# MOTORHOME OWNER'S MANUAL

# GULF STREAM



COACH, INCORPORATED

Nappanee, Indiana





GULF STREAMERS
INTERNATIONAL RV CLUB
APPLICATION – PAGE 42



## **GULF STREAM COACH MOTOR HOME OWNER'S MANUAL**

## Congratulations!

You are the proud owner of a new GULF STREAM COACH, INC. motor home, a remarkable recreational vehicle that has been engineered, tested and built in Indiana to meet your traveling and relaxation needs for many pleasurable years to come.

Many thousands of individuals have preceded you onto the highways of America, Canada and Mexico in GULF STREAM vehicles, enjoying the beauty of nature and the companionship of good people. Through personal contacts, both on the road and over the phone, GULF STREAM'S engineering and manufacturing staff has learned a lot about how our customers utilize their vehicles. We've put thousands of miles on our own test vehicles over the same roads many of our customers travel each year.

It's been our experience that if a customer plans well, follows the basic rules of the road and design limitations placed on their vehicle and its equipment, that they will enjoy thousands of carefree miles.

That's why we've included this Owner's Manual in your Owner's Packet along with the individual instruction booklets for all your appliances, optional equipment and detailed Operator's Manuals from the manufacturer of your chassis and motor. The more information you have available to you, the more you will get out of your new vehicle.

Please read over this manual and all the other owner's manuals included in your packet. It will make your initial trips in your new GULF STREAM much more pleasurable and save time in the long haul.

Good traveling and good camping!

Sincerely,

GULF STREAM COACH, INC. PO Box 1005 Nappanee, Indiana 46550

## **TABLE OF CONTENTS**

GULF STREAM WARRANTY	
LP GAS SAFETY	7
PREPARING FOR THE OPEN ROAD – GENERAL SAFETY	.8
SEAT BELT USAGE	
CHILD'S SAFETY SEATS	
SEAT BELT MAINTENANCE	8
SEAT BELT MOUNTING	.9
FIRE SAFETY	
SMOKE DETECTOR	
CARBON MONOXIDE SAFETY	
LP GAS SAFETY	
GASOLINE TANK SAFETY	
VEHICLE LOADING.	
CARRYING CAPACITY	
LOADING TIPS	
MANUFACTURER'S LABELS.	
WEIGHT DEFINITIONS	
WEIGHT LIMITATIONS, DISTRIBUTION AND VEHICLE HANDLING.	12
METHOD OF WEIGHING YOUR VEHICLE	
WEIGHT DISTRIBUTION FORMULASAIR BAG AND SUSPENSION MODIFICATION WARNING	13
DANGERS OF OVERLOADING	
VEHICLE OR TRAILER TOWING	
VEHICLE WEIGHT INFORMATION LABEL	
TIRES	
TIRE MARKINGS	
TIRE LOAD RATINGS	
TIRE AIR PRESSURE	
TIRE MAINTENANCE	15
EMERGENCY TOWING OF THE MOTOR HOME	
DAY-TO-DAY OPERATION	
DRIVING TECHNIQUES	16
GROUND CLEARANCE	
WARM WEATHER/HIGH ELEVATION OPERATION	. 16
DRIVER CONTROLS	17
BRAKES	
ANTI-LOCKING BRAKING SYSTEMS (ABS)	17
PAC BRAKES AND JAKE BRAKES	17
DASHBOARD INSTRUMENTS	17
UNUSED DASHBOARD SWITCH LOCATIONS	18
DASH SWITCH SYMBOLS	
STARTING AND VEHICLE WARM UP	18
TURBO DIESEL OPERATING INSTRUCTIONS	
JUMPSTARTING/EMERGENCYSTARTSWITCH	
COACH SYSTEMS.	
SAFETY	
ELECTRICAL	
12-VOLT/110-VOLT	
30-AMP AND 50-AMP 110-VOLT SERVICE	
POWER CONVERTER	
GROUND FAULT INTERRUPTER	
BATTERY	
BATTERY TYPES AND CHARGING	
ONBOARD AUXILIARY POWER GENERATOR	
INVERTER	
MONITOR PANEL	
IVIONITOR FANEL	. 44

TV ANTENNA AND CABLE CONNECTIONS	
LP GAS	. 25
GENERAL	. 25
CLIMATE DIFFERENCES	. 25
OPERATION	
FILLING THE LP TANK	
GAS LINE CHECK	
REGULATOR PRESSURE	26
GAS TANK AND REGULATOR FREEZE UP	26
HOSE REPLACEMENT.	
REGULATOR VENT MAINTENANCE	27
PLUMBING	
FRESH WATER	
CITY WATER	
WATER TANK	
QUICK FILL WATER SUPPLY	
SANITIZING THE WATER TANK	. 28
WATER PUMP	. 28
SECONDARY WATER PUMP SWITCH	
WINTERIZING THE WATER PUMP	
WATER MANIFOLD SYTEM	
WINTERIZING BYPASS ON MANIFOLD	
DRAINAGE AND SEWER	
DRAINAGE P-TRAPS	
HOLDING TANKS	
EMPTYING HOLDING TANKS	
HOLDING TANK MAINTENANCE	
DO'S AND DON'TS OF HOLDING TANK USE	
HOLDING TANK FLUSH SYSTEM	
WATER SYSTEM WINTERIZING	
APPLIANCES	
WATER HEATER	
RANGE	
MICROWAVE	
REFRIGERATOR	
FURNACE	
AIR CONDITIONER (ROOF)	33
FANTASTIC FAN OPERATION	
EFFECTS OF LONG TERM OCCUPANCY	. 34
FORMALDEHYDE	34
CONDENSATION AND MOLD	. 35
SLIDE OUT SYSTEMS	35
SLIDE OUT MANUALS AND TROUBLESHOOTING	35
SLIDE OUT KILL SWITCH	. 35
SLIDE OUT BREAKER SWITCH	
SLIDE OUT WEATHER SEALS	
LEVELING JACKS	36
LEVELING JACK CIRCUIT BREAKER	. 36
AWNINGS	
AWNING CARE	
VEHICLE MAINTENANCE	
WINDSHIELD, ROOF, SIDEWALL COMPONENTS	
PAINT, FIBERGLASS AND SIDEWALL CAR	
CORROSION PROTECTION	
REPORTING SAFETY DEFECTS	
PRE-TRIP CHECKLIST	
INDEX.	
GULF STREAMERS INTERNATIONAL RV CLUB APPLICATION	

## **GULF STREAM WARRANTY AND WARRANTY SERVICE**

# **GULF STREAM COACH, INC. LIMITED WARRANTY**

IN THE UNITED STATES AND CANADA

For Your Protection And Understanding, Read All Parts Of This Limited Warranty And All Other Warranties Furnished With This Recreational Vehicle.

#### 1. WHAT IS COVERED

A new Gulf Stream Coach, Inc. ("Gulf Stream") motorized recreational vehicle has a limited warranty by Gulf Stream to the initial retail purchaser and subsequent purchasers ("Purchaser") under normal use, when sold by an authorized Gulf Stream dealer and used for its intended purpose for recreational travel and camping as follows:

- a) A one (1) year warranty under normal use against defects in Gulf Stream materials and/or workmanship in the construction of the recreational vehicle.
- b) A two (2) year warranty under normal use against structural defects in Gulf Stream materials and/or workmanship in the construction of the floors, walls and roof.

