

# *Pleasure-Way*

## **2020 LEXOR TS/FL**

Ram ProMaster



**OWNER'S MANUAL**

 **WARNING**

**IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING.**

Cooking appliances need fresh air for safe operation.

**Before Operation:**

Open overhead vent or turn on exhaust fan.  
Open Window.

**FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.**

Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle, and proper ventilation when using the cooking appliances(s) avoids dangers of asphyxiation. It is especially important that cooking appliances not be used for comfort heating, as the danger of asphyxiation is greater when the appliance is used for long periods of time.

 **WARNING**

**DO NOT FILL CONTAINER (S) TO MORE THAN 80 PERCENT OF CAPACITY. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.**

Overfilling the propane container can result in uncontrolled propane flow, which can cause fire or explosion. A properly filled container contains approximately 80 percent of its volume as liquid propane.

 **DANGER**


**IF YOU SMELL PROPANE:**

Extinguish any open flames, pilot lights and smoking materials.  
Do not touch electrical switches.  
Shut off the propane supply at the container valve(s) or propane supply connection.  
Open doors and other ventilating openings.  
Leave the area until the odor clears.  
Have the propane system checked and leakage source corrected before using again.  
Failure to comply could result in explosion resulting in death or serious injury.

 **WARNING**


Propane cylinders shall not be placed or stored inside the vehicle. Propane cylinders are equipped with safety devices that relieve excessive pressure by discharging propane to the atmosphere.

**FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.**

 **WARNING:** Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to [www.P65warnings.ca.gov/diesel](http://www.P65warnings.ca.gov/diesel).

 **WARNING:** Operating, servicing and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).

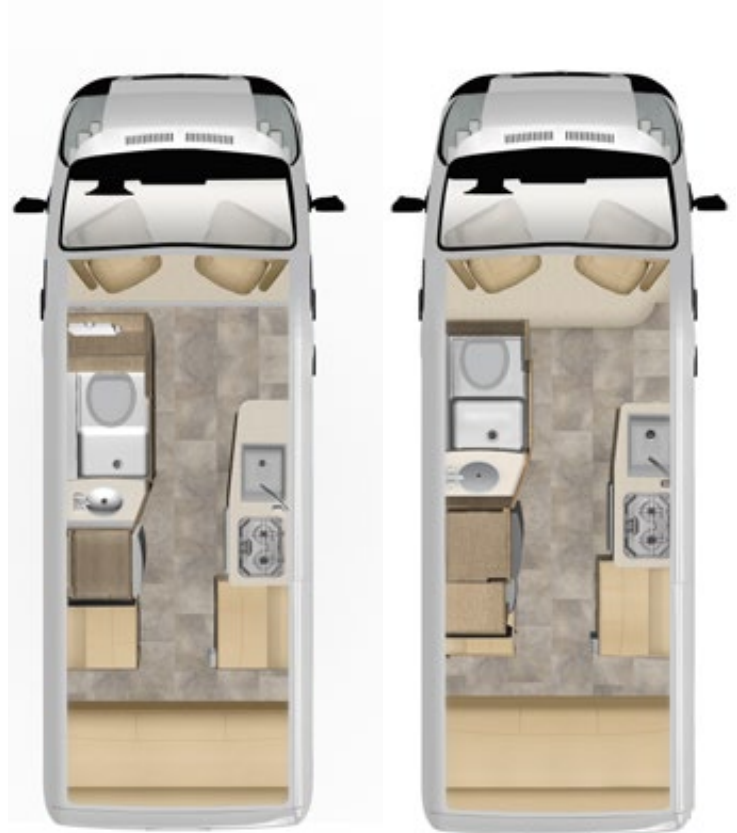
# *Pleasure-Way*

Pleasure-Way Industries Ltd. takes great pride in the quality and excellence that the Pleasure-Way name represents. We appreciate having you as a customer and welcome you into the Pleasure-Way family. This manual is provided to introduce you to the many features of your new Lexor including operation, maintenance and warranties. We strongly advise you to take time to read this manual, the Ram ProMaster chassis owners manual as well as those of the motorhome components before you use your new motorhome. It will help you to better understand the many operational features of this recreational vehicle.

After reading this manual, be sure to keep it in the motorhome as a reference. Your Pleasure-Way dealer will be glad to answer any further questions about the operation of your motorhome and the appliances.

All reasonable precautions have been taken in the preparation of this manual. We have been as accurate as possible at the time of this publication. However, due to our policy of continuous improvement and refinement to our product, Pleasure-Way reserves the right to make product changes at any time without prior notice and without incurring obligations. As a result, Pleasure-Way assumes no responsibility for errors or omissions in the accuracy in the content of this manual.

We know that you will enjoy your new Pleasure-Way and we wish you many miles of pleasant and carefree driving. Happy Travels!



**LEXOR TS**

**LEXOR FL**



# TABLE OF CONTENTS

01	<b>WARRANTY/POLICIES</b>
06	<b>SAFETY</b>
06	Occupant And Cargo Carrying Capacity
06	Smoke Detector
07	Fire Extinguisher
07	LP/Carbon Monoxide Detector
07	Generator
08	Refueling
08	Filling the LP Gas Fuel Cylinder
08	Appliances
08	TV
09	GFCI Outlet
09	Vehicle Ground Clearance
09	Seat Belts
09	Emergency Escape
10	<b>MOTORHOME EXTERIOR</b>
10	Chassis Paint Code
10	Dimensions/Capacities/Specs/Appliances
12	Tire and Loading Information
12	Propane Fill, Breather Valve & BBQ Quick Connect
12	Sewer Dump Compartment
12	Utility Center
12	Water Heater/Vent Access
13	Exterior Shower
13	Fridge Vents
13	Fresh Water Holding Tank
13	Furnace Vent
13	Exterior 110-Volt Plug
13	Porch light
14	Power Awning
15	Non-Capped Sewer Vent Pipes

16	<b>MAINTAINING YOUR MOTORHOME</b>
17	Ultraleather Cleaning and Care
18	<b>TRAVEL PREPARATION</b>
19	<b>MOTORHOME SYSTEMS</b>
19	LP Gas System
20	LP Fill Valve & LP Bleeder Valve
20	BBQ Quick Connect
21	LP Tank Gauge
21	How To Use The LP Appliances
21	Cooktop
22	Furnace
22	Refrigerator
23	Water Heater
24	Fresh Water System
24	Fresh Water Fill and Drain
24	Fresh Water System Drains
24	Waste System
25	Draining the Waste Holding Tank
26	City Water Connection
26	Water Pump & Trouble Shooting
27	Kitchen Faucet
27	Toilet
28	<b>WINTERIZING</b>
28	Winterizing The Water System
29	Optional Winterizing for Milder Climates
30	Winter Storage Electrical

31	<b>LIVING AREA ELECTRICAL SYSTEM</b>
31	Voltage Chart
32	AC 110-120 Volt Power
32	Automatic Transfer Switch
33	Inverter/Charger
34	Inverter Display / Control Panel
35	AC Electrical Distribution Panel
35	GFCI Outlets
36	DC Breakers
36	DC Load Center
38	12 Volt Battery Disconnect
38	Charge Line Disconnect
38	Mastervolt DC-DC Charger
39	Touchscreen Control Panel
39	Trouble Shooting the DC / 12 Volt System
40	Trouble Shooting the AC Power
41	Chassis Battery
42	Coach Batteries
45	Generator
46	Automatic Generator Start

48	<b>MOTORHOME INTERIOR</b>
48	Interior Cockpit Map Light
49	Microwave
49	Solar Panel Package
50	Fan-Tastic® Vent Fan
50	Air Conditioner
51	USB Charging Port
51	TV & Blu-ray
52	Bed Layout
52	Front Cab Privacy Shades
53	Table
53	Jack and Jack Tools
54	<b>TIRE SAFETY</b>
60	<b>MAINTENANCE LOG</b>





## WARRANTY / POLICIES

### CUSTOMER RESPONSIBILITY

It is important you read and understand the information provided to you in the package containing all the manuals and information pertaining to your Pleasure-Way Motorhome.

Familiarize yourself with the applicable warranties. You are responsible for ensuring the procedures for obtaining warranty repairs are followed properly. It is your responsibility and obligation to return your motorhome to your authorized Pleasure-Way dealership for warranty service repairs.

As the owner of the Motorhome, you are responsible for regular and proper maintenance performed in accordance with the Pleasure-Way and OEM manuals provided. Regular and proper maintenance will help prevent conditions arising from neglect that are not covered under warranty.

### WHAT THIS LIMITED WARRANTY COVERS

Pleasure-Way Industries Ltd. warrants the specified new Motorhome free from defects in material and craftsmanship on portions manufactured by Pleasure-Way Industries Ltd. under normal use and service. Pleasure-Way Industries' obligation, under this limited warranty, shall be limited to 60 months / 60,000 miles / 100,000 kilometers (whichever comes first) after the date of purchase by the first retail purchaser from an Authorized Pleasure-Way Dealer. Warranty shall be fulfilled by an Authorized Pleasure-Way Dealer or Authorized Pleasure-Way service facility.

**This Pleasure-Way Warranty is non-transferable to subsequent owners.**

## WHAT THIS LIMITED WARRANTY DOES NOT COVER

*This limited warranty shall not apply to the following:*

- A Motorhome that has been altered outside our factory in any way so as, in our sole opinion and discretion, to affect its stability, operation or reliability.
- Deterioration due to wear and or exposure, including but not limited to rust: corrosion, oxidation and cosmetic blemishes.
- A Motorhome that, in our sole opinion and discretion, has been subject to misuse, negligence, or accident.
- A Motorhome that has been declared a total loss by an insurance company, or a motorhome title indicates it is designated as “salvage”, “junk”, “rebuilt” or a word of similar impact.
- The automotive chassis is covered by its own manufacturer’s warranty, including by way of example, but not limited to: power train, engine, drive-train, tires and muffler. To learn more about the specific automotive chassis not covered under the Pleasure-Way Warranty please contact your authorized selling dealer, Pleasure-Way Industries Ltd. or review your Mercedes-Benz or Ram ProMaster warranty package information provided with the coach.
- Appliances and components covered by their own manufacturer’s warranties, including but not limited to: the microwave, refrigerator, stove, heater, television, generator and roof air conditioners. To learn more about specific component parts or appliances not covered under the Pleasure-Way warranty please contact your selling dealer, Pleasure-Way Industries or review your warranty package information provided with the coach.
- Unauthorized repairs, alterations or modifications.
- Routine maintenance.
- Items that are working as designed but which you are unhappy with because of the design or function.
- Damages caused by, but not limited to: hail, tornadoes, lightning, floods, earthquakes, hurricanes, fire, rain, and all other environmental conditions, which include but are not limited to, tree sap, tar, chemicals, oils, salts, road hazards, stone chips, infestations, rodents and /or acts of God.
- Defects or repairs required, as an example but not limited due to; improper loading, load distribution, accident, collision, vandalism, abuse, neglect, improper maintenance, rust or corrosion.
- Damage caused by the failure to seek and obtain repairs in a timely manner.
- Damage caused by the failure to use reasonable efforts to mitigate damage caused by defects.
- Damage caused by the failure to comply with the instructions set forth in the owner’s manual.
- Goods damaged while stored in exterior storage compartments. Exterior storage compartments may not be moisture free due to weather and humidity conditions. It is advised that you store items accordingly.
- Condensation and the results of condensation including, but not limited to, water damage and the growth or mildew or mold. Mold and mildew are natural growths given certain environmental conditions and are not covered by the terms of this warranty.
- Failure of the coach and /or chassis resulting in incidental damages, such as but not limited to: goods stored both inside and outside the coach; loss of use and equipment of Motorhome; inconvenience; cost of rental vehicle; cost of accommodations; travel expenses; towing; meals; and other miscellaneous incidental expenses. Some states do not allow exclusions or limitation of incidental or consequential damages, so the above limitations or exclusion may or may not apply to you.



**THE CONDITIONS OF THIS LIMITED WARRANTY SHALL NOT APPLY TO DEGENERATION DUE TO WEAR AND TEAR AND EXPOSURE AFTER THESE LIMITATIONS**

**FOR NINETY (90) DAYS** *from the original retail purchase date:*

- Adjustments to compartment door latches, light bulbs/LEDs, fuses, remote and smoke detector batteries.

**FOR ONE (1) YEAR** *from the original retail date purchase date or 12,000 miles / 20,000 kilometers (whichever comes first), by the original retail purchaser from an Authorized Pleasure-Way Dealer:*

- All seat, curtain, door panel, wall and ceiling fabrics used in the coach
- Window seals and caulking
- Exterior power cable hatch
- City water fill
- Porch light
- Exterior cable TV outlet
- Carpet
- Linoleum
- Black and gray water termination valves
- Exterior striping
- Painted plastic exterior body molding and bumpers. Painting exterior moldings magnifies the original equipment manufacturer condition of the plastic molding. Some conditions of the plastic, such as but not limited to, body attachment points and texture may be more visible when painted. These are considered normal.

**FOR TWO (2) YEARS** *or 24,000 miles or 40,000 kilometers (whichever comes first) by the original retail purchaser from an Authorized Pleasure-Way Dealer:*

- Ultraleather® fabrics
- Foam used in cushions

**FOR THREE (3) YEARS** *or 36,000 miles or 60,000 kilometers (whichever comes first) by the original retail purchaser from an Authorized Pleasure-Way Dealer:*

- Exterior painted surfaces

This warranty is expressly in lieu of all other warranties, expressed or implied, and all other obligations or liabilities for alleged representation or negligence. Pleasure-Way Industries Ltd. neither assumes nor authorizes any other person to assume for us any liability in connection with the sale of our Motorhomes other than expressed above.

All correspondence should be directed to the authorized Pleasure-Way dealer from whom the Motorhome was purchased and must specify the serial number and date of purchase of Motorhome in question.

Pleasure-Way Industries Ltd. reserves the right to make changes in Motorhomes built and/or sold by it at any time without incurring any obligations to make the same or similar changes on Motorhomes previously built and/or sold by Pleasure-Way Industries Ltd.

For emergency repairs while traveling, you may choose to deal with non-authorized RV service facilities; however, all warranty repairs must be pre-authorized by Pleasure-Way. Pleasure-Way will, at its option, replace or repair free of charge any defective part, including labor. The purchaser shall notify their authorized Pleasure-Way Dealer within the warranty period.

If you obtain warranty repairs from a non-authorized RV service facility without Pleasure-Way pre-authorization, it is at Pleasure-Way's sole discretion whether or not to reimburse the claim.

In the event that this Motorhome is used for commercial or rental fleet purposes, the warranty coverage shall be limited to one (1) year 12,000 miles / 20,000 Km (whichever comes first) from the date of original purchase.

## OBTAINING WARRANTY REPAIRS

To obtain warranty repairs, you must contact your authorized Pleasure-Way dealer and schedule an appointment. It is best if you have a written list of defects or items in need of repair. As the owner, you are solely responsible for the maintenance of the motorhome as required or recommended by the owner's manual and associated costs of that maintenance. Repairs necessitated by failure to maintain the Motorhome as required or recommended are not covered by warranty.

**NOTE:** *Pleasure-Way does not control the scheduling of service work at authorized or independent dealerships. You may encounter some delay in scheduling or completion of work.*

## WARRANTY POLICIES

Warranty repairs must be within the five year or 60,000 miles / 100,000 kilometers (whichever comes first) limited warranty.

Pleasure-Way warranty registration cards must be on file before any claims will be processed. Claims made without warranty registration cards will be rejected until proof of ownership can be established.

Pleasure-Way Industries Ltd. will not reimburse any claims for work done on any components or appliances that are covered under their respective manufacturer's warranties. These warranties must be claimed through the manufacturer of the appliance or component. Examples include but are not limited to: refrigerator, microwave, roof air-conditioning, water pump, furnace, TV etc.

All warranty work required to be done on the chassis must be taken to an authorized Ford, Mercedes-Benz, Chrysler or Chevrolet dealership (depending on your chassis make) and processed through their warranty procedures. Pleasure-Way Industries Ltd. will not reimburse any claims regarding the chassis. Pleasure-Way Industries Ltd. will pay for the removal and reinstallation of motorhome components only if absolutely necessary to perform Chassis warranty repairs. Pleasure-Way Industries Ltd. will not reimburse any costs in the removal and reinstallation of these components if it is: out of the warranty period; non-warranty repairs; and /or routine maintenance or service.

