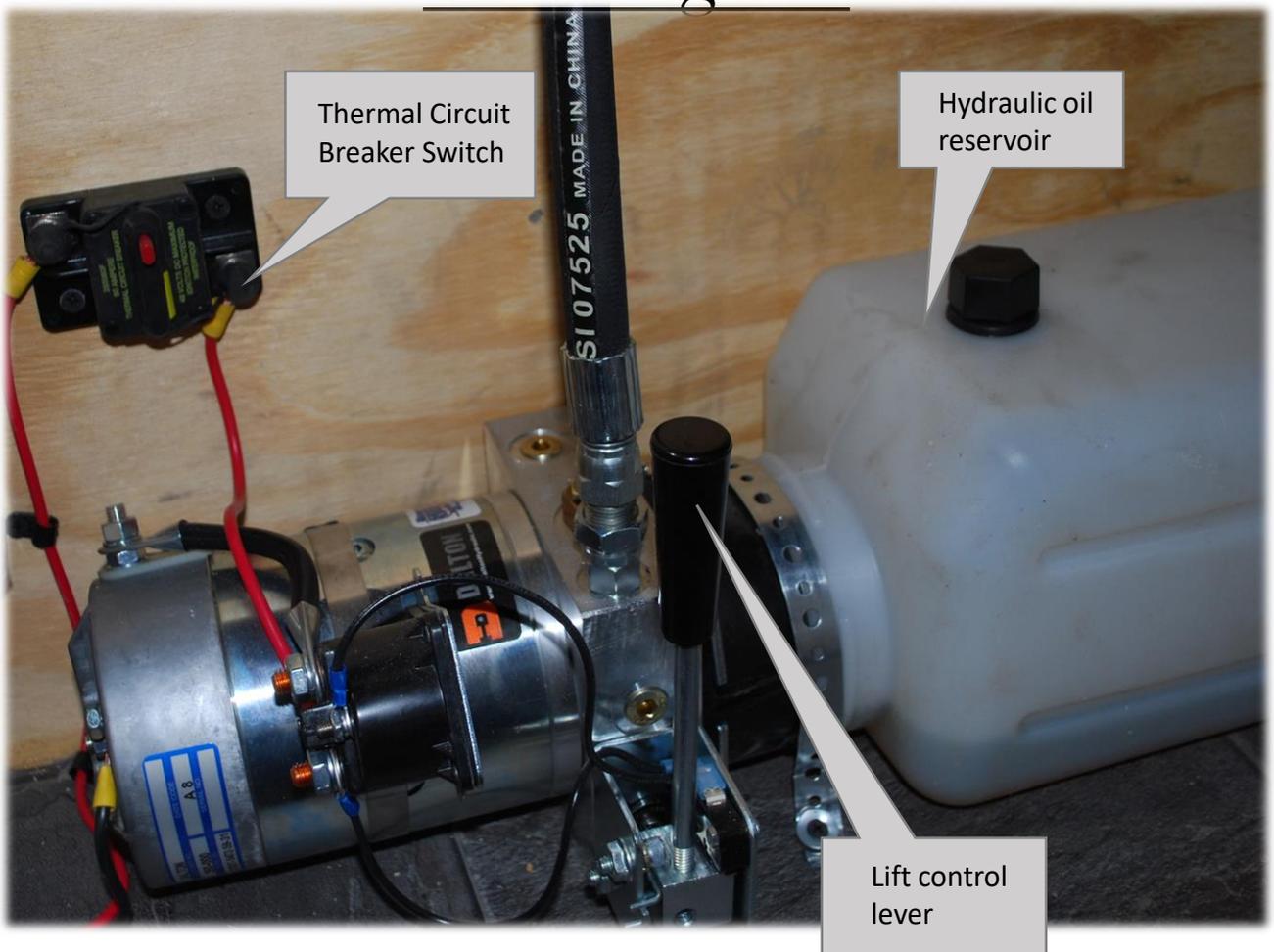
THE SELLER NAMED BELOW MAKES THE FOLLOWING WARRANTY WITH RESPECT TO THE DOMETIC PRODUCT:

1. This warranty is made only to the first purchaser (herein after referred to as the "Original Purchaser") who acquires the product for his own use and is installed and operated within the continental United States and Canada.
2. This warranty will be in effect for one year on parts and freight and one year on labor from the date of purchase by the Original Purchaser. It is suggested that the Original Purchaser retain a copy of the dated bill of sale as evidence of the date of purchase.
3. This warranty covers only specified Dometic parts, which shall be free from defects in material and workmanship under normal use. This warranty does not cover conditions unrelated to the material and workmanship of the product. Such unrelated conditions include, but are not limited to: (a) damage not reported within 7 days; (b) the need for normal maintenance and any damage resulting from the failure to provide such maintenance; (c) failure to follow Sellers instructions for use of this product; (d) any accident to or misuse of any part of this product and any alteration by anyone other than the Seller or its authorized representative; (e) damage or failure caused by installation of accessories or parts not manufactured and marketed by the Seller will void any warranty, implied or written; (f) corrosion, salt water; (g) radio frequency interference (RFI) or electromotive interference (EMI).
4. The specified parts covered by this warranty are as follows: switches, thermostats (excluding infrared remote controls, which are covered for a period of one year, not including batteries), relays, capacitors, motors, electronic module boards, solar panels and the sealed system; compressor, evaporator coil, condenser coil, refrigerant lines, capillary tubes and reversing valve.
5. It is suggested the Original Purchaser provide preventative maintenance on a yearly basis. Suggested preventative maintenance is: (a) check mounting/anchor bolts for proper torque; (b) inspect/clean and comb condenser fins; (c) inspect/clean and comb evaporator fins; (d) inspect/clean evaporator blower wheel and condenser fan blade/blower wheel; (e) clean return air filter. The cost of preventative maintenance is the Original Purchaser's responsibility and should take about one hour.
6. In order to obtain the benefits of this warranty, the Original Purchaser must contact the Seller or contact an Authorized Dometic Mobile Service Center. Dometic will cover up to one service call per warranty issue claim. If more than one service call is needed for the same warranty issue the Original Purchaser will be responsible for those charges. To obtain the location of the nearest Authorized Dometic Mobile Service Center, please call 1-800-544-4881 or in Canada call 1-519-653-4390. Authorized Dometic Mobile Service can also be found at our web site; www.DometicUSA.com. Please note that Dometic will cover the cost of a service call up to \$100.00 per occurrence.
7. Any item returned in the manner described in paragraph 6 will be examined by the Seller or the Authorized Dometic Service Center. If it is found that the returned item was defective in material and workmanship, the Seller or the Authorized Dometic Service Center will repair the product per the terms outlined in paragraph 4. CONFIRM THE SERVICE AGENCY IS AN AUTHORIZED DOMETIC SERVICE CENTER. DO NOT PAY THE SERVICE AGENCY FOR WARRANTY REPAIRS. SUCH PAYMENTS WILL NOT BE REIMBURSED.
8. The Seller does not authorize any person or company to create any warranty obligations or liability on their behalf. This warranty is not extended by the length of time which you are deprived of the use of the product. Repairs and replacement parts provided under the terms of this warranty shall carry only the non-expired portion of this warranty.
9. In no event shall either Seller be liable for incidental or consequential damages. This includes any damage to another product or products resulting from such a defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply.
10. Any implied warranty, including the implied warranty of merchantability and fitness for any purpose, is limited to the duration of this limited warranty. Some states do not allow limitations on how long an implied warranty can last, so the above limitation may not apply.
11. THIS WARRANTY GIVES SPECIFIC LEGAL RIGHTS, YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. No action to enforce this warranty shall be commenced later than ninety (90) days after the expiration of the warranty period. Claims must be submitted in writing to the Dometic Warranty Department for arbitration.
12. Warranty does not apply if used or installed on **Marine applications**.
13. Warranty does not apply if used or installed on **Semi-Tractors** and/or **Trailers** without **Air Ride** suspensions.
14. Warranty does not apply if used on commercial purposes involving off highway travel.
15. The seller reserves the right to change the design of any product without notice and with no obligation to make corresponding changes in products previously manufactured.

Dometic, LLC
Warranty Department
2320 Industrial Parkway
Elkhart, Indiana 46516
Phone: 574-294-2511
Fax: 574-389-3975

Form. No. 3313294.000 12/09
(French 3313299.000)
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LaGrange, IN 46761

Hydraulics and ADA Lowering Pod



Your trailer is equipped with an ADA Lowering Pod. Located in the utility room is the hydraulic control system installed to raise and lower the pod. The pump is operated using the Lift Control Lever located on the front of the pump. The pump is powered by a battery installed in the utility room. This battery is fuse protected with a Thermal Circuit Breaker Switch installed on the wall above the pump. The battery must be fully charged, or the pump will not operate. Once lowered, the ADA pod must be leveled for the door to operate correctly. This will need to be done with shims under the feet. Do not walk on the ramp while the pod is raised. The increased angle of the ramp while the box is raised puts additional stress on the ramp welds.

ADA Lowering Room Transport



On all ADA lowering pod trailers, 2 safety straps are provided for transport.

These straps must be in place whenever the pod is raised and the trailer is in transport.

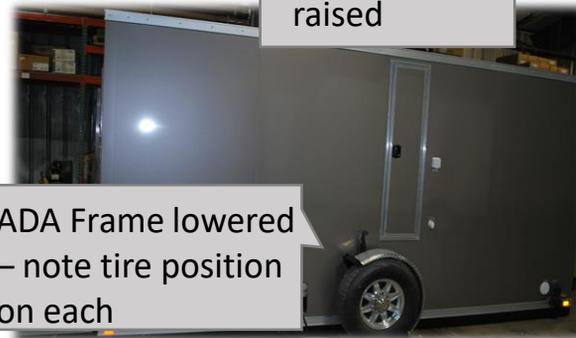
To operate:

1. While the room is lowered:
 1. Close and lock the entry door
 2. Raise the ramp and secure using latches
2. Raise ADA room to full height
3. Hook straps onto the D-rings welded to ADA room and main trailer
4. Use ratcheting system on safety straps to tighten
5. Cut off power to the hydraulic pump by tripping the thermal fuse located above the pump

Full Lowering Trailer Operation



ADA Frame raised



ADA Frame lowered – note tire position on each



Front jack with control switch



Electric side jack



Electric side jack controls

To lower frame:

1. Raise frame to full height by lowering front and side jacks
 - i. Control switch for the front jack is located on jack itself
 - ii. Controls for the side jacks are located in the utility room on the orange wand
2. Once the pressure is off the leaf springs, pull the **Red** handle hitch pins from each mount
 - i. There will be one pin per wheel
3. Lower the frame by raising the jacks
4. Repeat this process in reverse to raise the trailer.
5. **When raising and lowering, level the trailer in stages – middle goes down bit, then the front.**

Before transporting, double check to make sure hitch pin is in place with the cotter pin fully secure in place. Also, check to make sure the ramp is up, and the ramp locking pins are fully engaged.