The warranty coverage starts on the date the initial retail purchaser takes possession of such recreational vehicle. This Limited Warranty covers only those defects which occur or exist within the applicable period(s) referenced above <u>and</u> which are specifically identified to Gulf Stream in the manner specified in Section 4 of this Limited Warranty. All obligations of Gulf Stream pursuant to this Limited Warranty are limited to replacing or repairing the defective part or component.

#### 2. DISCLAIMER OF WARRANTIES

This Limited Warranty is expressly IN LIEU of any other express warranty and is further IN LIEU of any implied warranty, including, but not limited to, any implied WARRANTY OF MERCHANTABILITY or FITNESS for a particular purpose. To the extent that applicable state and/or federal law prohibits the exclusion of any remedy permitted under state or federal law, any such remedy, including, but not limited to, implied warranties of fitness, use, merchantability or purpose, is limited to one (1) year from the date the initial retail purchaser takes delivery of the recreational vehicle.

#### 3. WHAT ARE THE INDEPENDENT DEALER'S OBLIGATIONS

It is the responsibility of the independent dealer ("dealer") to maintain the recreational vehicle until retail sold; to perform a comprehensive pre-retail delivery check procedure and inspection; to repair or replace any defective parts; to correct defects in workmanship which are identified prior to initial retail purchaser's taking delivery of the recreational vehicle; to present the initial retail purchaser with this Limited Warranty prior to the initial retail purchaser's entering into any written contract to purchase a recreational vehicle; and to mail to Gulf Stream the signed Gulf Stream Recreational Vehicle Registration Form and the signed Limited Warranty.

#### 4. WHAT ARE THE PURCHASER'S OBLIGATIONS

The Purchaser is responsible for all maintenance as described in the Gulf Stream Owner's Manual and/or any other care and maintenance manual supplied with the recreational vehicle; however, minor adjustments (such as adjustments to the interior or exterior doors, LP regulator pressure, cabinet latches, TV antenna control, etc.) will be performed by the dealer during the <u>first 90 days of warranty coverage only</u>. Thereafter, such adjustments are the responsibility of the Purchaser as normal maintenance unless required as a direct result of repair or replacement of a defective part under this Limited Warranty.

If an issue occurs which the Purchaser believes is covered by this Limited Warranty, Purchaser is responsible to promptly contact Gulf Stream by certified mail, return receipt requested, giving specific notice of the issue(s) being experienced with the recreational vehicle. Such notice must be addressed to the National Retail Service Manager, Gulf Stream Coach, Inc., P.O. Box 1005, Nappanee, Indiana 46550, and must be received by Gulf Stream within the earlier of 30 days after the issue is known to the initial retail purchaser or 10 days subsequent to the expiration of this Limited Warranty. After proper notification has been received by Gulf Stream Coach, Inc., failure of Purchaser to initiate prompt service of repairs approved by Gulf Stream within 30 days of approval WILL VOID ANY CLAIM FOR SUCH DEFECT OR DAMAGE.

Gulf Stream will arrange for repair or replacement, as determined by Gulf Stream, of Gulf Stream parts or workmanship identified as defective by Gulf Stream and such parts replaced shall become property of Gulf Stream. Gulf Stream is ready, willing and able to make every effort for a quick response. If for any reason the recreational vehicle is out of service, or is anticipated to be out of service for a cumulative total of seven (7) days during the applicable warranty period, regardless of

whether the cause of such out of service time is covered by this Limited Warranty, the Purchaser is to immediately contact Gulf Stream by certified mail, return receipt requested, setting forth the service issue(s). Gulf Stream reserves the right to cure all warranty claims. Service work conducted by any party not specifically authorized by Gulf Stream to undertake such work is specifically not covered by this Limited Warranty and WILL VOID THIS LIMITED WARRANTY. Further, failure of the Purchaser to comply with the notification provisions of this section WILL VOID THIS LIMITED WARRANTY.

The Purchaser must maintain all evidence of any defect or damage through the ultimate resolution of any claim and make such evidence available to Gulf Stream. Failure to preserve such evidence will VOID ANY CLAIM FOR SUCH DEFECT OR DAMAGE.

#### 5. WHAT IS NOT COVERED BY LIMITED WARRANTY

- This Limited Warranty does not apply to any vehicle sold to the initial retail purchaser more than two years after shipment to the authorized Gulf Stream selling dealer.
- The automotive systems including, but not limited to, tires, wheels, batteries, the chassis and drive train and any part of that chassis included/supplied by the chassis manufacturer.
- Appliances and component parts not manufactured by Gulf Stream, including, but not limited to, auxiliary generator power plants, refrigerators, air conditioners, water heaters, furnaces, invertors, etc.
- Failure which may be caused by, or related to abuse, misuse, negligence, or accident; failure which may be related to alteration(s) or modification(s), failure as a result of not following instructions contained in the Gulf Stream owner's manual and/or any other care and maintenance manual supplied with the recreational vehicle.
- Deterioration due to wear or exposure, such as fading of fabrics or drapes, carpet wear, exterior surfaces, etc.
- Maintenance items, including, but not limited to, light bulbs, fuses, wiper blades, lubricants, minor adjustments, wheel alignments.
- Use of the recreational vehicle for any commercial or rental purpose voids the warranty from the time that the vehicle is first used for a commercial or rental purpose and at all times thereafter.
- Motor homes on which the odometer reading has been altered.
- Transportation to and from dealer, service center or manufacturing plant location, nor any consequential and/or incidental expenses such as, but not limited to, loss of time, commercial loss, loss of use, towing charges, lodging, food, phone calls, inconvenience, bus or plane fares, rental charges or storage fees.
- Any defects or shortages at the time of delivery to the Purchaser unless noted on the *driver and dealer acceptance form* or the *driver evaluation sheet*.
- Non-structural defects in the exterior fiberglass sidewall panels, including, but not limited to, checking, crazing, cracking, chalking and/or porosity.
- Any component part which possesses its own warranty from a party other than Gulf Stream.
- Loss or damage caused by insurrection, riot, or act of the public enemy, loss or damage caused by forces of nature, including but not limited to, flood, wind, storm, hurricane, tornado, blizzard, explosion, or fire.

#### 6. IMPORTANT FACTS

- The Purchaser must inspect the recreational vehicle at the time of delivery to ensure that it is acceptable as delivered. This recreational vehicle has been sold to an independent dealer, and not an agent of Gulf Stream, for resale in the ordinary course of the dealer's business, on terms and conditions and equipped as the dealer and the initial retail purchaser determine, and the initial retail purchaser's agreement is solely with the dealer, not Gulf Stream. Gulf Stream does not participate in retail sales or retail contracts.
- Gulf Stream reserves the unrestricted right at any time and from time to time to make changes in the design of and/or improvements upon its recreational vehicles without thereby imposing any obligation upon itself to make corresponding changes or improvements in or upon its recreational vehicles already manufactured. Gulf Stream further reserves the right to substitute parts or components of substantially equal quality in any warranty service required by operation of this Limited Warranty.
- Like any other product, a recreational vehicle and the products installed in it will require care and maintenance attention by the owner and occupants. Please read and follow all care and maintenance manuals, warning labels, safety notices and instructions supplied with the recreational vehicle.
- Authorized dealers and service centers are independent contractors and independently owned businesses. This is also true of the authorized chassis dealers and service centers.