RAM PROMASTER WARRANTY USA	<p>BASIC LIMITED WARRANTY – coverage for 3 years or 36,000 miles</p> <p>POWERTRAIN LIMITED WARRANTY – coverage for 5 years or 60,000 miles</p> <p>ROADSIDE ASSISTANCE - coverage for 5 years or 60,000 miles</p>
RAM PROMASTER WARRANTY CANADA	<p>BASIC LIMITED WARRANTY – coverage 3 years or 60,000 kms</p> <p>POWERTRAIN LIMITED WARRANTY – coverage for 5 years or 100,000 kms</p> <p>ROADSIDE ASSISTANCE - coverage for 5 years or 100,000 kms</p>



## SAFETY

For your safety while traveling with your Pleasure-Way motorhome, we have provided safety components throughout the vehicle. In order for your vehicle to maintain the safest possible conditions, these components must be tested and maintained on a regular basis, according to the detailed manufacturer's operating instructions.

### OCCUPANT AND CARGO CARRYING CAPACITY

The Tire and Loading Information label, found on the driver side door pillar, states the OCCC of your motorhome. This figure states the maximum allowable weight of all occupants (including the driver), plus the weight of all food, tools, full fresh water tanks, and personal belongings. The tongue weight of a towed trailer also counts as cargo. If you are traveling with water in your holding tank, weight can be calculated by using this ratio: 1 kg/L or 8.3 lb/gal.

The OCCC of your motorhome was calculated by adding the weight of: the full LP fuel tank, the full vehicle fuel tank and the dry weight of the motorhome (as shipped from the factory) and subtracting that number from the Gross Vehicle Weight Rating (GVWR).

**NOTE:** All US units include a second OCCC label on the inside of the passenger door.


### SMOKE DETECTOR

A smoke detector is located on the ceiling of your unit near the front. Smoke detectors may give you a warning of fire and smoke, but only if used and maintained in accordance to the manufacturer's instructions.

- This device should be tested after each time your vehicle has been in storage, before each trip, and at least once each week during your travels.
- Do not block air circulation in the area where the smoke detector is located.
- Ensure you connect the battery inside the detector upon receiving your new unit. (9 volt battery located inside the unit.)
- Install a fully charged fresh battery at least once a year.

All Pleasure-Way Motorhomes in Canada are CSA (through QAI) and CMVSS certified, and may exceed the approved installation criteria.

All Pleasure-Way Motorhomes in the United States are FMVSS certified and bear the R.V.I.A. seal of approval, and may exceed the individual state requirements.



**TIRE AND LOADING INFORMATION**  
**RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT**

Seating Capacity: Total:  Front:  Rear:   
→ The combined weight of occupants and cargo should never exceed  kg or  lbs

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	<input type="text"/>	<input type="text"/>	FO-352
REAR ARRIERE	<input type="text"/>	<input type="text"/>	
SPARE DE SECOURS	<input type="text"/>	<input type="text"/>	



## FIRE EXTINGUISHER

A fire extinguisher is located on the kitchen cabinet next to the main entrance door for ease of accessibility from the interior or exterior.

**WARNING:** *This fire extinguisher is a type “ABC”, which will extinguish flammable liquids, electrical fires, and trash, wood and paper fires. You should inspect the extinguisher at least once a month according to the manufacturer’s instructions.*



## LP/CARBON MONOXIDE DETECTOR

A liquid propane (LP) / carbon monoxide (CO) gas detector is located near the floor level below the driver side ottoman. This detector will detect liquid propane gas, carbon monoxide and other gases that are heavier than air. The detector is powered by the coach batteries and will only operate when the 12 volt battery disconnect switch is ON.

The detector should be tested after each time your vehicle has been in storage, before each trip, and weekly while the vehicle is in use. The test procedure should be performed in accordance to manufacturer’s instructions. Do not block air circulation in the area where the detector is located.

**NOTE:** *The LP/CO detector will sound to indicate a low coach battery voltage.*



## GENERATOR

When launching a boat or some form of watercraft with your Pleasure-Way motorhome, it is imperative to not submerge the generator in water. Please refer to the generator owner / operating manual for proper use and maintenance information. The generator is located behind the rear axle, between the frame rails. The generator access door faces the rear of the vehicle.



## REFUELING

When you are refueling your fuel tank or your propane system, ensure that your vehicle and your main LP valve is shut off. Ensure that the pilot lights have been extinguished as well. Some appliances in your vehicle have auto ignition. Ensure the appliances are shut off so ignition will not activate.

**WARNING:** *Even with the main LP valve shut off there is enough LP gas in the lines for the pilot lights to continue to burn.*



## FILLING THE LP GAS FUEL CYLINDER

The propane tank valve must be closed and all pilot lights and appliances, along with their igniters, must be turned OFF during refueling of the motor fuel and/or the propane fuel tank. Only qualified personnel should refuel your propane tank. Do not refuel the propane tank to more than 80% of its capacity. Liquid will appear at the breather valve at 80%. To reduce the danger of fire and/or explosion, do not store gasoline or other flammable liquids inside your vehicle.

**NOTE:** *When the tank reaches 80% capacity the LPG gauge on the touchscreen control panel will read 100%.*

**WARNING:** *Ensure the propane system valve is fully shut when the vehicle is in motion. It is not safe to travel while propane appliances are in use. The propane switch is located in the driver side utility center.*



## APPLIANCES

It is not safe to use cooking appliances to heat the interior of the coach due to the danger of asphyxiation. It is recommended that you read all of the appliance owner / operating manuals prior to using the appliances.



## TV

When the vehicle is in motion, it is necessary to have the flat screen television locked into travel position to prevent damage to the flat screen, bracket and to the cabinets.



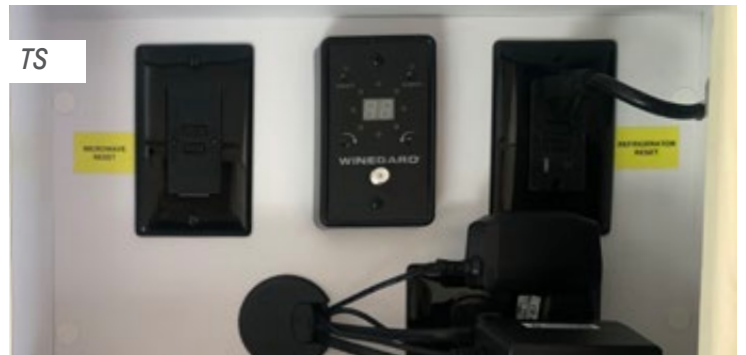
## GFCI OUTLET

A ground fault circuit interrupter (GFCI) 110-volt receptacle located on the driver side ottoman provides protection against line-to-ground electrical shock hazards that could be harmful or even fatal. The outlets that are on this circuit are the exterior, kitchen and rear bench receptacles. The GFCI receptacle must be tested at least once a month in accordance with the manufacturer's instructions.

Location of GFCI for the microwave and fridge:

*Lexor TS*- In the cabinet above the Blu-ray player

*Lexor FL*- In the closet



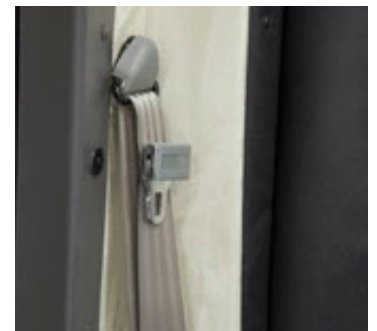
## VEHICLE GROUND CLEARANCE

Your motorhome is equipped with underside holding tanks, waste tanks, plumbing lines, propane lines and other RV related items. Please be careful when driving your motorhome on uneven or poorly maintained roadways.



## SEAT BELTS

Only forward-facing seats equipped with factory installed seat belts are to be occupied while the vehicle is in motion. All passengers must be seated in these seats only. Seat belts must be fastened while the vehicle is in motion. If the power sofa is occupied while the vehicle is in motion, the sofa must be in a full upright position.



## EMERGENCY ESCAPE

If you need to make an emergency escape from the interior of your motorhome, use the interior door handle available on all doors.

# MOTORHOME EXTERIOR

## MOTORHOME DIMENSIONS AND CAPACITIES

Your motorhome is larger than your standard van or automobile, so please be careful when entering underpasses, garages, parkades, etc.

3.6L Pentastar V6 featuring 283 HP / 260 LB-FT Torque  
 6 Speed Transmission  
 159" Wheel Base  
 2,150 lbs Towing Capacity



## CHASSIS PAINT CODE

ProMaster Silver paint Code: PS2

## DIMENSIONS

Length: Bumper to Bumper	20' 11"	638 cm
Width with Side Mirrors Extended	8' 2.5"	250 cm
Width with Side Mirrors Retracted	7' 6"	228.6 cm
Overall Height	9' 3.5"	283 cm
Interior Standing Height	6' 3"	190 cm
Queen Bed Size	73" Wide X 76" Long	
Drivers Side Bed	26" Wide X 76" Long	
Passenger Side Bed	26" Wide X 76" Long	

## CHASSIS SPECIFICATIONS

GVWR	9,350 lbs	4,241 kgs
GCWR	11,500 lbs	5,216 kgs
GAWR Front	4,629 lbs	2,100 kgs
GAWR Rear	5,360 lbs	2,431 kgs
Tires (All Season)	LT245/75R/16	
Rims (all)	16 x 6.0	
Tire Pressure Front	65 PSI	450 KPA
Tire Pressure Rear	80 PSI	550 KPA
Wheelbase	159"	
Transmission	6 SP Automatic	
Standard Engine	3.6L V6 Pentastar	



## CAPACITIES

Fuel Tank Capacity (Gas)	24 US Gal	90 L	149.3 lbs
Fresh Water/Potable Water	29.9 US Gal	113.2 L	250 lbs
Grey Water Tank (Sink/Shower)	20.4 US Gal	77.2 L	170 lbs
Black Water Tank (Toilet)	12 US Gal	45.4 L	100.1 lbs
Liquid Propane (LPG) (at 80%)	4.7 US Gal	18 L	20 lbs
Towing Capacity	2,150 lbs	975.2 kgs	

## APPLIANCES

## MANUFACTURER

## MODEL

Generator	Onan RV QG 2800	2.8HGJBB-1120A
Fridge 4.9 cu ft.	Dometic (3 way)	RM8330
Convection Microwave	High Pointe	EC028BMR
Air Conditioner	Dometic	640312CXX1CO
Air Conditioner Lower	Dometic	3310741.016
Cook Top	SMEV/Dometic	P18022
Water Pump	Shurflo	4008-101-A65
Water Heater	Truma Aqua Go Comfort Plus	DLE60CP
Toilet	Thetford Aqua Magic II	42051
Furnace	Atwood	AFSD16121
Awning	Fiamma	F65 Eagle 13' 1" #06693C13R
Solar Panel	Carmanah (95 watt)	CTI - 95
Solar Control	Go Power	GP-PWM-30
TV	LG Smart TV	24 LH 4830-PU
Blu-ray	LG	BP350
Inverter / Charger	Xantrex Freedom XC 2000	817-2080
DC to DC Charger	Mastervolt	Mac Plus 12/12-50
ATS Switch	Progressive Dynamics	5100
Coach Batteries	ECO-ION Lithium 100 AH	Life PO 4
Roof Vent	Fan-tastic Vent® Fan/Dometic	FV8300LWUSF81
Soundbar	Bose	Solo 5

**NOTE:** All measurements and capacities are approximations. Every effort has been made to be as accurate as possible.

### PLEASE NOTE:

- Appliances and options may change without notice and some appliances and equipment may be optional.
- Due to Pleasure-Way's policy of continuous improvement, Pleasure-Way Industries Ltd. reserves the right to make product changes at any time without incurring obligation.
- The chassis manufacturer may make mechanical and option changes without Pleasure-Way Industries Ltd. incurring any obligation.
- Pleasure-Way Industries Ltd. cannot be held responsible for changes made to an appliance supplied by another distributor or manufacturer.
- Pleasure-Way Industries Ltd. cannot be held responsible for dealer installed options.

## TIRE AND LOADING INFORMATION

The tire and loading information is located on the driver side door pillar. On this label you will find your tire size as well as cold tire pressure rating. Also found on this label is the seating capacity along with the occupant and cargo carrying capacity of your motorhome. Please refer to your specific label for accurate information.

TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT			
Seating Capacity: Total: <input type="text"/>		Front: <input type="text"/>	Rear: <input type="text"/>
The combined weight of occupants and cargo should never exceed <input type="text"/> kg or <input type="text"/> lbs			
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 FD-322
FRONT AVANT	<input type="text"/>	<input type="text"/>	
REAR ARRIERE	<input type="text"/>	<input type="text"/>	
SPARE DE SECOURS	<input type="text"/>	<input type="text"/>	

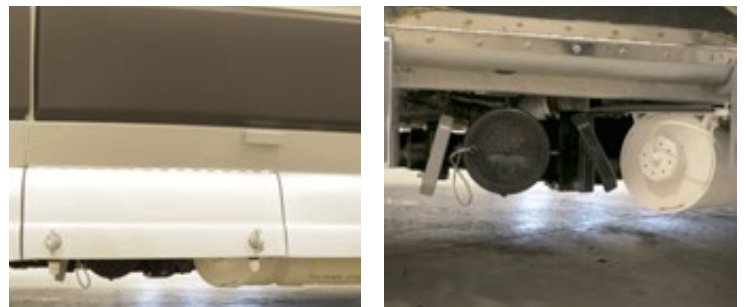
## PROPANE FILL, BREATHER VALVE AND BBQ QUICK CONNECT

This fill valve and breather valve allow the on board propane tank to be filled. Once fluid appears from the breather valve, the tank is filled to 80%. The interior gage will read 100%.



## SEWER DUMP COMPARTMENT

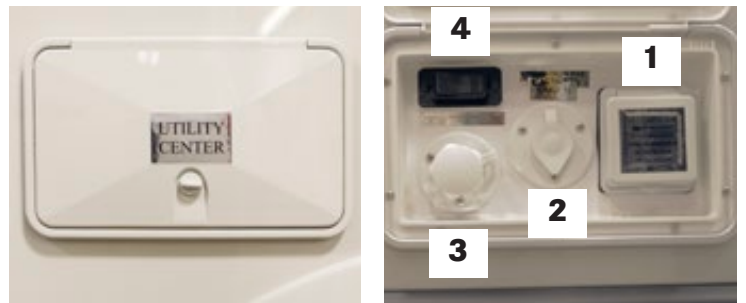
Located on the driver side running board, the storage compartment is located behind the driver's door entrance step. This compartment gives ease of access to the gray and black dump handles, as well as the sewer connection. The sewer hose container is to the right hand side of the black water dump handle, mounted below the driver side running board



## UTILITY CENTER

Located in the middle of the driver side main wall panel, this compartment contains four main components used in your RV:

1. shore power hook-up
2. cable TV hook-up
3. pressurized city water hook-up
4. LP electric valve switch



## WATER HEATER VENT / ACCESS DOOR

Located mid-body the driver side, below the fridge vent, this vent gives you access to the exterior working components of the water heater.

During regular use the OFF/ON switch can be left in the ON position; the water heater will only come on when hot water is being used or when the water is being recirculated in comfort mode. Turn the water heater OFF when the motorhome is in storage.

**NOTE:** Keep this vent clear from all obstructions.



## EXTERIOR SHOWER

Located beside the vehicle fuel fill door, this compartment contains a retractable shower head and hot and cold water taps. When winterizing your motorhome be sure to winterize this tap and the shower hose.



## FRIDGE VENTS

Located mid-body on the driver side of the vehicle, these fridge vent covers house the back side of the fridge, its electrical connections and propane system. Keep these vents free and clear from debris.



## FRESH WATER HOLDING TANK FILL

Located behind the passenger sliding door, this compartment allows you to fill the fresh water holding tank. It also contains the vent tube for your fresh water holding tank.