## 7. JURISDICTION AND APPLICABLE LAW

Exclusive jurisdiction for deciding any claims, demands or causes of action for defects or representations of any nature or damages due from such defects or representations shall be in the courts in the State of Manufacture. The laws applicable to any

litigation, dispute, mediation, arbitration or any claim whatsoever arising from the sale, purchase, or use of the recreational vehicle shall be those of the State of Manufacture. The State of Manufacture of the recreational vehicle is Indiana.

This Limited Warranty gives Purchaser specific legal rights and the Purchaser may also have other rights that may vary from state to state. Gulf Stream is not responsible for any representation or warranty that is not herein stated unless required by applicable state or federal law. Some states may prohibit certain exclusions from express warranty coverage, and/or the exclusion of remedies and implied warranties. Some states do not allow limitations on how long the Purchaser's remedies are available or an implied warranty lasts, so, to the extent applicable state law permits a remedy or an implied warranty obligation on the part of Gulf Stream, the above limitation of remedies stated in Section 2 may not apply. Some states do not allow the exclusion or limitation of damages, so, to the extent applicable state law does not permit such limitation or exclusion, the limitation and exclusions set forth in Section 2 above may not apply. Consult your personal attorney to determine all rights under the state and federal consumer laws, which may offer remedies in addition to or different from this Limited Warranty.

I/WE HEREBY ACKNOWLEDGE THAT I/WE HAVE READ AND RECEIVED THIS LIMITED WARRANTY PRIOR TO ENTERING INTO ANY CONTRACT TO PURCHASE MY/OUR GULF STREAM RECREATIONAL VEHICLE AND AGREE TO ABIDE BY ALL OF ITS TERMS AND PROVISIONS INCLUDING, BUT NOT LIMITED TO, THE DISCLAIMER OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE LAW ALLOWS, AND THE PROVISIONS HEREOF PROVIDING THAT THE EXCLUSIVE JURISDICTION FOR ANY CLAIMS WHATSOEVER SHALL BE IN THE COURTS IN THE STATE OF MANUFACTURE AND THAT THE APPLICABLE LAW SHALL BE THE LAW OF THE STATE OF MANUFACTURE.

## WARRANTY SERVICE

- 1. Warranty service, under your Limited Warranty, is to be performed by your authorized Gulf Stream dealer from whom you purchased your unit or by an authorized service center for those appliances and equipment not maintained by Gulf Stream. Your dealer has a vested interest in your satisfaction, therefore, if at all possible; it is best to return to your dealer for service.
- 2. If you are traveling or move, any authorized dealer may provide service. Keep your warranty registration form with the vehicle at all times since it must be presented for warranty service. This form is your proof of purchase and provides the date of retail sale, both of which are necessary to determine warranty eligibility.
- 3. If you cannot locate an authorized Gulf Stream dealer contact:

GULF STREAM COACH, INC. PO Box 1005 Nappanee, IN 46550 1.800.482.6456

- 4. Other warranties The retail customer is responsible for completing and forwarding warranty forms for all items not covered by either the chassis manufacturer's or Gulf Stream's warranty.
- 5. YOUR WARRANTY IS NOT VALID UNTIL IS HAS BEEN SIGNED AND SUBMITTED TO GULF STREAM COACH, INC!

Your authorized Gulf Stream Dealer from whom you purchased your unit will assist you in service, maintenance, selection of options, and instructions concerning the operation of your recreational vehicle. Occasionally, a warranty or service matter may not be handled to your satisfaction. In this case, we recommend that you discuss the problem with dealer management. If you are unable to find satisfaction at the dealer level, please contact the Gulf Stream Service Department, where we will make our best effort to reach an agreeable solution. In most instances, we will eventually refer you back to the local dealer with our recommendations.

## LP GAS HEATING SYSTEM AND LP GAS APPLIANCE SAFETY REGULATIONS

The United States Government requires that the manufacturer of this recreational vehicle provide the following safety information that has been provided by the National Fire Prevention Association (NFPA) and the American National Standards Institute (ANSI). The information contained below will also be found, along with additional information, in other appropriate sections of this operator's manual. Refer to the Table of Contents and the Index.



WARNING: LP-Gas cylinders shall not be stored inside the vehicle. LP-Gas cylinders are equipped with safety devices that relieve excessive pressure by discharging gas to the atmosphere. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

A warning label has been located near the LP-Gas container. This label reads as follows.

DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY.

- 1. Overfilling the LP-Gas container can result in uncontrolled gas flow, which can cause fire or explosion.
- 2. A properly filled container will contain approximately 80 percent of its volume as liquid LP-Gas.



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

- Cooking appliances need fresh air for safe operation. Before operation:
  - (a) Open the overhead vent or turn on the exhaust fan.
  - (b) Open a nearby window.
- Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle, and proper ventilation when using cooking appliance(s) will avoid the 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. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.



WARNING: Portable fuel-burning equipment, including wood, charcoal grills and stoves, shall not be used inside the recreational vehicle. The use of this equipment inside the recreational vehicle can cause fires and asphyxiation.



WARNING: Do not bring or store LP-Gas cylinders, gasoline or other flammable liquids inside the vehicle because a fire or explosion can result.

The following label has been placed in the cooking area of the vehicle:

#### IF YOU SMELL GAS:

- 1. Extinguish any open flame, pilot light and smoking material.
- 2. Do not touch electrical switches.
- 3. Shut off the LP gas supply at the tank valve(s) or gas supply connection.
- 4. Open doors and other ventilating openings.
- 5. Leave the area until the odor clears.
- 6. Have the gas system checked and leakage source corrected before using again.

LP gas regulators must always be installed with the regulator vent facing downward. Regulators that are not in compartments have been equipped with a protective cover. Make sure that the regulator vent faces down and that the cover is kept in place to minimize vent blockage that could result in excessive gas pressure causing fire or explosion.

Notice: All LP gas regulators are factory tested for proper pressure output. Pressure output should be checked periodically by a qualified LP dealer. Only qualified persons should install, adjust or service LP gas regulators. If service is needed contact a qualified LP dealer.

## PREPARING FOR THE ROAD

## Approaching the open road in a professional manner

As a proud owner and operator of a GULF STREAM motor home you will be commanding one of the larger privately owned vehicles using the nation's roadways.

The only vehicles that will be as large or larger than your "rig" will be trucks and buses of the professional driver. Don't let the car-like handling characteristics of your new GULF STREAM lull you into a less than vigilant attitude towards highway driving. Your safety, the safety of your passengers and those on the road alongside you depend on your "professional" driving attitude.

Professional drivers approach their driving responsibilities methodically from the outset of the trip. They include thorough pre-trip planning and equipment checks. They also include equipment checks along the route and take into consideration driver fatigue.

GULF STREAM COACH, INC. provides this operator's manual so that you can approach your driving in the most professional manner possible. Read the manual carefully. Learn your vehicle's personality. And keep this manual handy for ready reference. Before you know it, you and your machine will be a "team" and you'll be proud of the professional manner in which you approach the serious business of driving a large vehicle on the open road.

## **GENERAL SAFETY**

#### **SEAT BELT USAGE**

All seats designated for occupancy during travel are equipped with seatbelts for the protection and safety of passengers. Rear facing seats, as used in the dining area, as well as those seats labeled "Not for occupancy while vehicle is in motion", are not equipped with seatbelts and should not be occupied while the vehicle is in motion.

NOTE: MANY STATES HAVE PASSED LAWS THAT REQUIRE SEATBELTS TO BE WORN BY ALL PASSENGERS WHEN THE VEHICLE IS IN MOTION.