## FURNACE VENT

Located in front of the driver side rear wheel next to the water heater, this vent gives off the exhaust of the furnace.

**NOTE:** Ensure this vent is free and clear of obstructions at all times.



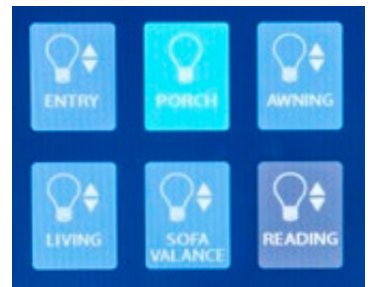
## EXTERIOR 110-VOLT PLUG

Located on the passenger side panel behind the rear wheel, this plug will only function if power is supplied through the inverter, generator or shore power. This plug is controlled by the GFCI on the driver side ottoman.



## PORCH LIGHT

Located above the side entry door. Control for the porch light is on the touchscreen control panel. Select the PORCH light button to toggle ON or OFF. This button can be on the HOME screen and/or the LIGHTING page.



## POWER AWNING

Please refer to the manufacturer's operating instructions for further information.

The awning is located on the passenger side of the roof, this is a 13 foot Fiamma electric awning controlled by the switches located on the touchscreen control panel. The 12 volt battery disconnect switch must be in the ON position to operate the awning. Select the mechanical symbol at the bottom of the touchscreen control panel. Press and hold the EXTEND button to extend the awning. Press and hold the RETRACT button to retract the awning. The awning is a legless self-supporting awning with a seismic sensor that will automatically retract the awning in windy conditions.

The awning is equipped with a LED light strip located on the extension rail of the awning. This light strip is controlled on the lighting page of the touchscreen control panel.

**CAUTION:** *Never leave the awning extended when you are away from your motor home. The seismic sensor will react to windy conditions, however a sudden large gust of wind may not trigger the awnings retract feature before damage occurs.*

**NOTE:** *The awning will not operate if the vehicle ignition is in the on position.*

## AIR CONDITIONER

Your vehicle is equipped with the 11,000 BTU low profile Dometic air conditioner. The controls for the air conditioner are located on the HOME page touchscreen control panels.

(for more information see page 48)

## SOLAR PANEL PACKAGE

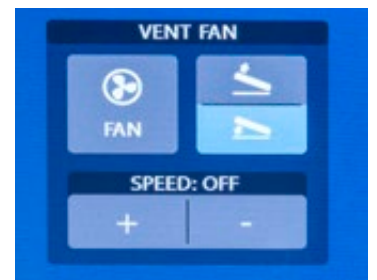
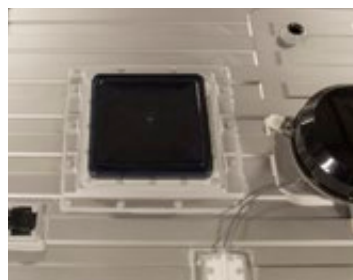
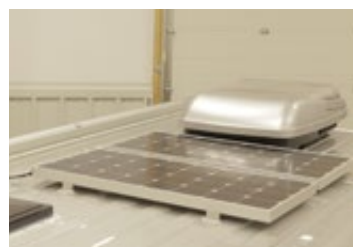
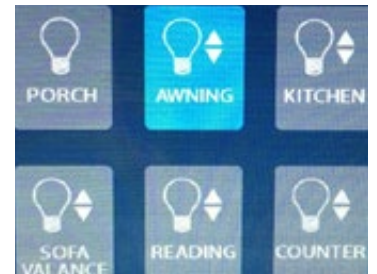
Your vehicle can be equipped with 95 to 285 watt Carmanah solar panels. The solar panels are located over the driver's door and behind the rooftop AC unit.

(for more information see page 47)

## FAN-TASTIC VENT® FAN

This fan's vent is located on the roof-top near the shower skylight and close to the bathroom door, in the kitchen area of the interior. The controls for the fan are located on the mechanical page of the touchscreen control panel.

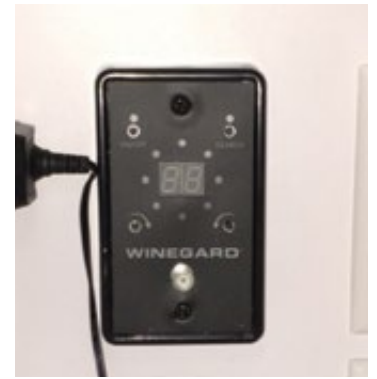
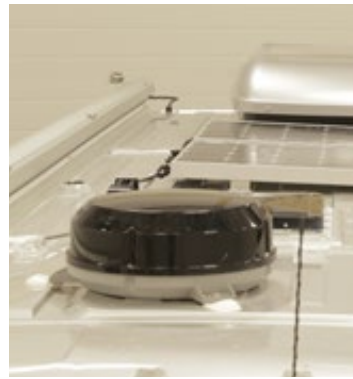
(for more information see page 49)



## TV ANTENNA

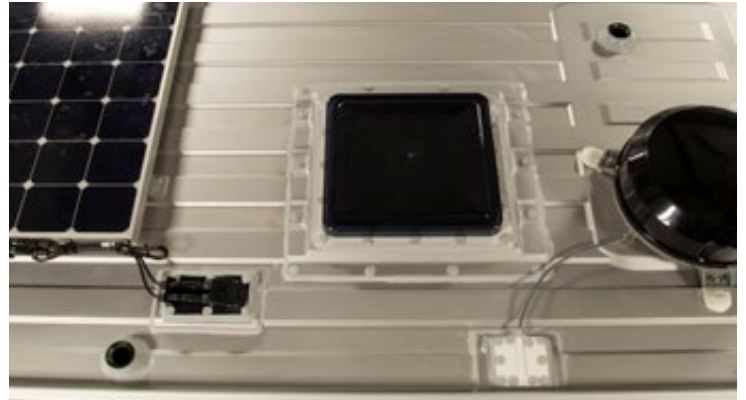
Located beside the awning on the passenger side near the front of the rooftop. The antenna is a dome style antenna designed to receive digital signals. The antenna control is located inside the cabinet above the Blu-ray player, it features a search option for bringing in the best reception possible. Antenna should remain off if you are connected to park cable.

(for more information see page 49)



## NON-CAPPED SEWER VENT PIPES

These vent stacks are sealed and connected directly to the black and gray water tanks. Located on the passenger side above the kitchen and on the driver side above the bathroom.



## MAINTAINING YOUR MOTORHOME

It is recommended that you regularly maintain your Pleasure-Way Motorhome in order to get the maximum benefits from your unit. The life and performance of each component depends upon proper use, operation and maintenance. With a regular maintenance schedule you should be able to identify any components that may need attention, allowing you to have many years and miles of trouble-free traveling.

**NOTE:** Please refer to your Ram ProMaster owner's manual for chassis mechanical maintenance.

### HELPFUL HINTS

To maintain your exterior painted fiberglass and metal surfaces we suggest you thoroughly clean and wax these pieces regularly. All fiberglass surfaces are painted with automotive paint.

When storing your Pleasure-Way motorhome it is recommended that you park the vehicle on a level surface. Avoid parking in a front end down position as rain or snow may collect in the air conditioner area, allowing moisture to enter the vehicle through the air conditioner. Damage to the motorhome as a result of incorrect parking will not be covered under warranty.

When storing your Pleasure-Way motorhome, ensure all holding tanks are emptied and flushed, the water system is completely drained, including the water heater, the LP gas valve is turned off, the 12 volt battery disconnect is switched to the OFF position, and all electrical appliances are turned off.

When storing your Pleasure-Way motorhome it is recommended that you run your vehicle engine once a month to allow the engine starting battery to recharge and the vehicle fluids to flow through the engine. Please refer to your vehicle operation manual for more details.

It is recommended that you run your generator (if equipped) for hour under load each month. This will allow the system to maintain fresh fuel, the engine to be lubricated and the electronic components to avoid corrosive build up.



## ULTRALEATHER CLEANING AND CARE

(Information taken from the Ultrafabrics website.)

Our fabrics are engineered to be long-lasting, with surfaces that maintain their top-quality look and feel long after application. To keep any of our materials looking their best, we do recommend regular care and cleaning, especially to keep dirt from accumulating. Below is a general outline to help keep your fabrics looking their best.

### TIPS

- Clean with soap and water or alcohol based cleaners
- Sanitize using 1:5 bleach/water solution, hydrogen peroxide based, or quaternary-based disinfectants\*
- For stubborn stains, wipe the stain off with isopropyl (rubbing alcohol) as soon as possible
- Rinse all solution residue with water

### INDOOR/OUTDOOR FABRIC CARE INSTRUCTIONS

(Information taken from the Ultrafabrics website.)

- All our Indoor/Outdoor products should be stored in a dry, well-ventilated area
- Our mildew resistant surfaces do not promote mildew growth, however, mildew may grow on dirt and other foreign substances that are not removed from the fabric
- The frequency of cleaning will vary greatly depending upon the local outdoor environment in which the product is used
- Cushions should not remain wet or be covered, as this will increase the chances of mildew growth occurring
- All of our High UV products perform best when they are paired with an open cell, reticulated, quick drying foam and/or a waterproof, anti-mildew barrier between the fabric and foam and utilize air vents and/or a mesh, open weave fabric bottom



### ULTRALEATHER PRO STAIN CARE

Restaurant & Food Service	Ketchup, Mayo, Mustard,** Coffee, Red Wine, Tea
Healthcare	Blood, Urine, Betadine
Contract & High Traffic Areas	Ballpoint Pen Ink**

Clean with soap and water, or alcohol-based cleaners

*This information is not a guarantee. Please use all cleaning and disinfecting agents safely and as instructed.*

*For tough stains, clean using isopropyl/rubbing alcohol. Rinse surface with water and dry. Prompt attention is important for successful removal of any stain.*

A variety of clothing and accessories may contain dyes that could transfer to lighter colors, depending upon variations in temperature and humidity. Dye transfer is difficult to control, not always fully preventable, and may be irreversible.

# TRAVEL PREPARATION

## BEFORE YOU LEAVE

Prior to heading off on your adventures, you should always check to ensure that:

- The LP gas is off at the main valve switch
- All black and gray waste water tanks are empty, with the dump handles closed
- All electrical cords and exterior hoses are stored back into their respective compartments
- Chassis fluid levels are at recommended levels
- Chassis tire pressures are at recommended levels
- Chassis exterior lighting is functional
- All exterior components are secure and closed
- All interior doors and drawers are closed and locked into position
- All interior components are secure and in place
- The furnace control switch on the thermostat is off
- The TV swing-out is locked into the stow position
- The shower door is in the locked position
- The skylights and vents are in a closed & locked position
- All cabinet doors are closed
- The driver and passenger cab seats are in the forward facing, locked position
- The campsite is left in better condition than when you arrived

## WHILE IN MOTION

While in motion, set refrigerator to operate in DC mode. Use of any other appliance is not recommended while the motorhome is in motion.

- Always wear your seat belt when the vehicle is in motion.
- Only forward facing seats are equipped with seat belts.
- There are only four designated seating areas with seat belts that are safe to use while the vehicle is in motion.
- Ensure the power sofa is in the full upright position when using the rear seating locations.

**WARNING:** *Do not use LP appliances while the vehicle is in motion.*

## UPON ARRIVAL AT YOUR SITE

Once you arrive at a site:

- Ensure your motorhome is parked in a level position so that your components will work at optimum performance (place a bubble level in the freezer shelf of the refrigerator to use as a base and level your unit accordingly).
- Ensure all exterior vents are clear from obstructions.
- Ensure the black and gray water waste tank valves are closed.
- Hook up your 110 volt power cord to your coach and then to the site receptacle (if supplied at site). A surge protector is recommended.
- Hook up your fresh water line to the city water pressure connection (if supplied at site), it is recommended for pressurized city water that you use a pressure regulator.
- Turn the LP gas on.
- Turn the refrigerator switch power to the LP gas selection or 110 volt power (AC).
- Turn the water heater on.
- Connect park cable (if supplied).



# MOTORHOME SYSTEMS

## LIQUID PROPANE GAS SYSTEM

*LP appliances are: Fridge, Cooktop, Water Heater and Furnace*

Your motorhome is equipped with a Liquid Propane (LP) gas system that provides a fuel source to the appliances which are designed to use this gas for operation. The storage tank is located under the chassis between the hitch rails. Access to the LP tank and regulator is found under the vehicle. The regulator is on the passenger side propane tank bracket.

An LP gas regulator must always be installed with the diaphragm vent facing downward. Regulators that are not in compartments have been equipped with a protective cover. Make sure that the regulator vent faces downward and that the cover is kept in place to minimize vent blockage that could result in excessive gas pressure, causing fire or explosion. The main propane shut-off switch is located in the driver side utility center.

The propane fill, breather valve and BBQ quick connect are located on the driver side rear, exterior corner of the vehicle. The breather valve must be open to fill the propane tank. Liquid will appear through the breather valve when the tank is 80% full. The propane gage is located inside your coach on the touchscreen control panels. The panel will indicate full or 100% when the LP tank is 80% full.

**NOTE:** *Your LP gas appliances may not light on the first try. There may be air in the LP gas lines that will dissipate as the gas pressurizes the lines.*

### IF YOU SMELL GAS:

1. *Extinguish any open flames, pilot lights and all smoking materials*
2. *Do not touch any electrical switches*
3. *Shut off the gas supply at the tank valve or gas supply connection*
4. *Open all the doors and other ventilating openings*
5. *Leave the area until the odor clears and you are sure there is no further risk to you or others*
6. *Have the gas system checked and leakage source corrected before using again*



**WARNING:** *Do not bring or store LP gas containers, gasoline or other flammable liquids inside the vehicle because a fire or explosion may result. LP gas containers are equipped with safety devices that relieve excessive pressure by discharging gas into the atmosphere.*

**WARNING:** *It is not safe to use cooking appliances for comfort heating. Cooking appliances need fresh air for safe operation. Unlike homes, the amount of oxygen supply in the unit is limited due to the size of the vehicle. Proper ventilation when using the cooking appliance(s) will avoid the dangers of asphyxiation, explosion and CO poisoning.*

**WARNING:** *Do not use portable fuel burning equipment, including wood and charcoal grills and stoves inside the motorhome. The use of this equipment inside the recreational vehicle may cause fire or asphyxiation.*

**WARNING:** *Do not place the cooktop cover on the stove when the cooktop is lit, or when the burner knobs are in the ON position. Allow the cooktop to cool before closing the glass cover.*

## LP FILL VALVE & LP BLEEDER VALVE

The bleeder valve allows pressure to vacate the LP tank when 80% full. The fill valve, is covered by the yellow end cap.

Only fill the LP tank to 80% capacity, liquid will appear from the breather valve at 80%.

**WARNING: DO NOT FILL LP CONTAINER TO MORE THAN 80% CAPACITY. Overfilling the LP gas container can result in uncontrolled gas flow, which can cause a fire or explosion. A properly filled container will contain approximately 80% of its volume of LP gas.**

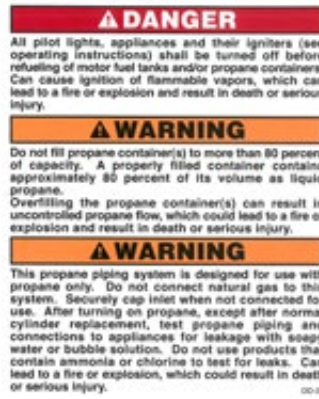
## BBQ QUICK CONNECT

The BBQ quick connect is directly connected to the RV LP system. It is equipped with its own shut-off valve (black handle). The quick connect is a regulated (low pressure) LP line that is supplied from the onboard LP tank. The BBQ quick connect works with the standard, full-flow male quick connect fitting. You will need a BBQ that is set-up for a low pressure LP source.