#### CHILD'S SAFETY SEATS

NOTE: MANY STATES HAVE PASSED LAWS THAT REQUIRE ALL PASSENGERS UNDER TWO YEARS BE RESTRAINED BY USE OF AN INFANT'S SAFETY SEAT, AND THOSE UNDER FOUR YEARS BE RESTRAINED BY A CHILD SAFETY SEAT. THESE SEATS MUST BE PROPERLY FITTED TO A STANDARD LAP OR SHOULDER BELT. CONSULT SEAT MANUFACTURER'S INSTRUCTIONS FOR PROPER SECURING OF THESE SAFETY SEATS.

MANY STATES HAVE SPECIFCALLY OUTLAWED THE PRACTICE OF HOLDING INFANTS IN THE LAPS OF VEHICLE DRIVERS AND PASSENGERS.



WARNING: AN INFANT OR CHILD SEAT SHOULD NEVER BE PLACED IN THE FRONT PASSENGERS SEAT. VEHICLES EQUIPPED WITH AIRBAGS CAN INJURE OR KILL CHILDREN IN THIS LOCATION IF AN ACCIDENT OCCURS.

When using seatbelts, always take up any slack belt by pulling the excess strap through the adjusting system. Unlatch the belt by pushing the button on the buckle.

## **SEAT BELT MAINTENANCE**

SEAT BELT ASSEMBLIES SHOULD BE PERIODICALLY INSPECTED TO ASSURE THAT THEY HAVE NOT BECOME DAMAGED AND THAT THEY REMAIN IN PROPER OPERATING CONDITION, PARTICULARLY IF THEY HAVE BEEN SUBJECTED TO SEVERE STRESS.

#### **SEAT BELT MOUNTING**

All seat belts are mounted per FMVSS (Federal Motor Vehicle Safety Standards) requirements and should never be relocated. Anyone who relocates a seat belt accepts full responsibility of its consequences.

#### FIRE SAFETY

Prevention is the best form of fire safety. Carefully follow the instructions for the care and operation of the various appliances in your vehicle (see appropriate sections).

Follow the same basic rules of fire prevention that you use at home. DO NOT SMOKE IN BED. DO NOT OVERLOAD THE ELECTRICAL SYSTEM. DO NOT PERMIT CHILDREN NEAR THE LP GAS CONTROLS OR CONTAINER. DO NOT STORE FLAMMABLE LIQUIDS INSIDE THE UNIT.

Carry-over your fire preparedness from home to your RV by having a pre -planned escape route. BE SURE EVERYONE KNOWS WHERE THE EMERGENCY EXITS ARE LOCATED AND HOW THEY OPERATE.

Your RV has been equipped with a fire extinguisher. MAKE SURE EVERYONE KNOWS WHERE IT IS LOCATED, HOW TO OPERATE IT AND WHAT TYPES OF FIRES IT IS DESIGNED TO HANDLE.

Check the extinguisher on a regular basis to make sure it is charged.

#### SMOKE DETECTOR

All units are equipped with a smoke detector. Check its operation on a regular basis. If it does not check properly, get is serviced or replaced prior to using the coach again.

NOTE: IF A FIRE DOES START WITHIN THE UNIT, GET ALL OCCUPANTS OUT IMMEDIATELY. IF IT IS A SMALL FIRE, USE THE FIRE EXTINGUISHER. IF THE FIRE IS NOT QUICKLY PUT OUT, GET OUT OF THE VEHICLE. CONTACT THE FIRE DEPARTMENT. IF POSSIBLE, CLOSE THE LP GAS SERVICE VALVE. MOVE A SAFE DISTANCE FROM THE VEHICLE.

## **CARBON MONOXIDE SAFETY**

Carbon Monoxide is a colorless, odorless, tasteless gas, which can be fatal if a high concentration builds up in a sealed area over a period of time. Carbon Monoxide is a by-product of burning fuel, and is found in high concentrations in exhaust from gas burning engines. A water heater or furnace operating improperly can also produce Carbon Monoxide. Under normal conditions your coach should be free from Carbon Monoxide at any given time. Due to the safety hazards of Carbon Monoxide (CO), each Gulf Stream motor home is equipped with a CO Detector.

Carefully read the instructions included with your CO detector to ensure proper use and maintenance. Most CO detectors require only occasional dusting and weekly testing. DO NOT use any type of cleaner when dusting your CO detector. Doing so may render the unit useless without warning.

Carbon Monoxide is often confused with illness such as "flu like symptoms". (Headaches, Nausea, Dizziness). Such symptoms should be discussed with all vehicle occupants. RV certified CO detectors will sound an alarm if 100 PPM (parts per million) of CO is present within 90 minutes. 50 PPM is allowed in a work place for up to 8 hours. Cigarette smoke contains about 5 PPM Carbon Monoxide.

If your CO alarm sounds, exit the vehicle immediately. After exiting the vehicle take a head count and make sure everyone is accounted for. Air out the vehicle and check again to ensure that the alarm came from the CO detector, as your vehicle is also equipped with a smoke detector and LP gas detector (optional). Following instructions included with your CO detector is recommended.

## LP GAS SAFETY



WARNING: SHUT OFF ALL LP GAS SYSTEMS BEFORE FILLING THE GASOLINE TANK. LP appliances should never be operated while the vehicle is in motion. If the pungent odor of LP gas is detected, immediately shut off the LP gas valve and check the LP gas label for further instructions. Your unit may be equipped with an LP gas leak detector that will help you detect the presence of LP gas. However, this detector should not be relied upon solely; if you detect the smell of LP gas, shut off the gas valve immediately. Check other sections of this manual for more information on the LP gas system.

## **GASOLINE TANK SAFETY**



WARNING: MODERN FUEL SYSTEMS MAY BUILD UP VAPOR PRESSURE WITHIN THE GASOLINE TANK AS THE GASOLINE WARMS DURING VEHICLE USE AND DURING HOT WEATHER. UNDER CERTAIN CONDITIONS THE SUDDEN RELEASE OF THIS BUILT-UP PRESSURE BY THE REMOVAL OF THE GASOLINE CAP CAN SPRAY GASOLINE FROM THE FILLER OPENING, CREATING A POTENTIAL HAZARD. WHEN REMOVING THE GASOLINE FILLER CAP, ROTATE IT SLOWLY TO ALLOW ANY INTERNAL PRESSURE TO BE SLOWLY RELEASED. AFTER THE "WHOOSH" OF THE RELEASED PRESSURE PASSES, COMPLETELY REMOVE THE CAP. ALWAYS REPLACE A LOST GAS CAP WITH A CAP OF THE SAME DESIGN TO FORESTALL ANY ADDED PROBLEMS. NEVER MODIFY OR REMOVE YOUR VEHICLES GAS TANK OR ATTACHES HOSES.

## **VEHICLE LOADING**

## **CARRYING CAPACITY**

During the design and development of our motor homes, the number and size of storage compartments and the liquid tank capacities are maximized for value and convenience. If the motor home operator fills all liquid tanks to capacity, fills all storage compartments and cupboards to maximum volume and fills all available seat belt positions with passengers, the motor home will probably be overloaded. According to National Highway Traffic Safety Administration figures, an average vehicle occupant weighs 154 pounds, each gallon of gasoline weighs six (6) pounds, a gallon of diesel fuel weighs 7.1 pounds and each gallon of water weighs over eight (8) pounds. The operator is responsible for analyzing the conditions in which the motor home will be utilized for each trip, and ensuring the vehicle is not overloaded. Also be careful of the weight distribution of cargo placed in the vehicle or the exterior compartments. While the chassis and motor home is designed to sustain a certain amount of side to side or front to rear weight differences, too much cargo placed at the rear or on either side will have an effect on vehicle handling.

The number of passengers and placement of cargo will affect the amount of water and cargo that you can carry. The passenger capacity will vary depending on whether the vehicle is being used for overnight camping or day use. A smaller passenger capacity for camping will provide a reasonable cargo capacity for trips taking more than one day. The passenger capacity for day use can be larger providing that less cargo is carried for trips and activities not involving overnight stays. It may be necessary to reduce the amount of water carried and unload some cargo items normally carried for camping in order to provide carrying capacity for the additional one (1) day use passengers.

Thoughtful consideration of the weight placed in the motor home can yield important benefits:

- Maximum flexibility in the use of the liberal storage facilities provided in the motor home;
- Improved handling characteristics and ride comfort;
- Better fuel mileage and reduced tire wear.

Periodically reweigh your motor home. Different traveling configurations may change your loading and weight pattern.



WARNING: DO NOT EXCEED THE RATED LOAD OF THE MOTOR HOME OR THE RATED LOAD OF ANY AXLE!

NOTE: THE CARRYING CAPACITY OF YOUR MOTOR HOME CAN BE DETERMINED BY WEIGHING, AS SHOWN IN FIG. 3 ON PAGE 12. IF YOU TOW A TRAILER, THE TONGUE WEIGHT OF THE TRAILER MUST BE SUBTRACTED FROM THE TOTAL OF THE PASSENGER AND CARGO CARRYING CAPACITIES.

Notice: Empty all holding tanks before filling fresh water tank otherwise you will limit cargo and/or passenger capacity. Normally, campgrounds supply free dump stations which can be utilized.

#### **LOADING TIPS**

After you have determined how much weight you can safely carry and selected those items to make up that weight, make a list and keep it for future reference. Load the motor home and distribute the load so that you get proper weight and weight distribution on the axles. Do not load upper cabinets with heavy items. Secure and brace items so they won't move during travel, thereby shifting the load in the motor home. Do not load heavy items near either end of the motor home or on the rear bumper. Adjust cargo storage to keep the side to side wheel loads as equal as possible. Carry only as much water as needed for travel use or to balance the load. Always empty your waste water and sewage holding tanks before traveling. Fresh water may need to be offloaded to obtain the best weight distribution.



WARNING: DO NOT INSTALL ANY TYPE OF WEIGHT CARRYING RACK OR FRAME TO THE REAR BUMPER OR ANY CHASSIS OR BODY COMPONENT OF THE MOTOR HOME. DAMAGE TO THE MOTOR HOME AND UNSTABLE HANDLING CHARACTERISTICS MAY RESULT.



WARNING: EXCEEDING THE GAWR, GVWR, OR GCWR OF YOUR MOTOR HOME CAN CAUSE UNDESIRABLE HANDLING CHARACTERISTICS AND MAY CREATE A SAFETY HAZARD. MODIFICATION OF YOUR VEHICLE BY ADDITION OF RACKS NOT SPECIFIED BY THE MANUFACTURER TO CARRY ADDITIONAL EQUIPMENT OR VEHICLES IS NOT RECOMMENDED, MAY CREATE A SAFETY HAZARD, AND MAY VOID YOUR WARRATY.

Make a loading diagram of your properly loaded motor home. It will help you locate where specific items are stored, and will help speed the loading process. Store emergency items in a readily accessible location. Include tools, first-aid kit, rain gear, flashlight, highway warning devices, and an electric cord or light.

The difference between the empty weight and the weight of the motor home in traveling configuration is your usable load. If the loaded weight of your motor home exceeds the GVWR or the weight on any axle exceeds that axle's GAWR, the motor home is overloaded and you'll have to remove items to bring the weight down to or below the GVWR and GAWR.

All items must be considered for their weight and stored according to how heavy they are. Heavy items should be placed close to the floor and in the center of the vehicle. DON'T FORGET TO INCLUDE THE ITEMS YOU PURCHASE ON YOUR TRIP.

Luggage and similar cargo carried inside the vehicle must be secured to prevent possible damage in the case of a sudden stop or an accident. It is no good to survive the initial impact of an accident to be hit on the head by a flying object from inside your vehicle.

## **MANUFACTURER'S LABELS**

Your vehicle is equipped with several federally required labels pertaining to the vehicle's weight, load capacity and operating limitations.

On the wall above or next to the driver is the federal tag that lists the unit's manufacturer's serial number, the front and rear GROSS AXLE WEIGHT RATING (GAWR), the vehicle's GROSS VEHICLE WEIGHT RATING (GVWR), tire and wheel rim sizes, tire operating pressure, and the VEHICLE IDENTIFICATION NUMBER (VIN). (FIG.1)

MFD BY / FABRIQUE PAR: GULF STREAM COACH,	INC.		REFER	TO TRIP PLANNER FOR MAXIMUM VEHIC	LE LOADING	
DATE OF MFG/FABRIQUE DATE - GULF STREAM 01/27/10	INC. VEH.		DATE OF MFG/FABRIQUE Oct-09	9299 KG (20500 LB)		
PNBE AVANT / GAWR FRUNT 3402 KG (7500 LB)	PNEU / 245/70	/ TIRE	JANTE / RIMS 19.5X6.75	PRESS DE GUNFL A FROID/COLD INFL PRESS 620 KPA (90 PSI)	SINGLE DUAL	
PNBE INTERM. / GAWR INTERM. N/A	PNEU / TIRE N/A		JANTE / RIMS N/A	PRESS DE GUNFL A FROID/COLD INFL PRESS N/A	SINGLE DUAL	
PNBE ARRIERE /GAWR REAR 6124 KG (13500 LB)	PNEU / 245/70	R19.5	JANTE / RIMS 19.5X6.75	PRESS DE GONFL A FROID/COLD INFL PRESS 620 KPA (90 PSI)	SINGLE DUAL	
THIS VEHICLE CONFORMS TO ALL AP THIS VEHICLE CONFORMS TO ALL A	PLICABLE FEDER PPLICABLE STAN - CE VEHICULE E	IAL MOTOR VEH NDARDS PRESE IST CONFORME	HICLE SAFETY STANDARDS IN CRIBED UNDER THE CANADIAN A TOUTES LES NORMES QUI	I MOTOR VEHICLE SAFETY REGULATIONS LUI SONT APPLICABLES EN VERTU DU REGLEMENT	I MPV	
Y.I.N. / N.I.V. 1F6NF53Y390\	70	Serial No / No de serie 58-0-A-82591-12				
		B/C	- Mariana			