### BASIC OPERATION:

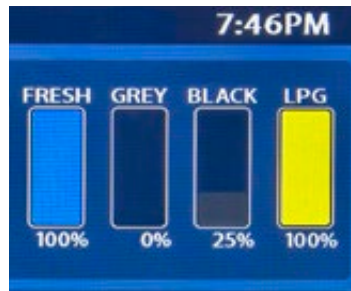
1. Ensure the black valve is in the OFF position.
2. Remove the yellow cap and ensure the opening is clean.
3. Pull the sleeve of quick connect back and insert the male quick connect fitting.
4. Push the male fitting until the sleeve snaps forward, locking the fitting into the socket.
5. Connect your BBQ.
6. Turn the black valve ON to allow propane to flow to the connected BBQ.
7. Ensure the main LP switch in the Utility Center is ON.

**NOTE:** Propane will only flow from the BBQ quick connect when there is a hose connected. This is a safety feature of this component. The black valve must be in the OFF position to release the hose from the quick connect.



## LP TANK GAUGE

This gauge indicates how full the LP tank is. The LP gauge is located on the tank with a sending unit that sends levels to the touchscreen control panels.



## HOW TO USE THE LP APPLIANCES

Turn ON the 12 volt battery disconnect switch.  
(located below the entrance touchscreen control panel)

Turn ON the LP electric valve.  
(located in the driver side utility center)



## COOKTOP

Please refer to the manufacturer's operating instructions for further information.

The vehicle is equipped with a two-burner flush mount cooktop located in the kitchen counter top.

1. Lift the glass cover.
2. Turn the selected burner knob to ignite (flame) position and hold the button in. This allows propane to flow to the selected burner. Hold the button for a couple of seconds before pressing the igniter.
3. Depress the middle ignition spark knob several times until the burner ignites.
4. Turn the burner knob to adjust the flame to the appropriate heat setting.
5. When you have finished using the cook top, turn the burner knob to the OFF position to allow the burner to cool before closing the cook top cover.



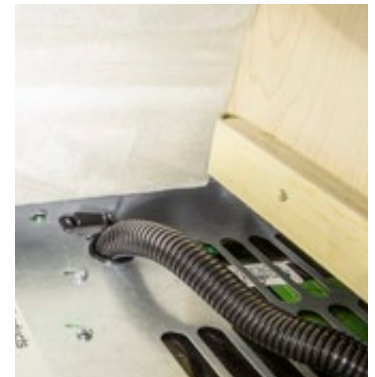
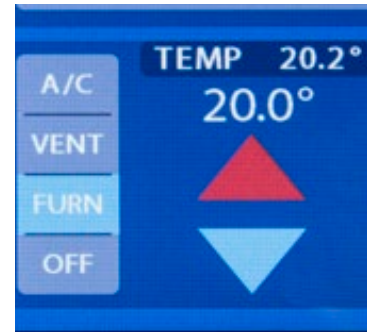
## FURNACE

Please refer to the manufacturer's operating instructions for further information.

Your vehicle is equipped with a 16,000 BTU Atwood LP gas Auto Ignition Furnace. The furnace is located near the floor below the fridge. The thermostat control is located on the touchscreen control panels.

1. Ensure that there is propane supplied to the coach.
2. Ensure there is 12V power to the coach.
3. Select the FURN button on the touchscreen control panel and set the desired temperature.
4. The furnace fan will come on, the furnace will auto ignite and cycle through the fan and heating process. The furnace will maintain the desired temperature.
5. The furnace RESET button is located under the driver side ottoman cushion, below the furnace cover.

**NOTE:** The A/C fan may come on when the furnace engages. Set the thermostat in the FAN MODE to AUTOMATIC in order to prevent this from happening.



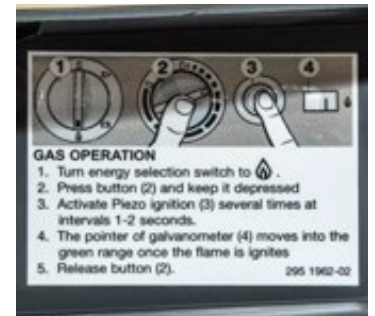
## REFRIGERATOR

Please refer to the manufacturer's operating instructions for further information.

Your vehicle is equipped with a Dometic three way fridge/freezer (LP gas, AC & DC).

1. To turn the fridge on, use the mode dial to select your power source (AC, Gas, DC), then select your desired level of coolness (this may vary slightly with each fridge and weather condition).
2. DC or 12 volt is used for the fridge and should only be used while the vehicle is in motion or for short stops less than 3 hours.
3. The propane is manually lit. (Follow the Dometic instructions located inside the fridge door).
4. The fridge is equipped with a travel and storage lock.

**NOTE:** For the best cooling results your vehicle should be level and the exterior refrigerator vents free from obstructions.



## WATER HEATER

Please refer to the manufacturer's operating instructions for further information.

### TRUMA AQUAGO® COMFORT PLUS (DLE60CP)

The water heater is located under the fridge next to the furnace vent. You will have to remove the access panel to inspect water lines or adjust bypass valves. Access to the working mechanism of the water heater is through the outside, vent door located mid-body on the driver side.

The Truma AquaGo® Comfort Plus water heater is a hybrid water heater that combines the instant hot water source with a 1/3 US gal water tank, and a recirculation system to provides a continuous flow of hot water.

### BASIC OPERATION

1. Turn on the 12 volt battery disconnect switch.
2. Turn on the LP gas switch.
3. Turn on the water heater switch inside the exterior water heater door.
4. Turn the water heater switch to ECO mode or COMFORT mode (see the Truma manual to determine which is right for you).
5. Start the water flow on hot at a medium flow and adjust to the desired temperature.

### WATER HEATER BYPASS VALVES

**OPEN:** the handle is parallel to the water line.

**CLOSED:** the handle is 90 degrees to the water line.

#### SUMMER MODE

OPEN the bypass valve on the red line (hot water), blue line (cold water) and white line (circulation).

CLOSE the bypass valve that connects the blue line from the bottom to the red line from the top.

#### WINTER MODE

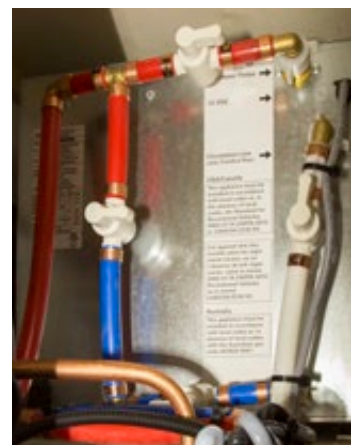
CLOSE the bypass valve on the red line (hot water), blue line (cold water) and white line (circulation).

OPEN the bypass valve that connects the blue line from the bottom to the red line from the top.

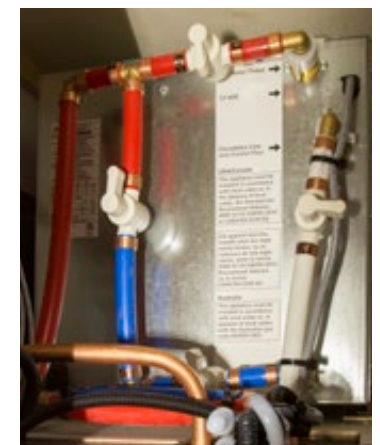
**NOTE:** See the winterizing instructions in this manual for winter storage information.



SUMMER MODE



WINTER MODE



## FRESH WATER SYSTEM

The water system built into your motorhome provides full service similar to the system in your home. A 12-Volt self-priming pump draws pressurized water from the fresh water tank to all cold faucets and the water heater. An automatic pressure switch located in the water pump maintains a positive line pressure between 20 to 30 psi. The fresh and gray water tanks are located underneath the floor of the vehicle. The black water tank is located above the floor directly under the toilet.



## FRESH WATER FILL AND DRAIN

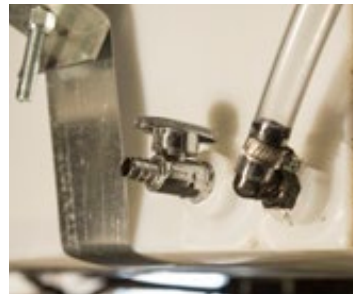
To fill the fresh water tank, use the gravity water fill located on the passenger side of the van beside the sliding door. First, unlock the water fill compartment and remove the large cap; then place the water hose into the fill. Turn on the water to medium flow. There are two ways of knowing when your water tank is full: (1) by checking the monitor panel located inside your coach; (2) when water flows back through the gravity fill.



**NOTE:** *If you notice water running out from underneath the van, check the drain tap located on the side of the fresh water tank to ensure the valve is closed. This tap is there to help you drain your fresh water tank.*

## FRESH WATER SYSTEM DRAINS

The fresh water, tank drain is located under the passenger side running board, just under the sliding door. This drain is connected directly to your fresh water tank and will allow you to drain the fresh water tank when the vehicle is not in use. The vehicle is also equipped with low point drain valves. These valves will allow you to drain all the fresh water lines in the vehicle. The low point drains are located below the passenger side running board near the fresh water tank. To use these drains ensure all water taps and the toilet valve are in an open position.



## WASTE SYSTEM

The Pleasure-Way Lexor is equipped with two waste tanks:

A **black water tank** is located below the toilet and above the floor of the vehicle. Only the toilet water and solid waste enter this tank. This tank is approximately 12 US gal / 45 L.

A **gray water tank** is located on the driver side of the vehicle. This tank holds wastewater from the sinks and the shower. This tank is approximately 20 US gal / 75 L.



## DRAINING THE WASTE HOLDING TANKS

1. Open the sewer compartment door on the driver side. This will expose the sewer dump outlet. Press in the black and gray dump valve handles to ensure the valves are closed. Remove the black termination cap.
2. Locate the sewer hose in its compartment under the running board, next to the dump outlet. Connect the sewer hose to the drain outlet, and put the opposite end into an appropriate sewer dump outlet.

**NOTE:** *Dump your black water first to allow your gray water to flush the black water through the hose.*

3. Open the termination valve on the black water holding tank (black handle). Once this tank is empty, open the valve for the gray water holding tank (gray handle). A garden hose may be left running into the toilet with the valve open to further rinse the tank and sewer hose.
4. Close the termination valves and replace the cap. Rinse and replace your sewer hose back in its compartment.
5. Deodorize the empty tank by adding one US gal of water mixed with commercial holding tank deodorizer to the tank.

**NOTE:** *If the black water holding tank is allowed to overflow, the overflow may back up through the toilet drain. If the gray water tank is allowed to overflow, the overflow may back up through the shower drain.*

**NOTE:** *If you are using a sewer hookup in a RV park, keep the valve closed until the holding tank is at least partially full, then drain. The large quantity of waste flow will provide more effective drainage and reduce tank stoppages.*

**NOTE:** *Before using your black water holding tank, deodorize it by adding one US gal of water mixed with commercial tank deodorizer through the toilet.*



## CITY WATER CONNECTION

The city water connection is located in the driver side utility center. The city water connection is a convenience for you when you have access to an outside, pressurized water source. The city water system bypasses the fresh water holding tank and feeds the water lines directly so that you will not have to use the water pump. When hooking up the city water connection you should make sure that the water pump switch is turned OFF and that all water faucets are CLOSED.

1. Open the driver side utility center.
2. Remove the insert from the city water connection
3. Attach a garden hose to the connection using a rubber washer to ensure the fitting is tight.
4. Turn the water source on to medium pressure.
5. Check for leaks at the city water connection, as you may have to re-tighten this connection.

To disconnect the city water system, first turn off the water source, then open a faucet to relieve some of the pressure in the lines, and then unhook the water line.

## WATER PUMP AND TROUBLE SHOOTING

Located in the cabinet below the kitchen sink. The water pump has a removable filter that should be checked regularly.

*The inline flow filter is located on the inlet side of the water pump. If the pump will not prime, ensure:*

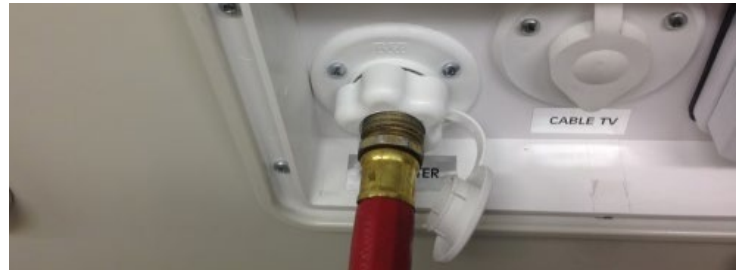
- there is water in the holding tank
- that the battery is not run down
- the water lines are tightly connected to the pump and to the filter
- there are no leaks at the inlet fitting and filter (if air is leaking into inlet fittings, tighten fittings or apply clamps as necessary)
- the inline flow filter is clean

*If the water pressure drops, ensure that:*

- the faucet aerators are clean
- there is water in the holding tank
- the battery is not run down
- the faucets and connections are free of leaks

*If the pump runs when there is no apparent demand for water, ensure that:*

- there is water in the holding tank
- all faucets and fixtures are shut off and not leaking
- the water lines are free of leaks



**NOTE:** It is advisable to use a water pressure regulator because excessive pressure may result in water line damage.





## **KITCHEN FAUCET** Dehco: 82H09-CHRG

With the faucet handle turned off, the faucet may continue to drip for a short period of time or when the vehicle is motion. Water is retained in the faucet spout.



## **TOILET**

Please refer to the manufacturer's operating instructions for further information.

### **Toilet Troubleshooting**

#### *If water keeps running in the bowl:*

- Check to see if the foot lever is all the way up. Sticking may be caused by foreign material on the waste valve blade seal at the bottom of the toilet bowl. If the problem persists, you may need to replace the water valve.



#### *If the toilet leaks and there is water on the floor:*

- If the leak is at the back of the toilet, check the water supply line connection and refer to the manufacturer's installation instructions.
- If the leak is at the toilet flange area (where the toilet mounts to the floor), check the toilet flange nuts and tighten them if necessary.



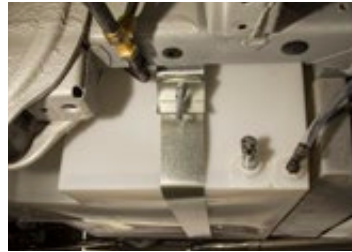
#### *Poor flush pressure:*

- The lever must be held fully down during the flush. An adequate flush should be obtained within 2 to 3 seconds.
- If the problem persists, remove the water supply line and check the water supply. The water supply rate should be at least 10 litres/2.5 US gal per minute to ensure an adequate flush.

# WINTERIZING

## WINTERIZING THE WATER SYSTEM

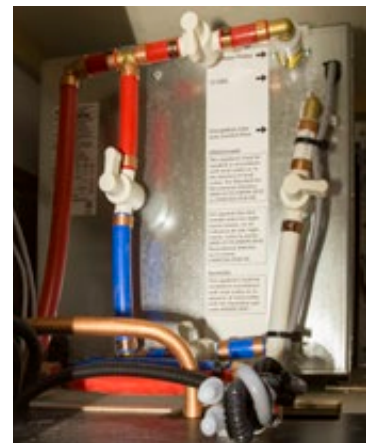
1. Drain the fresh water tank by opening the drain tap on the fresh water tank.
2. Drain and flush the black and grey water holding tanks.



3. Open the interior access panel under the fridge to access the back of the Truma water heater and the bypass valves.
4. Turn the bypass valves on the top red line, bottom blue line and the white center line to the closed position. (The handle is closed when it is turned 90 degrees to the water line.)



Open the valve that is located where the blue line coming up from the bottom and the red line coming down from the top are connected.



5. Open the exterior door to the Truma water heater. Turn the electrical switch to the OFF position. Open the water heater drain by lifting the black latch on the top of the yellow easy drain lever. Lower the drain lever until the water filter opens.



6. With the filter removed, inspect and clean the water filter. Inspect the "O" rings on the filter as found on page 16 of the Truma water heater manual. Remove the filter for winter.

**NOTE:** It is advised that you follow the Truma recommendations for de-calcification of the water heater. These instructions can be found on page 17-21 of the Truma water heater manual



7. Remove the water line from the inlet side of the water pump (this is the clear, plastic line going into the water pump filter). Connect a siphon hose to the inlet side of the water pump and place the other end in a container of non-toxic, RV antifreeze. Turn on the pump. This will pump non-toxic, RV antifreeze through all of your fresh water lines.

**NOTE:** Siphon hose consists of 40" of ½" clear tubing with a fitting to attach to the water pump. The fitting can be purchased through an RV dealer.

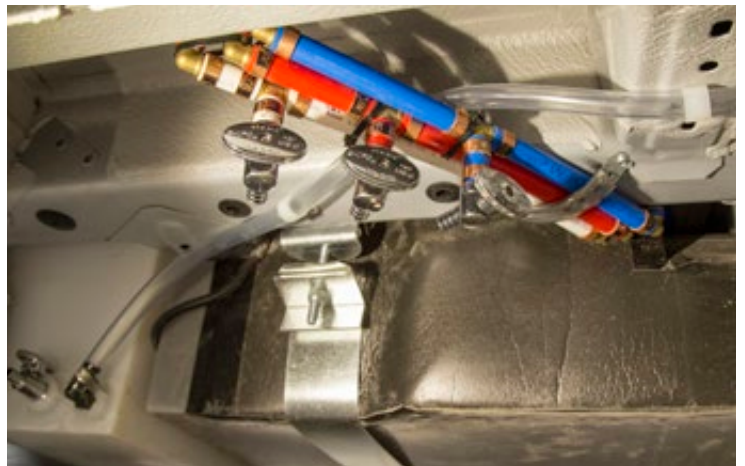
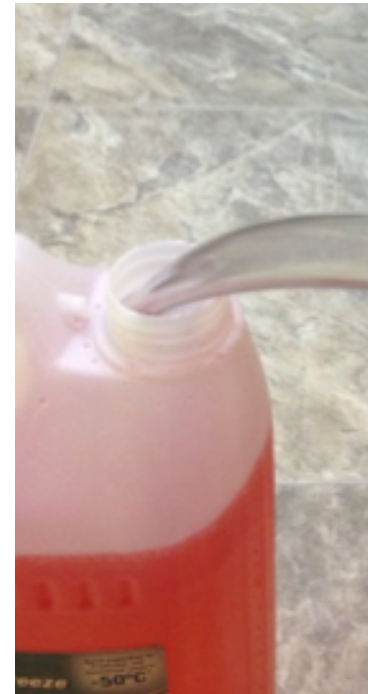
8. Open the kitchen, exterior shower and bathroom faucet one at a time allowing the antifreeze to flow through both the hot and the cold sides. Open the toilet valve and allow antifreeze to flow into the toilet bowl. Turn off the water pump and disconnect the siphon hose. Reattach the original fresh water supply fitting.
9. Pour ½ cup of non-toxic, RV antifreeze down each drain (kitchen sink, bathroom sink and shower drain).
10. Open the low point drain valve on the white water line for water heater recirculation. The low point drains are located above the fresh water tank drain.
11. Open your grey and black water tank valves one last time to ensure all water from the holding tanks is completely drained. Once drained, close your grey and black tank valves for winter.

### **OPTIONAL WINTERIZING FOR MILD CLIMATES**

Ensure the water filter for the Truma water heater is removed for winter.

*Follow steps above #1-6*

7. Open all three low point drain valves in the location listed above.
8. Connect a blowout valve to the city water inlet. Connect a compressed air source.
9. Open each tap (bathroom, kitchen, exterior shower, and toilet) both hot and cold. Allow the air to blow the remaining water out of the taps and valves. Fully drain the system. Leave all taps, the toilet valve and drain valves in an open position.
10. Pour ½ cup of non-toxic, RV antifreeze down each drain.



## WINTER STORAGE ELECTRICAL

1. Fully charge the engine starting and coach batteries.
  2. Turn OFF the charge line disconnect switch (red key).
  3. Turn OFF the 12 volt battery disconnect switch on the bottom of the entrance touchscreen control panel.
- It is recommended that you start and run your vehicle for a short period of time each month.
  - It is recommended that you start and run your generator under load for at least a half hour per month. If the interior of the coach is below freezing, you must warm the inside up to bring the temperature of the interior batteries above freezing before exercising the generator. Opening the battery box door will help the batteries warm up faster.
  - It is recommended that the fridge door be left slightly open to allow air to circulate through the fridge cabinet during a storage period.
  - It is recommended that the vehicle be driven or moved forward or backward, if possible, to avoid flat spotting of the vehicle tires.
  - The lithium batteries should not be charged if the interior of the coach is below freezing (32 F or 0 c)



## WINTER USE

We recommend that the water system not be used when the outside temperature drops below the freezing point. You should ensure that your unit is completely winterized by that time. If it is necessary to use the water system, we suggest that you bring containers of fresh water with you and add non-toxic, RV antifreeze to the gray and black water holding tanks.

**NOTE:** *Keep in mind that as you add more water to the holding tanks the antifreeze will dilute beyond the recommended amount and may start to freeze earlier at cold temperatures. Do not use the exterior shower.*

## LIVING AREA ELECTRICAL SYSTEM

The motorhome living area electrical system is designed for convenience. It is capable of supplying the vehicle with at least two sources of power: 12 volt DC power and 110-120 volt AC power. The 12 volt coach batteries supplies power to the interior components (except the roof air conditioner and fridge while set on AC ) for short-term use. The 12 volt or DC power supplies an AC 110-120 volt current to the interior plug outlets, the entertainment centers and the microwave through the 2000 watt Pure-sine wave inverter.

The coach battery bank is charged when the chassis engine is running the charge line disconnect switch is in the ON position or when you are connected to a 110-120 volt power source (shore power or generator) with the 12 volt battery disconnect switch in the ON position. Your vehicle may also be equipped with solar panels. These solar panels will charge the coach batteries if the charge line disconnect is in the ON position.

For long term use, your vehicle may be powered by plugging into a 110-120 volt external power source with the supplied 25 foot power cable. The 25 foot power cable supplied with your coach must be connected and locked to your coach and then to a 110-120 volt power source (a 30 amp outlet is recommended). This will supply 110-120 volt power throughout the interior and supply power through the inverter/charger to all 12 volt components. Do not run the air conditioner unless you are plugged into a minimum 20 amp power source.

Your motorhome is equipped with a Pure-sine wave 2000 watt Xantrex Freedom XC Inverter/Charger. The charging portion of the Freedom XC is set to LFP to charge the coach batteries. The freedom XC also converts 110 volt into 12 volt to operate 12 volt appliances when plugged into 110-120 volt power or while running the generator.

The Pure-sine wave inverter/charger takes the 12 volt or DC power from your batteries and inverts it up to 110-120 volt AC power. The inverter will enable you to use your 110-120 volt plug outlets, entertainment center and microwave oven when a shore power source or generator source is unavailable. This power source will be limited by the state of charge of your batteries and by the amount of current drawn by each appliance. The inverter has a built in transfer switch that allows the 110-120 volt power to bypass the inverter and power the 110-120 volt plug outlets, entertainment center and microwave directly, when the motorhome is plugged into a shore power source or running on the generator.

### 110-120 VOLT OR AC EQUIPMENT

TV, Blu-ray player & soundbar when on a generator or shore power source
---

110 volt plugs when on a generator or shore power source
--

Microwave when on a generator or shore power source
---

Refrigerator on AC
--------------------

Air conditioner
-----------------

### 12 VOLT OR DC EQUIPMENT

Touchscreen control panel
---------------------------

Inverter
----------

Solar controller
------------------

USB plugs
-----------

Refrigerator when on LP or DC
-------------------------------

Water heater
--------------

Furnace
---------

Water pump
------------

Interior and exterior coach lights
------------------------------------

TV antenna
------------

LP / CO detector
------------------

Generator start
-----------------

Power sofa
------------

Fan-Tastic® Vent Fan
----------------------

Power awning
--------------

**NOTE:** All dash components including the in-dash radio and front map lights are powered through the starting (chassis) battery. Prolonged use of these items when the vehicle is not running will deplete the engine starting battery.

## AC 110-120 VOLT POWER

The 25 foot, 30 amp power cord is provided with your vehicle. To activate all power circuits, connect and lock the power cord to your coach in the driver side utility center and to an adequate 110-120 volt power source. The power cord connections are rated for 30 amp 110-120 volts. Most RV parks are equipped with 30 amp outlets. Remember to always attach the power cord to your coach first, and then to the power source.

**NOTE:** *The male end of the power cord is a 30 amp style plug, therefore, you may require an adapter to convert the plug into a 15 amp style plug or a 50 amp style plug.*

**WARNING:** *Ensure the power source for your vehicle is a 110-120 volt power source. A higher voltage or lower voltage outlet could do damage to your coach.*

## AUTOMATIC TRANSFER SWITCH

Please refer to the manufacturer's operating instructions for further information.

The automatic transfer switch is located under the rear sofa on the passenger side, wall panel. To access the transfer switch open the passenger, rear door of the vehicle. The automatic transfer switch will only allow your coach to get power from one source; either the generator or the shore power cord. This is a safety feature of this vehicle.



**NOTE:** *Connect and lock the power cord to your coach first and then the external power source.*



## INVERTER/CHARGER

Please refer to the manufacturer's operating instructions for further information.

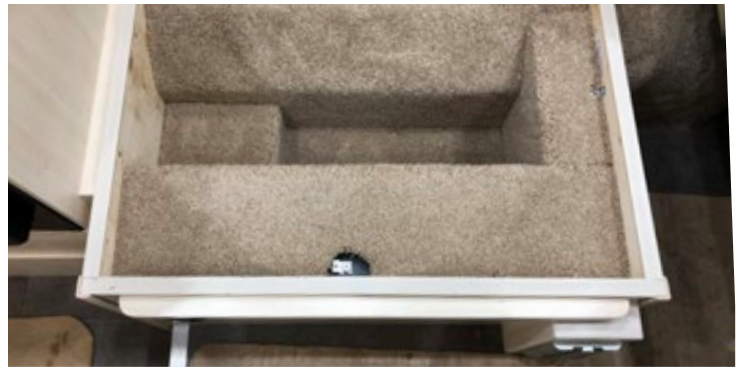
Your vehicle is equipped with the Xantrex Freedom XC 2000 watt Pure-sine wave inverter/charger located inside the passenger side ottoman cushion. The inverter/charger provides 12 volt DC power inverted to 110-120 volt AC power for the microwave, entertainment center and all AC outlets in and outside the coach.

The charging portion of the inverter is set to LFP to charge the coach batteries. The inverter also converts 110 volt into 12 volt to operate 12 volt appliances when plugged into 110/120 volt power or while running the generator.

The inverter will be limited by the state of charge of the coach batteries and amperage draw from individual appliances. A built in automatic transfer switch allows the coach to receive power from only one source, so that if you are on shore power or generator power it bypasses the inverter. The inverter will draw .6 amps of DC power if it is turned on and no load is being drawn from the inverter. If no load is on the inverter it will turn itself off after 25 hours of continual operation.

The inverter is powered by the large red wires in the battery compartment. There is also a 250 amp mega-fuse in the system to protect the inverter and the coach.

**CAUTION:** *Ensure all venting for the inverter is kept clear of blockage.*



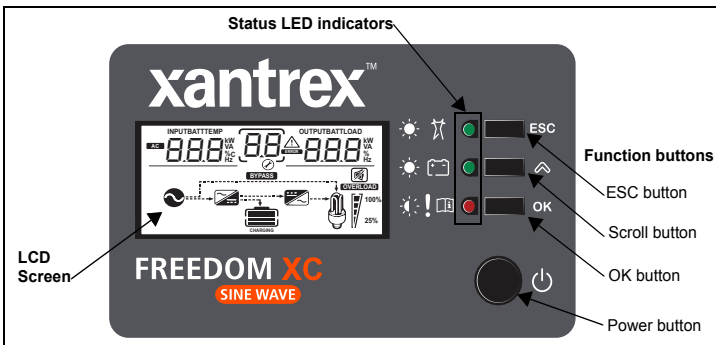
## INVERTER/DISPLAY CONTROL PANEL

This control panel is located above the sliding door below the solar panel control.



Status LED Indicators

## Freedom XC Display Panel



## Function Buttons

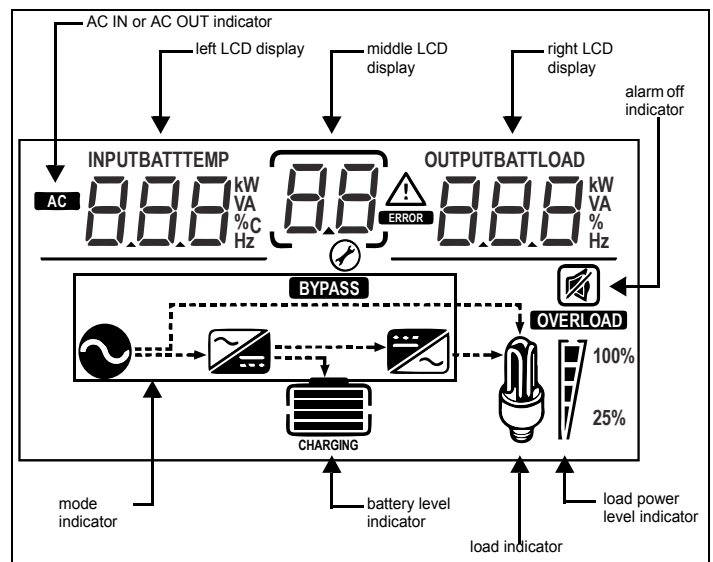
Button	Definition
	return to default screen or exit setting mode
	next screen or next selection
	to enter the setting mode or to confirm the setting
	turns on inverter/charger operation or to Standby mode

**NOTE:** To turn the inverter ON or OFF you must press and hold the power button on the inverter control panel for at least 1 second.

**NOTE:** This control panel will turn the inverter ON or OFF. The 12 volt battery disconnect switch or charge line disconnect switch do not turn the inverter ON or OFF. Always make sure the inverter is in the OFF position when not in use. The inverter can draw .6 amps from your coach batteries if left in the ON position while not in use.

Indicator	Definition
	Indicates grid mode in which shore power is available and passing through to the loads and charging the battery.
	Indicates Battery mode (Inverter mode) in which the inverter is running and supplying power to the loads from the battery.
	Indicates error or fault mode and is accompanied by an error code displayed on the LCD screen. For a list of error codes, see "Warning Messages" on page 64.
	Indicates a Warning condition and is accompanied by an error code and a sounding alarm. For a list of error codes, see "Warning Messages" on page 64.

The LCD Screen changes depending on the operating mode of the inverter.





## AC ELECTRICAL DISTRIBUTION PANEL

The Lexor is equipped with an AC distribution panel that houses the breakers for the 110-120 volt system. The distribution panel is located on the driver side ottoman bench face. The breakers act like a household breaker; you must insure the breaker is shut all the way off before you can reset the breaker.

1. 15 Amp Fridge (GFCI Protected)
2. 30 Amp Input Inverter
3. 20 Amp A/C
4. 30 Amp Shore Power
5. 30 Amp Inverter Output
6. 20 Amp Microwave (GFCI Protected)
7. 15 Amp All Receptacles (GFCI Protected)



## GFCI OUTLETS

A ground fault circuit interrupter (GFCI) 110-volt receptacle located on the lower driver side ottoman provides protection against line-to-ground electrical shock hazards that could be harmful or even fatal. The outlets that are on this circuit are the exterior, kitchen and rear bench receptacles.

The GFCI receptacle must be tested at least once a month in accordance with the manufacturer's instructions.

The GFCI for the microwave and fridge is found in the:

- TS - cabinet above the Blu-ray player*
- FL - in the closet above the closet rod.*

**NOTE:** The circuits must be powered to test or reset the GFCI. Check the GFCI for the individual appliance or plug outlets if the appliance is not operational.



## DC BREAKERS

These are resettable breakers. When a breaker is tripped a black lever will swing out below the center bar. To reset the breaker push the lever back up under the center bar. To manually trip a breaker, press the red button.

### 80 AMP BATTERY DISCONNECT BREAKER

Located next to the DC load center inside the drive side ottoman. Remove the cover panel to access. This breaker disconnects coach battery input to the DC load center.

### 80 AMP GENERATOR BREAKER

Located next to the DC load center inside the drive side ottoman. Remove the cover panel to access. This breaker will disconnect the coach battery feed to the generator for the generator starter and generator fuel pump.