(FIG. 1) FEDERAL ID TAG

CONSULT OWNER I				INFORMAT		D TOWING	GUIDELINE	S.				
	WFD	1	kilograms	pounds		kilograms	pounds	ļ				
SERIAL# 3	352	GCWR	16327	36000	GVWR	14059	31000					
UVW 12067 26608												
					NCC	1992	4392					
CARGO CARRYING CAPACITY (CCC) INFORMATION  Your carrying capacity is affected by everything put into your motorhome. Use this chart to support your travel needs.												
Added weight Adjusted CCC*												
gallons kilograms pounds kilograms pounds												
Fresh water @ 8.3 lb/ga	Fresh	water	100	376	830	1615						
LP-Gas @ 4.5 lb/ga	LP.	tank	33	68	150	1547	3412					
People @ 154 lb/eacl		Occupant		70	154	1477	3258					
	2	Occupants		140	308	1407	3104	ŀ				
	3	Occupants		210	462	1337	2950					
SCWR	4	Occupants		280	616	1267	2796	= CCC*				
" Weights are est  GWWR (Gross Vehicle Weight  UVW (Unloaded Vehicle We coolants.  NCC (Net Carrying Capacity  CCC (Cargo Carrying Capac  water heater), full LP-C	Rating) is the ght) is the we is equal to t ity) is equal t as weight, as	maximum peight of this not the GVWR more of the GVWR and SCWR.	permissible was notorhome a inus the UV	reight of this s manufactur N. of the follow	fully loaded red at the fa ing: UVW, f	motorhome. ctory with full ull fresh (pot	I fuel, engine	(including				
SCWR (Sleeping Capacity We (70 kilograms).	-											
GCWR (Gross Combination W loaded weight of this rr					ne manutac	turer as the	maximum ai	IOWADIE				

(FIG. 2) WEIGHT INFORMATION LABEL

## WEIGHT DEFINITIONS

GAWR: The allowable weight, INCLUDING CARGO AND PASSENGERS, which can be SAFELY supported by a specified axle.

GVWR: The maximum permissible weight of your vehicle, INCLUDING CARGO, ALL OPTIONS, PASSENGERS, GASOLINE AND WATER.

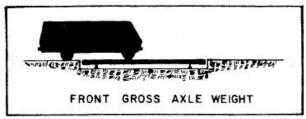
GCWR: The maximum permissible weight of your fully loaded vehicle including the weight of any towed vehicle or trailer.

NCC: The net cargo capacity of the vehicle as equipped by Gulf Stream. This does not include water.

## WEIGHT LIMITATIONS, WEIGHT DISTRIBUTION AND VEHICLE HANDLING

The total amount of weight carried by your vehicle is extremely important. It is critical that you weigh your vehicle prior to taking a trip in order to determine if you are within the weight limitations of the vehicle's suspension. While each vehicle is custom made and may have different handling characteristics than the other, most operators will find that a front to rear weight distribution of 35/65 (Front axle 35% of total loaded vehicle weight with passengers and rear axle 65% of total loaded vehicle weight) will provide a good vehicle handling experience. These ratios will vary according to options, chassis design and end user installed equipment. Vehicle handling is affected by weight placement. Some owner's may wish to enhance vehicle handling by the addition of shocks, upgraded anti-sway bars, air suspensions, steering stabilizers, etc. These items are user preference items and are not necessary for the safe operation of this vehicle as equipped by Gulf Stream. Vehicle handling is also greatly affected by proper tire air pressure. One or more tires low on air may cause the vehicle to wander and/or sway in a dangerous manner. CHECK THE WEIGHTS. CHECK THE TIRE PRESSURE IN RELATIONSHIP TO THE WEIGHT. See the Federal Sticker for the needed information (FIG. 1).

## THE METHOD OF WEIGHING YOUR VEHICLE







(FIG 3.)

There are many locations where you can weigh your vehicle, including grain elevators, scrap iron businesses, sand and gravel dealers and state and federal weight stations (usually listed in phone directory).

NOTE: BE SURE TO WEIGH THE VEHICLE WITH EVERYTHING IN IT INCLUDING PASSENGERS, CARGO, FULL LP, AND GASOLINE.

The procedure for weighing is as follows (unless modified by the weighmaster):

- 1. Drive only the front axle of the unit onto the scale. Have the weight master note this weight.
- 2. Drive forward and place both front and rear axles onto the scale. Have the weigh master note this weight.
- 3. Drive forward until only the rear axle is on the scale. Have the weight master note this weight.

NOTE: COMPARE ALL WEIGHTS WITH THOSE LISTED ON THE FEDERAL ID STICKER.

If any weight exceeds the listed rating, relocate the passengers and redistribute or remove a portion of the cargo until the weight is within the proper limit as listed on the Federal ID Sticker and for which the vehicle has been engineered.

NOTE: DO NOT FORGET THAT WATER USED FROM THE FRESH WATER SUPPLY GOES INTO THE WASTE WATER HOLDING TANK. IF YOU REFILL THE FRESH WATER TANK PRIOR TO DUMPING THE WASTE WATER, THE WEIGHT OF THE VEHICLE IS SUBSTANTIALLY MORE THAN WHEN YOU WEIGHED IT AT THE START OF YOUR TRIP.

#### **USEFUL WEIGHTS**

Water	8.1 pounds per gallon	Gasoline	6.0 pounds per gallon
Propane	4.23 pounds per gallon	Diesel fuel	7.1 pounds per gallon

## **WEIGHT DISTRIBUTION FORMULAS**

When loading cargo or installing/towning any equipment (tow dolly, racks, etc) behind the rear axle, you must take into consideration the cantilever effect that weight has on both axles. For example, a 100 pound item added five (5) feet behind the rear axle will add more than it's actual weight to the rear axle and will actually remove weight from the front axle. Prior to the addition of any heavy cargo or equipment, you will need to know your vehicle's wheelbase, the weight of the equipment and how far behind the rear axle it will be placed/installed.

Example: A motorcycle is hung on the rear bumper of an RV. It is 144 inches behind the rear axle. Divide the 144 by the vehicle's 178 inch wheelbase and you find that the motorcycle equals 80 percent more than its actual weight....in other words it acts on the vehicle as though it weighs 180 percent on the rear axle. THE EXCESS OF 100 PERCENT IS TAKEN OFF THE FRONT AXLE.

If the motorcycle weighs 300 pounds it acts on the RV rear axle as though it weighs 540 pounds! Two hundred forty pounds is also taken off the front axle.

Thus, you can see why the addition of any rack or component to the rear of the vehicle will have an adverse affect on the driving characteristics.



# AIR BAG AND SUSPENSION MODIFICATION WARNING:

GULF STREAM COACH, INC. DOES NOT APPROVE THE USE OF AFTER MARKET SUSPENSION AIR BAGS OR THE ADDITION OF SUSPENSION LEAF SPRINGS ON ITS VEHICLES. THESE ITEMS, WE HAVE DETERMINED, DO NOT PROPERLY SUPPLEMENT THE SUSPENSION. INSTEAD, THEY INTERFERE WITH THE RIDE AND HANDLING OF MOTOR HOMES ENGINEERED BY THE CHASSIS MANUFACTURER AND CAN BE DESTRUCTIVE TO THE VEHICLE AND INTERFERE WITH ITS ROAD HANDLING CAPABILITIES.

DO NOT USE SUPPLEMENTAL AIR BAGS OR SPRINGS ON YOUR MOTOR HOME! IF SUPPLEMENTAL CAPABILITY FOR THE SUSPENSION IS DESIRED, YOU ARE ATTEMPTING TO CARRY MORE CARGO THAN THE VEHICLE WAS DESIGNED FOR. UPGRADING WITH ADDITIONAL SPRINGS, HIGHER CAPACITY SHOCK ABSORBERS, OR COIL-OVER SHOCKS WILL ALSO VOID YOUR WARRANTY. ALWAYS BE MINDFUL THAT YOUR VEHICLE WAS DESIGNED FOR THE MAXIMUM WEIGHT TO CARRY. MORE WEIGHT IS DANGEROUS AND SHOULD BE AVOIDED. ANY FACTORY APPROVED MODIFICATION MUST BE IN WRITING!