### 80 AMP INPUT AND OUTPUT BREAKERS FOR THE MASTERVOLT DC-DC CHARGER

These are located on top of the coach battery box under the cover panel next to the charge line disconnect switch (red key). The 80 Amp Input breaker will disconnect the 150 amp charge line (from the alternator) to the Mastervolt DC-DC Charger. The 80 Amp Output breaker will disconnect the Mastervolt DC-DC Charger to the charge line disconnect switch as well as the coach batteries.

## DC LOAD CENTER

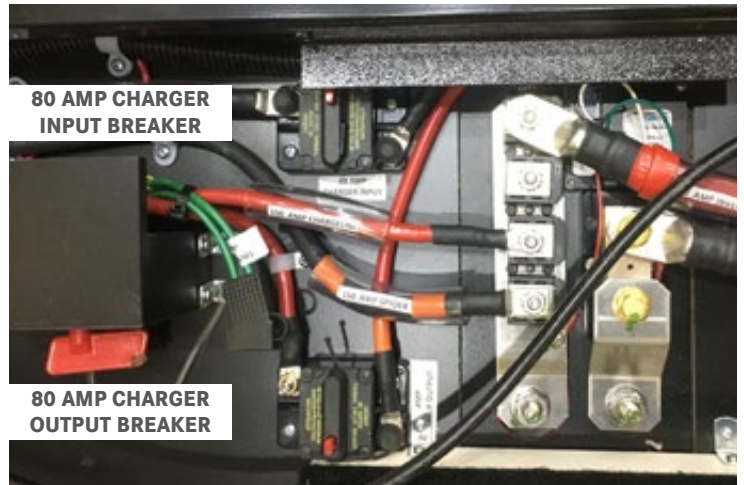
Located underneath the driver side ottoman cushion, the DC load center controls all the multiplex wiring systems and the touchscreen control panels. The load center also has resettable breakers for the various components.

Press the white or black center button to reset the breakers.



80 AMP BATTERY DISCONNECT BREAKER

80 AMP GENERATOR BREAKER



**DIMMER CARD**

CH	PINOUT	LOAD	AMPS	TYPE	NOTES
1	1-1	Living Room Lights	5	PTC Fuse	Connector 1
2	1-2	Kitchen Lights	5	PTC Fuse	Connector 1
3	1-3	Counter Lights	5	PTC Fuse	Connector 1
4	1-4	Bathroom Lights (XL)	5	PTC Fuse	Connector 1
5	2-1	Entry Lights	5	PTC Fuse	Connector 2
6	2-2	Reading Lights	5	PTC Fuse	Connector 2
7	2-3	Sofa Valance Lights	5	PTC Fuse	Connector 2
8	2-4	Vanity Light	5	PTC Fuse	Connector 2
9	3-1	Awning Lights	5	PTC Fuse	Connector 3
10	1-4		5	PTC Fuse	
11	1-5		5	PTC Fuse	
12	1-6		5	PTC Fuse	

**RSI - 9 CARD**

CH	PINOUT	LOAD	AMPS	TYPE	NOTES
25	7-1	Analog Inputs	-	-	
26	7-2	Fresh Water Gauge	-	-	Connector 7, Pin 7
27	7-3	Grey Water Gauge	-	-	Connector 7, Pin 6
28	7-4	Black Water Gauge	-	-	Connector 7, Pin 5
29	8-1	LPG Gauge	-	-	Connector 7, Pin 4
30	8-2	Tank Sensor Com. Gnd	-	-	Connector 7, Pin 3
31	8-3		-	-	
32	8-4		-	-	
33	9-1		-	-	
34	9-2	Digital Inputs	-	-	
35	9-3	Gen Running	-	-	Connector 7, Pin 2
36	9-4		-	-	

**BREAKER CARD**

CH	PINOUT	LOAD	AMPS	TYPE
37	10-1	USB Ports + Storage Light (XL)	5	Constant
38	10-2	Antenna	10	Constant
39	10-3	Power Step Contact Switch (XL)	10	Constant
40	10-4	Bathroom Lights (Except XL)	5	Constant
41	10-5	CO/LP Detector + LP Solenoid	5	Constant
42	10-6	Spare	10	Constant
43	8-3	Refrigerator	15A: ASTS, PLFL, FORD 20A: LEXTS/FL, PLXL 30A: PLTS	Constant
44	8-4	Power Step Motor (XL)	30	Constant
45	9-1	Roof Vent Fan	10	Constant
46	9-2	Awning	15	Constant
47	9-3	Water Heater	8	Constant
48	9-4	Furnace	15 (FORD: 10)	Constant

**DISCONNECT CARD**

CH	PINOUT	LOAD	AMPS	TYPE
49	14-1	Power Sofa Extend	15	PTC Fuse
50	14-2	Power Sofa Retract	15	PTC Fuse
51	14-3	Furnace Trigger (Excluding Ford)	5	PTC Fuse
52	14-4		7	PTC Fuse
53	15-1	Porch Light	7	PTC Fuse
54	15-2	Gen Start	7	PTC Fuse
55	15-3	Gen Stop	7	PTC Fuse
56	15-4	Water Pump	10	PTC Fuse

**IMPORTANT:**  
RETIGHTEN MAIN LUGS AFTER WORKING ON LOAD CENTER

## 12 VOLT BATTERY DISCONNECT SWITCH

The 12 volt battery disconnect switch is located by the main entrance door on the touchscreen control panel. The disconnect switch will stop all 12 volt power supplied to your motorhome from the coach batteries.

**NOTE:** *If your vehicle is going to be parked and not in use for longer than a 48 hour period, turn this switch to the OFF position as the LP/CO detector is hard wired into the coach batteries and will eventually drain the batteries.*



## CHARGE LINE DISCONNECT

The charge line disconnect switch (red key) is located above the battery box. Access is through the driver side rear door.

The charge line disconnect switch (red key) controls the charge from the engine alternator and solar panels to the coach batteries. When the switch is ON, the coach batteries will charge from the engine alternator and solar panels. When the switch is OFF, the coach batteries will NOT charge from the engine alternator and solar panels. This disconnect switch is used for shipping, storage and freezing conditions. This switch should be OFF during battery servicing.

**ON Position:** red key is locked into the switch

**OFF Position:** red key can be removed from the switch

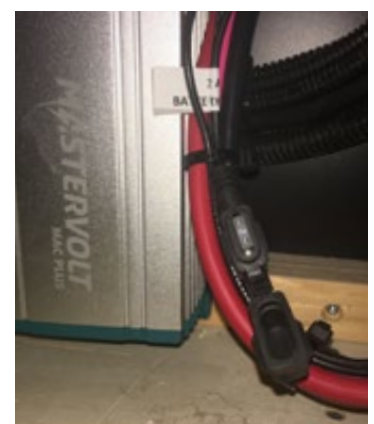
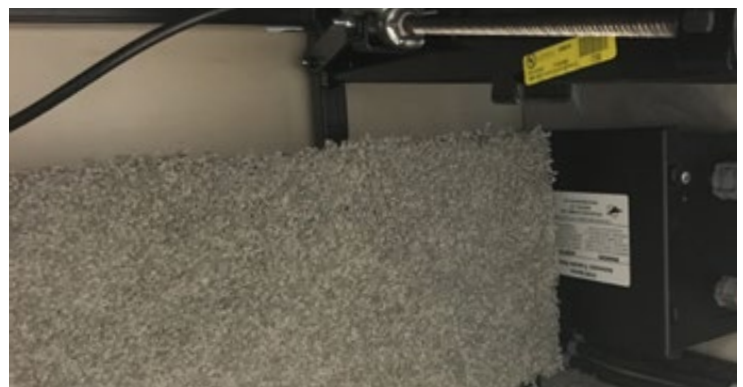


## MASTERVOLT DC-DC CHARGER

The DC-DC charger is located under the power sofa on the driver side of the battery box. Access is through the driver side rear door of the vehicle. Remove the battery cover and pull the carpet covered panel at the top near the battery box.

The DC-DC charger takes 12 volt charge from the alternator and converts it to optimal charging for the coach batteries. The DC-DC charger has a 2 amp trigger fuse located on the right hand side of the Mastervolt. The charge line breakers (80 amp charger input & 80 amp charger output) are located under the cover panel on top or the battery box next to the charge line disconnect switch.

(for more information see page 42)



## TOUCHSCREEN CONTROL PANEL

Please refer to the touchscreen control panel manual for further information.

Your motorhome is equipped with two touchscreen control panels. They are located on the kitchen end panel next to the entrance and above the entertainment center in the rear lounge/bed area. Both touchscreen control panels control the living area functions of the motor home.

The menu buttons are located at the bottom of the screen. There are four menu buttons to choose from: HOME, LIGHTS, MECHANICAL AND SETTINGS.



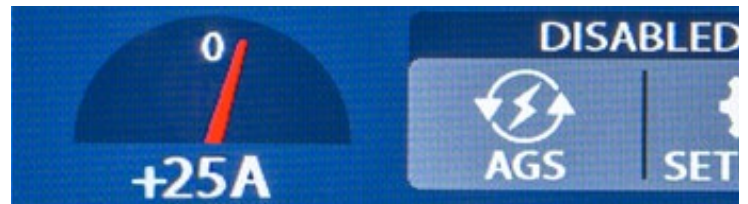
### LIGHTS

Each lighting area has its own button in the LIGHTS page. Buttons with arrows next to the light bulb icon are equipped with dimmers. Touch and hold the button to brighten or dim the light for each area.



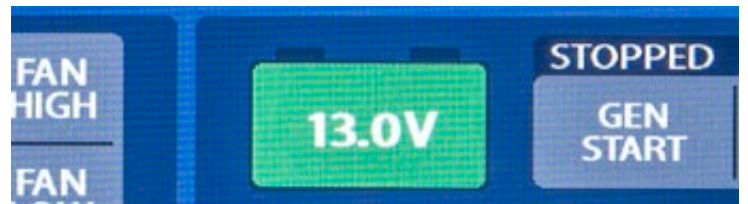
### REAL TIME LOSS/GAIN METER

This meter gives you the amperage draw of the components that you are using at any given time. It takes into consideration gain from the solar panel and other items that may be charging your batteries.



### BATTERY METER

This battery voltage is for the coach batteries, the battery voltage will vary depending on the load being draw and the state of charge. For example when the microwave is being used with the inverter the voltage will drop and then return to a normal reading once the microwave is shut off.



## TROUBLE SHOOTING THE DC/12 VOLT SYSTEM

1. Confirm that the 12 volt battery disconnect switch is in the ON position.
2. Confirm that there is 12 volt power from the coach battery (check battery voltage or start the vehicle engine).
3. Confirm that the inverter breaker is not tripped in the AC breaker panel.
4. To reset the DC load center for the coach (this includes all switches and controls), unplug the vehicle from shore power or shut off the generator. Turn off the 12 volt battery disconnect switch and allow the system to do a complete shutdown (this will only take a couple of minutes). Turn on the 12 volt battery disconnect switch and the system will be reset.



## TROUBLE SHOOTING THE AC POWER

1. Double check that you have a reliable power source to plug your power cord into. Verify that your power cord is properly attached to your motorhome. Test the outlet with another appliance.
2. Ensure that the GFCI has not been tripped. Press the TEST button and then reset the GFCI.
3. Confirm that the breakers in your distribution panel have not been tripped.

If you have power from shore power (electrical plug), but not from your generator:

4. Confirm that the breaker on the generator is not tripped.

If you have power from your generator, but not from shore power:

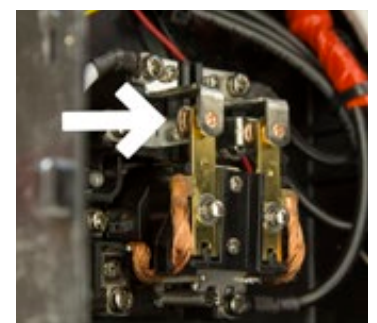
5. Check your shore power source (step 1).
6. Ensure your automatic transfer switch is snapping shut. Inside the automatic transfer switch there is a set of points that are spring loaded. On occasion these points will not make proper contact.

Two methods to see if the automatic transfer switch is working properly are:

**Method 1:** START the generator. Wait for power in your coach to be fully engaged by the generator and then STOP the generator. Now, plug your power cord into a 110-120 volt electrical outlet. You may have to repeat this method a few times. (Always ensure that you unplug your power cord before starting your generator.)

**Method 2:** STOP the generator and unplug your motorhome from shore power. Locate and open the automatic transfer switch. Move the contact points back and forth to confirm they have free movement. Check between the points for any debris.

**NOTE:** If an individual appliance is not working ensure that the appliance is plugged in, check the breaker and GFCI for the individual appliance.



## CHASSIS BATTERY

Please refer to the manufacturer's operating instructions for further information.

The chassis (engine starting) battery is located below the driver's foot board in the cab area of the vehicle. The chassis battery and coach batteries are separated by an underhood battery separator.

**NOTE:** *The chassis battery is only charged through the alternator when the engine is running. The inverter/charger will not charge the chassis battery.*

### **Battery Separator:**

A battery separator is installed to allow both the chassis and coach batteries to be charged when the engine is running, but will not allow the chassis battery to discharge when there is a demand from the living area system. The coach batteries are automatically charged whenever the vehicle engine is running and the charge line disconnect switch is in the ON position. The time required to charge the batteries will completely depend on how low they are. The coach batteries will charge at a slower rate when you are using driving lights, chassis air conditioning, etc.

The battery separator is located under the hood and requires no regular maintenance.

**NOTE:** *The chassis battery is only charged through the alternator when the engine is running.*



## COACH BATTERIES

### ECO-ION EARTH SMART LITHIUM IRON PHOSPHATE (LiFePO<sub>4</sub>) 12 volt 100 Ah

Your motorhome is equipped with two coach batteries located under the rear sofa. These Eco-Ion Earth Smart batteries consist of cells using lithium iron phosphate (LiFePO<sub>4</sub>) technology. Lithium iron phosphate battery chemistry is one of the safest on the market today. Lithium batteries are different than lead-acid batteries. A lithium batteries voltage remains relatively constant while discharging, while voltage for a lead-acid battery decreases. A lithium battery can use 100% of its storage capability (measured as Amp-Hour, Ah); while a lead-acid battery typically only uses 50%. Lithium batteries power level will not drop-off, and it will last longer. When the lithium battery runs out of power it does so abruptly.

Access to the coach batteries is through the rear doors. The batteries are located under the power sofa.

1. Remove the Eco-Ion cover panel (this panel is held by magnets).
2. Turn the thumb latches and fold down the battery door.

**WARNING:** Do not work on the batteries with the vehicle running, generator running or the vehicle plugged into shore power.

### BATTERY MANAGEMENT SYSTEM

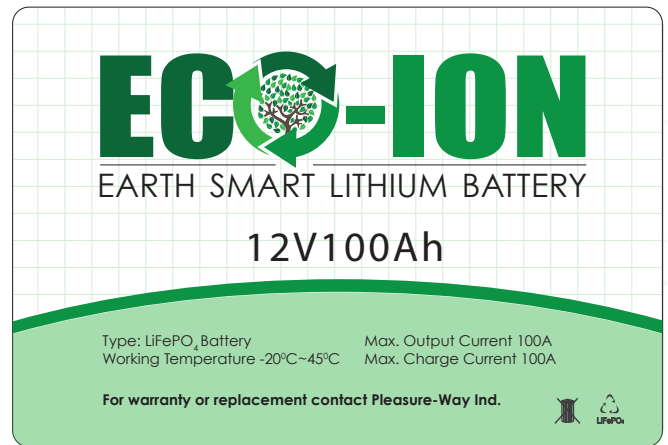
The Eco-Ion Earth Smart batteries feature a built in battery management system (BMS). The BMS automatically provides:

- Short circuit protection
- Low voltage protection
- Cell balancing
- Overcharge protection
- Temperature protection

### CHARGING

The Freedom XC inverter/charger and the Mastervolt DC-DC charger have been programmed to charge the coach batteries. The Go Power Solar panel charging system has been set to AGM (automatic generator start).