WE CANNOT APPROVE ANY AIR BAG INSTALLATION OR OTHER SUSPENSION MODIFICATION. BEFORE MODIFYING YOUR SUSPENSION, TALK TO YOUR CHASSIS DEALER. AVOID CAUSING POSSIBLE DAMAGE TO YOUR MOTOR HOME.

## DANGERS OF OVERLOADING

One of the attractive selling points of the GULF STREAM is the abundance of storage, both inside and outside the vehicle. However, there are limits to what the vehicle can carry as shown above.

When preparing for a trip and while on your travels, always be mindful of WHAT YOU ARE STORING, HOW MUCH IT WEIGHS AND WHERE YOU ARE STORING IT. BEWARE OF OVERLOADING.

In addition to causing premature wear, overloading can cause problems in the area of handling characteristics. An overloaded vehicle will take longer (time and distance) to stop in an emergency. Overloading can also cause added wear to components such as tires, wheel bearings, transmission and engine. Overloading can also cause overheating it in some instances.

The solution? Stay on top of your vehicle weight situation at all times. Know where you stand when it comes to the GVWR, GAWR and GCWR.

## **VEHICLE OR TRAILER TOWING**

Prior to towing any vehicle or trailer behind your motor home, consult your chassis owner's manual towing guide and refer to the GCWR listed in your motor home (see FIG. 2). Determine what type of special equipment is needed to tow safely with your motor home. Sway control devices, weight distribution hitches and trailer brakes are required for towing any trailer weighing over 1000 pounds or with a tongue weight of more than 150 pounds.

Be sure that your vehicle's GROSS COMBINED WEIGHT RATING (GCWR) has a rating capable of towing your vehicle or loaded trailer while your motor home is loaded.



WARNING: DO NOT EXCEED THE TOW RATING OF THE HITCH INSTALLED ON YOUR MOTOR HOME.



WARNING: DO NOT REPLACE THE OEM HITCH WITH A HIGHER TOW RATED HITCH! THE HITCH INSTALLED REPRESENTS THE MAXIMUM ALLOWED TO BE TOWED BY THIS VEHICLE. TOWING WEIGHTS IN EXCESS OF THIS VEHICLES LIMITATION CAN RESULT IN AN ACCIDENT, POSSIBLY CAUSING INJURY OR DEATH.

IMPORTANT: The towing vehicle's braking system is rated for the operation at GVWR (Gross Vehicle Weight Rating), NOT at GCWR (Gross Combined Weight Rating). Towing capacity may vary by chassis model, floor plan, options, and loading of vehicle. This may result is a towing capacity which is less than the maximum capacity of the hitch. Do not exceed the vehicle's GCWR or the hitch rating. A separate functioning brake system is required for any towed vehicle or trailer weighting more than 1,000 pounds (450 kg) when fully loaded.

## VEHICLE WEIGHT INFORMATION LABEL

All GULF STREAM vehicles have a weight information label posted inside the kitchen cupboard (See Fig. 2). Please refer to this label to see the shipping weight of your vehicle and the net carrying capacity of your water tank. This label also contains the GULF STREAM designated GCWR. Please note that the GULF STREAM GCWR may differ from the chassis designated GCWR, and that the lower of the two must be followed.

The vehicle weight information label also contains the net carrying capacity. This is the maximum weight designated by GULF STREAM that can be utilized for cargo and passengers. Any addition of accessories by you or the dealer reduces this amount proportionally with the weight of added accessories.

## **TIRES**

The tires installed on your vehicle have been pre-selected as the proper size and weight by the chassis manufacturer for the type and weight of the coach built. The Federal ID tag (Fig. 1) located inside the coach will show the proper tire size for your coach and the recommended air pressures. When replacing tires, make sure that those guidelines are followed.

#### TIRE MARKINGS

Sample tire size: LT225/75 R 16 E

• LT reflects the "Light Truck" usage. Light truck tires are used on anything from compact pickups to class A motor homes.

- 225 indicates the "contact patch" width. The contact patch is the amount of tire surface that actually comes into contact with the pavement. In this case the width is 225 millimeters wide.
- 75 indicates the height to width ratio of the tire.
- R identifies the construction type of the tire. R Radial, B Bias belted, D Diagonal Bias. Some tires may have a speed designation label in front of the construction type. Example MR tires are rated for use up to 81 mph. SR tires up to 112 mph. ZR tires carry the highest speed rating, and are safe for speeds over 150 mph. However, ZR tires should never be installed on any motor home or travel trailer. If no speed rating is listed on the sidewall, the maximum speed for light truck tires is 87 mph, and for passenger cars 105 mph.
- 16 is the rim size. This is the only measurement made in inches.
- E is the load range.

## **TIRE LOAD RATINGS**

Load ratings for tires go up as the corresponding letter changes. For example, load range "E" tires have a heavier rating than load range "D" tires. Load capabilities of tires change as the psi (air pressure) is lowered. As much as 220 lbs. of load carrying capacity is lost per tire for each 5 psi below the recommended inflation. This decreased load amount varies from one tire manufacturer to the next, therefore it is recommended that you contact your tire manufacturer for further information in this regard.

## TIRE AIR PRESSURE



WARNING: PROPER TIRE AIR PRESSURE IS CRITICAL FOR SAFE OPERATION OF THIS VEHICLE! IT IS REQUIRED THAT THE TIRE AIR PRESSURE IS CHECKED PRIOR TO EACH USE OF THIS VEHICLE.

When checking air pressures, if the tire has been driven more than 6 miles, you can add 4 to 6 psi to the rated maximum "cold" inflation recommendations. For example, if the tire has a maximum rating of 90 psi cold, you can inflate the tire to 96 psi after being driven on. Under inflation generates excessive heat (a tire's worst enemy!), increases tread wear in the shoulder area, and reduces your vehicle's fuel economy.

Never mix radial, bias belted or bias type tires. Never mix brands. This can adversely affect vehicle handling and stability. Use only the tire size that is listed on the Safety Compliance Certification Label. If you have a question about the label, please call Gulf Stream.

The tire inflation tables provided by Goodyear and Michelen are shown at the end of this manual and are for general purposes only. These tables will show how the load carrying abilities of your tires vary according to air pressure settings. Please refer to the Federal tag (FIG. 1) for proper tire air pressure for your motor home.

## TIRE MAINTENANCE

When cleaning tires, try to use a tire-cleaning agent. Never use any cleaner that contains solvents. Solvents will draw oil from tires and cause them to prematurely crack. Inspect your tires prior to each trip, looking for bulges or cracks in the sidewalls.

When storing your recreational vehicle for long periods of time, you should completely unload the vehicle so that a minimum weight will be placed on the tires. Make sure the tires are inflated to the recommended operating inflation pressure. Avoid moving the vehicle during extremely cold weather. Move the vehicle at least every three months to prevent ozone cracking in the tire bulge area as well as "flat spotting" from prolonged strain of sidewall and tread deflection. Make sure you check the inflation and adjust to the recommended operating pressure before putting the vehicle back into service.

Tire life expectancy varies. Some tires reach their life expectancy and may need to be replaced in as little as six years regardless of tread wear. Please refer to the tire manufacturer for recommendations in regard to tire life expectancy.

## **EMERGENCY TOWING OF THE MOTOR HOME**

Extreme care must be taken in the event the unit must be towed as a result of a break down or accident. The motor home should only be towed by a professional towing company.