Both Eco-Ion lithium batteries are fused with 150 amp fuses for the protection of your coach and the battery system. These fuses are located on top of the battery area and at the charging source.





*Mastervolt DC-DC Charger*



**Alternator**



**80 Amp Charger Input Breaker**



**Mastervolt DC to DC Charger**



**80 Amp Charger Output Breaker**



**Charge Line Disconnect (red key)**



**Battery Stint Fuse**



**Coach Batteries**

*Inverter DC Charging System*



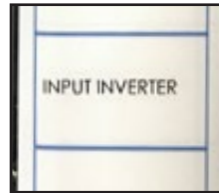
**Shore Power or Generator**



**Automatic Transfer Switch**



**Distribution Panel Shore Power Breaker**



**Distribution Panel Input Inverter Breaker**



**Inverter DC Output**

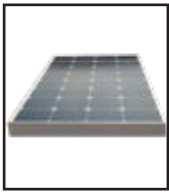


**Battery Stint Fuse**



**Coach Batteries**

*Solar Panel Charging System*



**Solar Panel**



**10 - 30 Amp Fuse**



**Go Power Solar Control**



**30 Amp Fuse**



**Charge Line Disconnect (red key)**



**Battery Stint Fuse**







**Coach Batteries**


**WARNING:** Do not charge your batteries below 32 degrees F or 0 degrees C. Charging the batteries when below these conditions may cause damage to the lithium cells and shorten the lifespan of the batteries. If you are using your coach in freezing temperatures turn the charge line disconnect switch OFF. This will disconnect the engine alternator and solar panels from charging the coach batteries. The coach batteries will continue to discharge and power your coach as normal in conditions up to -20 C or -4 F.

## STORAGE

When placing your vehicle into storage always ensure your coach batteries are fully charged and the 12 volt battery disconnect switch is in the OFF position. To extend the life of your lithium batteries it is recommend that the batteries be fully charged and kept above freezing temperatures when in storage. This may involve removing the lithium batteries from the coach and storing them in temperatures above freezing for winter storage.

**WARNING:** The OEM batteries can only be replaced with identical lithium batteries. The charging system is set up for lithium cells. Replacing the lithium batteries with a Lead Acid, Gel, AGM, etc., battery may result in damage to the vehicle, coach, batteries and electrical system. These damages may result in a thermal incident such as fire, electrical short, melting, off gassing, etc.

 <p><b>Caution</b> See user guide before using this battery. Burn hazard. Never charge the battery without charge protection circuitry.</p> <p><b>Do Not</b></p> <ul style="list-style-type: none"> <li>● Disassemble, crush, puncture, or incinerate</li> <li>● Short circuit external contacts</li> <li>● Expose to temperatures above 140 F (60C)</li> <li>● In series or parallel connections without permit</li> <li>● Over-discharge the battery</li> </ul>	<p><b>Removal of cover plate by unauthorized personnel will void the warranty!</b></p> <p>For more information please ask your suppliers or distributors.</p> <p>12V100Ah LiFePO4 Battery</p> <p>1. Rating=12.8V,100Ah(5hr) 2. Max. input voltage 14.6V 3. Max. charging current: 100A 4. Cut-off voltage:10V 5. Max. discharging current: 100A 6. Peak discharging current: 350A(8s)</p> <p>  </p>
--	--



## WARNING

THIS 12 VOLT ELECTRICAL SYSTEM HAS BEEN DESIGNED TO USE ECO ION LITHIUM ION BATTERIES ONLY.

---

DO NOT USE OR REPLACE WITH LEAD ACID, AGM OR GEL BATTERIES. DOING SO WILL CAUSE SEVERE DAMAGE AND VOID THE WARRANTY.

## WARNING

AS MULTIPLE 12V SOURCES EXIST IN YOUR VEHICLE, ALL 12V SOURCES MUST BE TURNED OFF BEFORE SERVICING COACH BATTERIES. DISCONNECTING COACH BATTERIES MAY NOT DE-ENERGIZE COACH BATTERY. REFER SERVICING TO QUALIFIED TECHNICIANS.

## GENERATOR

Please refer to the manufacturer's operating instructions for further information.

If your unit is equipped with a generator, it will be located at the rear of the vehicle. Access to the generator is from underneath the chassis. There is no access through the interior so as to prevent exhaust gas from seeping into the living compartment. The generator will provide an added source of power to run the electrical system when you are not plugged into a 110 volt power source.

## STARTING THE GENERATOR

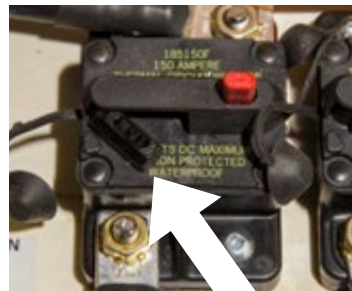
To start your generator, locate the GEN START/GEN STOP switch on either touchscreen control panel. Simply push the button until the generator starts; it may take a few seconds initially for it to start.

Your generator is a gasoline generator that draws its fuel supply from your gasoline tank, the generator will shut down when the gasoline tank reaches  $\frac{1}{4}$ . Once the generator is running, it supplies power to the entire electrical system, just as if your unit were plugged into a 110 volt power source. You will have to balance your electrical consumption as you have a limited number of watts/amps available. The hour meter for your generator is located on the touchscreen control panel above the GEN STOP button.

If the generator does not crank check the 80-amp generator breaker below the driver side ottoman. If the generator runs but does not generate power check the breaker inside the generator compartment.

**NOTE:** *It is recommended that you run your generator for  $\frac{1}{2}$  hour under load each month. This will allow the system to maintain fresh fuel, the engine to be lubricated and the electronic components to avoid corrosive build up.*

**CAUTION:** *If you are running your generator in freezing temperatures and the interior of the coach is below 32 degrees For 0 degrees C, ensure the coach batteries were fully charged prior to this process. If your coach batteries were not fully charged you must warm the interior of the coach until the temperature exceeds 32 degrees F or 0 degrees C. This is done most efficiently by running the furnace and opening the coach battery box door.*



ARM DOWN INDICATES TRIPPED BREAKER



**NOTE:** *For your safety and protection, all generator or generator-ready units are equipped with an automatic transfer switch that will allow your coach to receive power from either shore power or your generator.*

## AUTOMATIC GENERATOR START

The automatic generator start can be used to charge the coach batteries and/or for climate control in your coach.

**NOTE:** To operate the generator on the Lexor there must be at least  $\frac{1}{4}$  tank of gasoline.

**WARNING:** Do not use the automatic generator start if you are plugged into shore power, or if you are in an area where running the generator is prohibited.

Touch the AGS button to enable the AUTO GEN START function. A display will appear with warning and instructions.

AUTO GEN START will not engage if you do not cycle the ignition to the run position within the allotted time or if you touch CANCEL on the screen. The ignition should only remain in the run position for less than 10 seconds otherwise the AUTO GEN START will be disabled.

**NOTE:** When automatic generator start is used for the HVAC system (air conditioning or heating), the appliance must be selected on the main screen, the temperature must be selected and set on the main screen and the fan on the main screen should be set to FAN AUTO.

Touch the SETTINGS button to set the parameters for AUTO GENERATOR START. Once you touch the SETTINGS button you will have a choice between EASY SETUP or MANUAL SETUP. Touch the setup method you want to use.

Select **EASY SET UP** for a quick set up of the start parameters.

### STARTING THE GENERATOR:

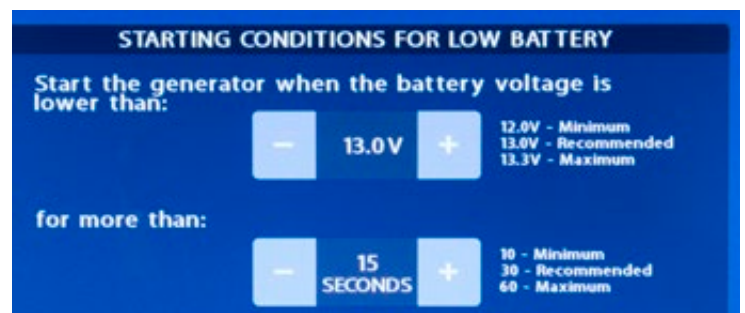
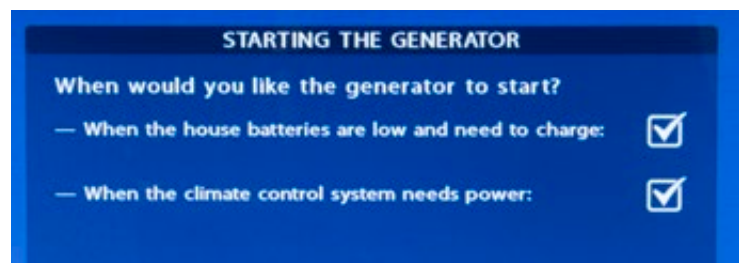
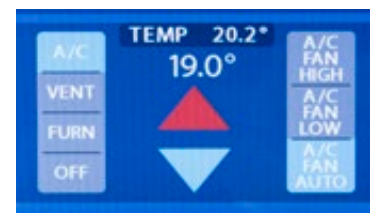
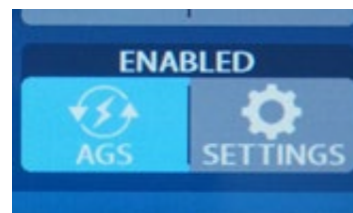
The first screen displayed will ask for the when you want the generator to auto start. Touch the boxes to check or uncheck the reason to enable.

Touch the NEXT button to move to the next screen.

### STARTING CONDITIONS FOR LOW BATTERY:

This screen will enable you to set the voltage and the period of time below that voltage, where you want your generator to start. The generator when running will charge the coach batteries through the converter/charger.

By using the + and - buttons you can change the settings. Choose the NEXT button to move to the next screen.



### GENERATOR RUN LIMITS:

This screen will enable you to set the parameters for run time for the air conditioner settings. Once the air conditioner has brought the coach down to the chosen temperature and cycled off the generator should continue to run for ten minutes. It will also allow you to set the maximum run time for the generator.

### STOPPING CONDITIONS FOR LOW BATTERY:

This screen will enable you to set the parameters for the battery charging system. You will be able to set the desired charge voltage as well as the amount of time that the battery has held the voltage before the generator will shut down. Change the settings by selecting the + and - buttons. Select the NEXT button to move to the next screen.

### QUIET TIME SETTINGS:

Select the box in the right hand corner to enable or disable quiet time settings. Quiet time settings allow you to determine when the generator will not be allowed to run.

Select the box above the FINISH button to enable or disable a battery top up just before the system goes into quiet time settings.

Select FINISH to complete the programming for easy set up.

Select **MANUAL SETUP** for a more in depth set up choice.

### START TRIGGERS:

Select low Battery Voltage or HVAC loads to turn on the required triggers for auto gen start. The button will be in light blue when it is turned on.

Select **QUIET TIME** to set the parameters for the quiet time settings. Change the settings by selecting the + and - buttons.

### STARTING:

Change the settings of battery voltage, delay if the generator fails to start and number of restart tries.

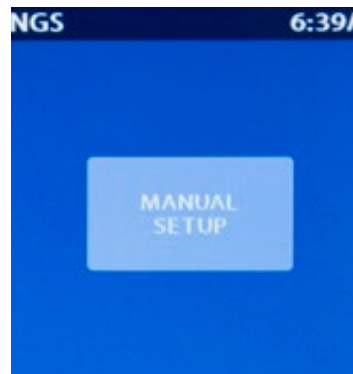
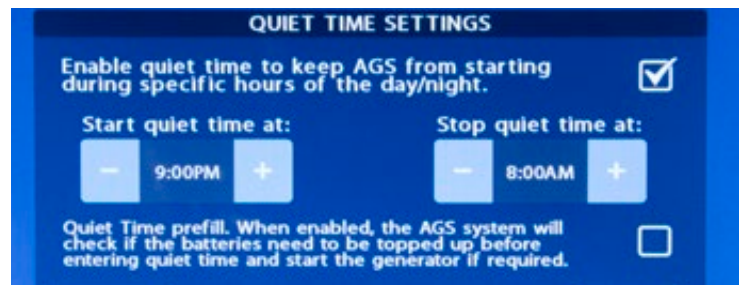
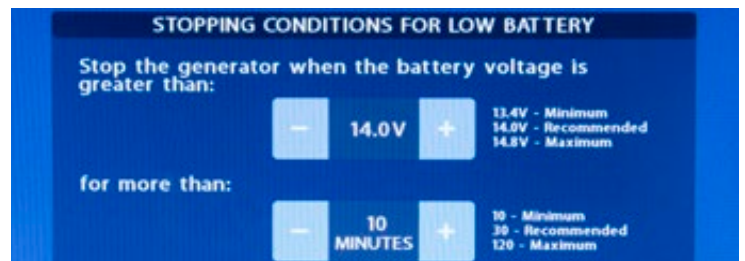
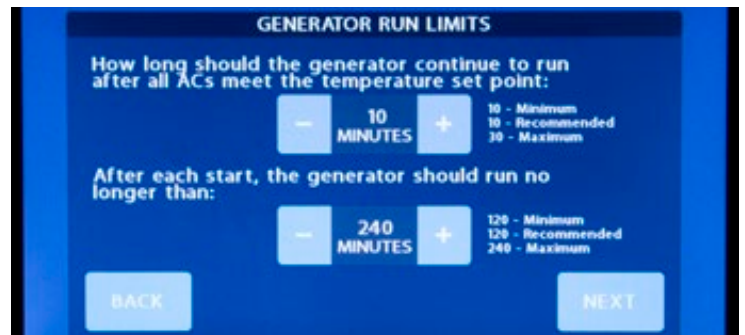
### RUNNING:

Set the parameters for run time of the generator. This applies the HVAC setting.

### STOPPING:

Set the voltage parameters and the amount of time the battery remains at that voltage before the generator will shut off. This applies to the low battery voltage setting.

If both the LOW BATTERY VOLTAGE and the HVAC LOADS are activated which ever one needs the most run time to acquire the desired result will override the other setting.



# MOTORHOME INTERIOR

## INTERIOR COCKPIT MAP LIGHT

Please refer to the vehicle manual for further information.

This is the Ram ProMaster map light system. The cockpit map lights operate off the chassis/engine starting battery.



## COOKTOP

The vehicle is equipped with a two-burner flush mount cooktop located in the kitchen countertop.

(for more information see page 21)



## FURNACE

Your vehicle is equipped with a 16,000 BTU Atwood LP gas Auto Ignition Furnace. The furnace is located near the floor next to the fridge. The thermostat control is located above the interior TV.

(for more information see page 22)



## REFIGERATOR

Your vehicle is equipped with a Dometic three way fridge/freezer (LP gas, AC & DC).

(for more information see page 22)



## WATER HEATER

The water heater is located under the fridge or closet, next to the furnace vent.

(for more information see page 23)

(for winterizing instructions see page 28)



## MICROWAVE

Please refer to the manufacturer's operating instructions for further information.

Your microwave/convection oven operates off of 110 volt AC power only. To use your microwave you must be plugged into shore power, have the generator operating, or use the 2000 watt inverter.

**NOTE:** You will not be able to run your microwave oven at the same time as your rooftop air conditioner if you are running on generator power.



## SOLAR PANEL PACKAGE

Please refer to the manufacturer's operating instructions for further information.

Your vehicle can be equipped with a 95 watt to 285 watt Carmanah solar panel package located on the center of the roof. The Go Power solar panel charge controller is located on the kitchen end panel facing the rear of the coach.

The solar controller shows BATTERY VOLTAGE, CHARGE, and SOLAR AMPS. To scroll through the modes press the B button. The solar charge controller should be set to AGM batteries as this is the closest charge cycle to the lithium charge system.

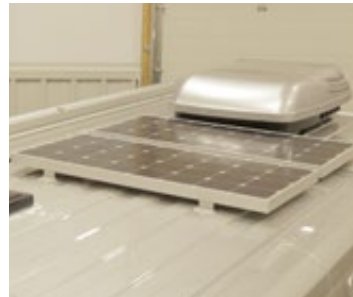
The solar panels will charge the coach batteries even when the battery disconnect is in the OFF position.

To prevent the solar panels from charging coach batteries you must turn OFF the charge line disconnect (red key).

**NOTE:** Ensure the solar panels are clean for optimal charging output.

**CAUTION:** To ensure you solar panels are not active when servicing the batteries it is advised to cover the solar panels.

**CAUTION:** Turn OFF the charge line disconnect if the vehicle is going to be in storage for a period of time or in sustained freezing conditions without internal heat.



## FAN-TASTIC VENT® FAN

Please refer to the manufacturer's operating instructions for further information.

This fan's vent is located on the roof-top near the shower skylight and close to the bathroom door, in the kitchen area of the interior. This fan will assist in exhausting the odors and steam from the bathroom and cooking area. This fan is equipped with a rain sensor. The controls for the fan are located on the mechanical page of the touchscreen control panel.

The controls for the fan are located on the touchscreen on the MECHANICAL page. To open and close the Fan-Tastic® Fan, Select the LID UP or LID DOWN button on the touchscreen panel.

Select the FAN button to start the fan.

This fan is an exhaust fan used to draw air out of the coach. The fan is also controlled by the thermostat. Ensure the temperature of the thermostat is higher than the inside temperature. Select the + and - buttons to increase/decrease the speed of the fan.

**NOTE:** *The fan is equipped with a rain sensor so the fan cannot be operated when it is raining. The fan cannot be operated when the fan lid is closed.*

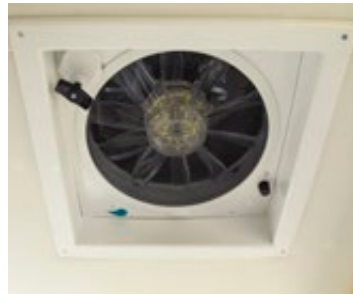
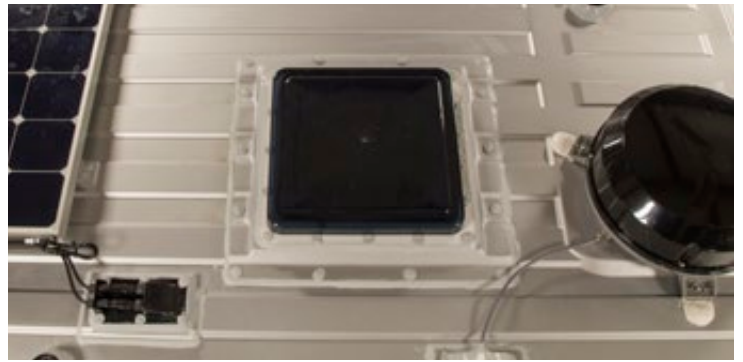
## AIR CONDITIONER

Please refer to the manufacturer's operating instructions for further information.

Your vehicle is equipped with the 11,000 BTU low profile Dometic air conditioner. From the ground to the top of the air conditioner it measures 9' 3 1/2". This is the highest point on your vehicle. Ensure you allow for this clearance when proceeding under overhead items.

The controls for the air conditioner are located on the HOME page touchscreen control panel. Choose A/C, and set the chosen temperature and fan speed for your comfort. If you wish for the A/C to cycle on and off choose auto for the fan speed. By choosing fan low or high the fan will continue to run.

**NOTE:** *When running the A/C in high heat or high humidity it is recommended the fan speed be set to HIGH. This will help avoid condenser freeze up.*





## USB CHARGING PORT

Your motorhome is equipped with USB charging ports. The driver and passenger side rear ottoman each feature a USB charging port. The Lexor FL also features a charging port behind the driver seat in the front lounge area.

Each charging port features 2 USB slots that will fit a USB type A connector. The 12 volt battery disconnect switch must be ON to power the USB ports. The USB ports are protected by a resettable breaker found on the DC Load Center.



## TV & BLU-RAY

Please refer to the manufacturer's operating instructions for further information.

This motorhome is equipped with TV, Blu-ray/DVD and soundbar components. You will find these located in the entertainment center. These components are powered by a 110 volt power source (inverter, shore power or generator).

### COMPONENTS:

1. 24" Smart LED TV
2. Blu-ray /DVD player
3. Bose® Solo 5 soundbar w/Bluetooth®
4. Antenna with booster

**NOTE:** Your Blu-ray player is a player only as it will not record. To play a CD or MP3 the TV must be ON.

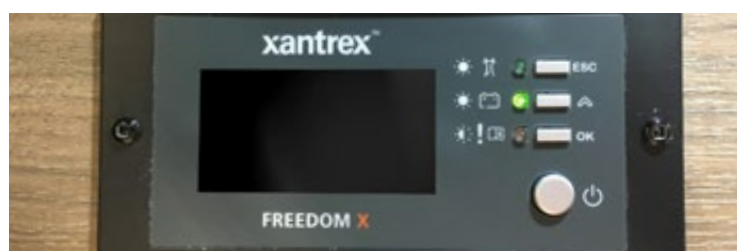
**NOTE:** When traveling the TV should be stowed in the locked position.



## 12 VOLT OR DC OPERATION

The inverter will be used if you are not plugged into shore power or running the generator.

1. Turn the inverter ON. Ensure the TV and Blu-ray player are plugged into the wall outlet located above the Blu-ray player in the cabinet.
2. Turn the antenna booster ON by pressing the black button on the antenna booster. Press the search button.
3. Turn the TV ON and select DTV-TV using the input button on your TV or remote.
- 4) Using the menu button select - TV > Channels > Scan Channel. This will bring in all local air channels.



- For Cable TV connect a cable extension cord from the cable hookup in the component compartment to the park cable outlet. Turn the TV antenna booster OFF. Follow step (4) for auto programming.
- For Blu-ray operation turn ON the Blu-ray player. Using the source button on the TV or TV remote, select HDMI 1. Insert a DVD or Blu-ray disc and allow the disc to load and press play.

### 120 VOLT OR A/C OPERATION

When using generator or shore power switch the inverter OFF. Use the same programming procedures as the 12 volt operation.

**NOTE:** To save power while watching TV ensure the Blu-ray player is switched OFF. Only turn your Blu-ray player on when in use.



### BED LAYOUT

- To recline the sofa, press the mechanical page button, on the bottom of the touchscreen control panel. Touch and hold the EXTEND button until the sofa is reclined into the desired position.
- Remove the bed boards from the closet.
- Place the two bed boards on the ottoman rails.
- Place the ottoman backrests between the seat cushions, to complete the bed make up.



### FRONT CAB PRIVACY SHADES

Fully form fitting to your windshield and cab doors, these shades provide total privacy up front when needed.

- Driver and passenger shades are magnetic.
- Windshield shade is held in place with the visors.



## TABLE

### Lagun Table Mount System

The lagun table and legs are located under the passenger side ottoman

1. Remove the leg by loosening the black handle and sliding it off of the table mount plate.
2. Slide the leg onto the mounting bracket, position to the desired height and tighten.
3. Press the table top arm onto the upright leg. Swivel into position using black handles to tighten / loosen.

The Lexor FL has an additional mounting bracket in the cab area behind the driver seat.



## JACK AND JACK TOOLS

The jack and jack tools are located under the power sofa on the driver side. Access is through the rear doors. Undo the wide Velcro straps that are holding the tool bag to the floor and remove the tool bag. The tool bag contains the jack and all necessary tools for tie removal. It also contains the tow hook.

**NOTE:** See the Ram ProMaster owner's manual for jacking points and user instructions.

**NOTE:** There is no spare tire included with this vehicle. For your convenience a flat repair kit that includes tire repair liquid and an air compressor has been provided in the front door panel pocket.



## TIRE SAFETY



*The following information has been acquired from the NHTSA website.*

### EVERYTHING RIDES ON IT

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.

### SAFETY FIRST—BASIC TIRE MAINTENANCE

Properly maintained tires improve the steering, stopping, traction, and load-carrying capability of your vehicle. Under-inflated 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.

### 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 vehicle door edge, door post, glove-box door, or inside of the trunk lid. You can also find the recommended tire pressure and load limit for your vehicle in the vehicle owner's manual.

## **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.

## **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.

## **STEPS FOR MAINTAINING PROPER TIRE PRESSURE**

1. Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the owner's manual.
2. Record the tire pressure of all tires.
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.
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.
5. At a service station, add the missing pounds of air pressure to each tire that is underinflated.
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 under-inflated, 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 under-inflated 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 under-inflated 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.

## **TIRE SIZE**

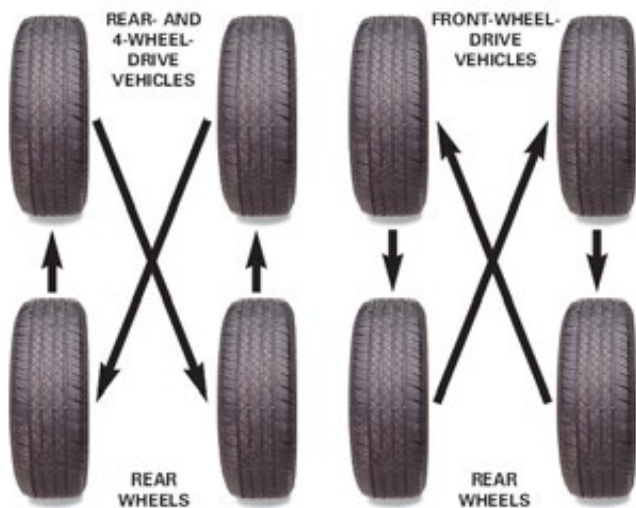
To maintain tire safety, purchase new tires that are the same size as the vehicle's original tires or another size recommended by the manufacturer. Look at the tire information placard, the owner's manual, or the sidewall of the tire you are replacing to find this information. If you have any doubt about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

## **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.

## **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 and prevents your car from veering to the right or left when driving on a straight, level road. These adjustments require special equipment and should be performed by a qualified technician.



### A Tire Rotation Example

For maximum mileage, rotate your tires every 5,000 miles. Follow correct rotation patterns.

### TIRE ROTATION

Rotating tires from front to back and from side to side can reduce irregular wear (for vehicles that have tires that are all the same size). Look in your owner's manual for information on how frequently the tires on your vehicle should be rotated and the best pattern for rotation.

### 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.

### 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.

## UNIFORM TIRE QUALITY GRADING SYSTEM (UTQGS)

To help consumers compare a passenger car tire's treadwear rate, traction performance, and temperature resistance, the federal government requires tire manufacturers to grade tires in these three areas. This grading system, known as the Uniform Tire Quality Grading System, provides guidelines for making relative comparisons when purchasing new tires. You also can use this information to inquire about the quality of tires placed on new vehicles.

*Although this rating system is very helpful when buying new tires, it is not a safety rating or guarantee of how well a tire will perform or how long it will last. Other factors such as personal driving style, type of car, quality of the roads, and tire maintenance habits have a significant influence on your tire's performance and longevity.*

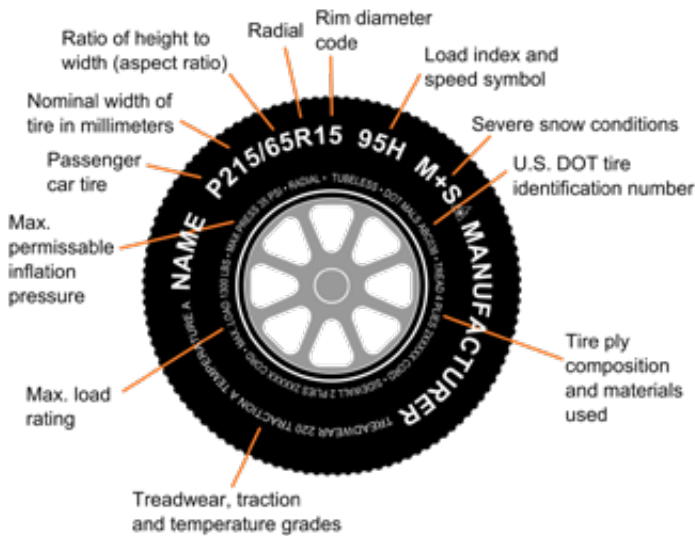
*Treadwear grades are an indication of a tire's relative wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire grade of 400 should wear twice as long as a tire grade of 200.*

*Traction grades are an indication of a tire's ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as "AA", "A", "B", and "C".*

*Temperature grades are an indication of a tire's resistance to heat. Sustained high temperature (for example, driving long distances in hot weather), can cause a tire to deteriorate, leading to blowouts and tread separation. From highest to lowest, a tire's resistance to heat is graded as "A", "B", or "C".*

## 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 “M/S” 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.

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.*

**U.S. DOT Tire Identification Number**  
This begins with the letters “DOT” and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year the tire was built. For example, the numbers 3197 means the 31st week of 1997. The other numbers are marketing codes used at the manufacturer’s discretion. This information is used to contact consumers if a tire defect requires a recall.



## Tire Ply Composition and Materials Used

The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.

## Maximum Load Rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

## Maximum Permissible Inflation Pressure

This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

## UTQGS Information

**Treadwear Number**

This number indicates the tire's wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire graded 400 should last twice as long as a tire graded 200.

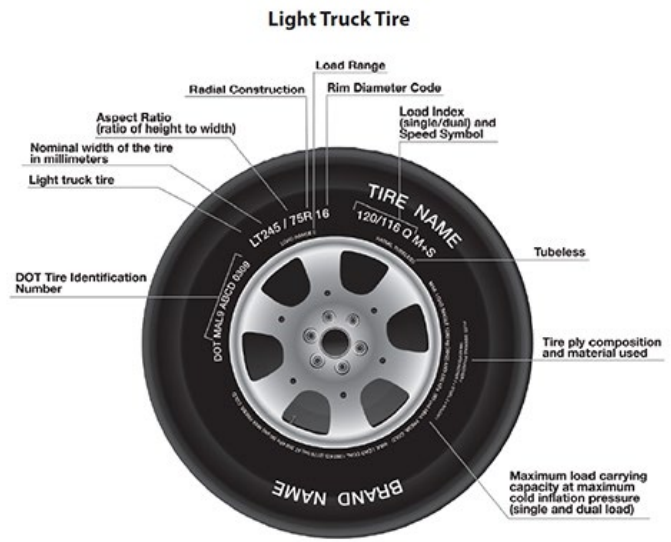
## Traction Letter

This letter indicates a tire's ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as "AA", "A", "B", and "C".

## Temperature Letter

This letter indicates a tire's resistance to heat. The temperature grade is for a tire that is inflated properly and not overloaded. Excessive speed, underinflation or excessive loading, either separately or in combination, can cause heat build-up and possible tire failure. From highest to lowest, a tire's resistance to heat is graded as "A", "B", or "C".

## ADDITIONAL INFORMATION ON LIGHT TRUCK TIRES



Tires for light trucks have other markings besides those found on the sidewalls of passenger tires.

## LT

The "LT" indicates the tire is for light trucks.

## Max. Load Dual kg(lbs) at kPa(psi) Cold

This information indicates the maximum load and tire pressure when the tire is used as a dual, that is, when four tires are put on each rear axle (a total of six or more tires on the vehicle).

## Max. Load Single kg(lbs) at kPa(psi) Cold

This information indicates the maximum load and tire pressure when the tire is used as a single.

## Load Range

This information identifies the tire's load-carrying capabilities and its inflation limits.

## Snow Tires

In some heavy snow areas, local governments may require true snow tires, those with very deeply cut tread. These tires should only be used in pairs or placed on all four wheels. Make sure you purchase snow tires that are the same size and construction type as the other tires on your vehicle.

# MAINTENANCE LOG

MODEL: \_\_\_\_\_

VIN#: \_\_\_\_\_

YEAR: \_\_\_\_\_

DATE PURCHASED: \_\_\_\_\_

DATE	WORK PERFORMED	BY	MILEAGE	NOTES

DATE	WORK PERFORMED	BY	MILEAGE	NOTES

302 PORTAGE AVENUE  
SASKATOON SK, CANADA S7J 4C6  
TEL: 800.364.0189 FAX: 306.934.7085

**[WWW.PLEASUREWAY.COM](http://WWW.PLEASUREWAY.COM)**