NOTE: THE USE OF A "DOLLY" TYPE TOW DEVICE THAT TOWS THE VEHICLE WITH ITS FRONT WHEELS SECURED ON A SMALL PLATFORM FITTED WITH ITS OWN SET OF WHEELS, OR A WHEEL-LIFT TOWING DEVICE THAT CARRIES THE MOTOR HOME'S FRONT WHEELS IN A "CRADLE" OR "SLING" ARE THE ONLY METHODS RECOMMENDED. USING OTHER METHODS MAY CAUSE SEVERE DAMAGE TO THE MOTOR HOME. PLEASE REFER TO YOUR CHASSIS MANUAL FOR FURTHER DETAILS ON TOWING PROCEDURES.

## **DAY-TO-DAY OPERATION**

#### **DRIVING TECHNIQUES**

With just a few miles under your belt, you will find that your new GULF STREAM handles much differently than a typical car or truck. You must take into consideration that the vehicle is much longer, higher and heavier than any car or light truck.

Always be mindful of your vehicle's height when approaching underpasses, awnings, parking garages, drive-in facilities (banks, food, fuel) and carport-type overhangs. Remember: your vehicle's height can be different than what the manufacturer lists depending upon any additions you have added to your roof.

NOTE: WHEN APPROACHING AN OVERHANG THAT IS APPROXIMATELY THE SAME HEIGHT AS YOUR UNIT, USE EXTREME CAUTION. PAVEMENT DIPS/RISES AND NEW LAYERS OF ROAD SURFACE CAN MAKE OLD CLEARANCE SIGNS OBSOLETE. "WHEN IN DOUBT...STAY OUT."

## **GROUND CLEARANCE**

Just as overhangs can produce problems, so do dips and rises in pavement. Be extremely cautious when entering and leaving the main roadway (drives, parking lots, side roads, etc.). Become familiar with the rear overhang characteristics of your individual unit. This will help you avoid damage to the undercarriage behind the rear axle. The nature of your unit is such that you will not be able to access as many areas as easily as you would in a car.

#### WARM WEATHER/HIGH ELEVATION OPERATION

Although Gulf Stream vehicles are designed and tested in a variety of hot and cold situations, you must take precautions when driving in hot weather or high elevations. Always read your chassis owner's manual section on driving techniques. When driving in hot weather, keep your engine speed up, not your road speed. In other words, as the coach slows down, manually downshift the engine. This will keep the engine rpm's up and the coolant flowing at a high rate at all times. On diesel models, by shifting from sixth gear down to fourth gear on uphill climbs you can decrease your engine temperature by up to 15 degrees (depending on humidity and road conditions), and yet you can still maintain 55 mph if your load or the road allows.

Aside from driving habits, always make sure that your radiator is clean of debris and bugs. Using a power washer to clean out your radiator will noticeably increase its cooling capacity. Also make sure that the coolant is a 50/50 mixture of antifreeze/coolant and water. Adding more coolant than water will not increase the cooling capacity of the radiator. Engine coolant is formulated to provide optimum cooling at an equal 50/50 mixture. Driving in higher elevations (above 5,000 ft) will allow your coolant to boil at a lower temperature.

## **DRIVER CONTROLS**

Your chassis operator/owner manual will contain most information of driver controls such as Tilt steering, cruise control, dash instruments, transmission gear selection, braking, and other essential driving functions. Please review your chassis manual thoroughly, and familiarize yourself with all chassis controls before your initial trip.

#### **BRAKES**

As mentioned previously, your vehicle is much larger than an automobile and, though equipped with well-engineered brakes, is likely to take more distance to stop than you have been accustomed to in the past with autos. Learn how quickly your vehicle will stop from your normal cruising speed with the loads you carry. Become familiar with the amount of pressure that it takes to "lock-up" the brakes in a "panic" stop.

NOTE: EVEN MODERN DISK BRAKES WILL NOT STOP A VEHICLE INSTANTLY IF THEY HAVE BEEN SUBMERGED IN WATER. BE CAREFUL WHEN DRIVING IN FLOODED CONDITIONS. "PRE-DRY" BRAKES PRIOR TO THEIR BEING NEEDED BY LIGHTLY PRESSING DOWN ON THE BRAKE PEDAL AND ENGAGING THE BRAKE PADS AND SHOES TO GET RID OF EXCESS WATER AND WARM THE BRAKING SURFACES. EXTREME CAUTION IS ALSO NEEDED IF ONLY ONE SIDE OF THE VEHICLE'S BRAKING SYSTEM HAS BEEN FLOODED. IF A STOP IS NEEDED THE VEHICLE COULD VEER TO THE SIDE THAT IS DRY (THE BRAKES ON THAT SIDE OF THE VEHICLE ARE WORKING MUCH BETTER THAN THE WET SIDE).

If you notice that the brakes get "mushy", take your unit to your nearest dealer for inspection. Unusual sounds during braking may indicate a problem. Have your dealer check the braking system. Read your chassis owner's manual for further information on your particular braking system and its care.

## **ANTI-LOCK BRAKING SYSTEMS (ABS)**

Vehicles equipped with optional Anti-Locking Brakes have braking characteristics much different than vehicles without. Anti-Lock Brake equipped vehicles have a system that senses wheel movement when braking. While depressing the brake pedal, if wheel movement stops while the speedometer still shows that the vehicle is moving, the Anti-Lock brake system literally "pumps" your brakes hundreds of times per second to allow proper braking. A spinning, braking wheel will stop your vehicle quicker (time and distance) than a skidding wheel. Manually pumping your brakes in this situation will adversely affect the Anti-locking brake system and will actually cause a longer stopping distance than using ABS in the proper manner. Refer to your chassis owner's manual for ABS braking techniques.

If your ABS dash indicator light illuminates have your vehicle serviced immediately. Call your chassis manufacturer first if you have to operate your vehicle while the ABS dash light is on.

## PAC BRAKES AND JAKE BRAKES (OPTIONAL)

Pac brakes and Jake Brakes are sometimes utilized on diesel chassis to limit the engine and transmissions power output for extra assistance in slowing down your coach. Both are good systems and are recommended if you feel you need to supplement your existing braking system to reduce wear. Otherwise, down-shifting the transmission within the vehicle's limits is the next best way to reduce wear on your brakes (Pac Brakes and Jake Brakes will down-shift for you). Please contact your chassis manufacturer for further information on these systems.

## **DASHBOARD INSTRUMENTS**

While driving, always be attentive to your vehicle's dash instruments. These instruments are designed to warn you of any problem or potential problem with the vehicle. If a warning light does come on, check under the hood for possible problems. Refer to your chassis operator's manual for instructions on diagnosing the problem or contacting help It is best to stop the vehicle at once if any warning light appears. Reduce your speed immediately by lifting off of the throttle. CHECK THE TRAFFIC BEHIND YOUR UNIT. Don't apply the brakes too rapidly. SIGNAL YOUR INTENTIONS. Quickly, safely pull off to the side of the roadway onto a safe, solid shoulder area. Make sure the

vehicle is out of the flow of traffic as much as possible. Shut down the motor. Place transmission into PARK and apply the PARKING BRAKE. Put on your emergency flashers and investigate the problem.

NOTE: IT IS A GOOD PRACTIVE TO PLACE FLARES AT INTERVALS SEVERAL YARDS BEHIND THE VEHICLE, ESPECIALLY IF YOU HAVE STOPPED AT A HILL, CROSSING OR CURVE. STAND-UP TRIANGULAR REFLECTORS ARE ALSO QUITE WORKABLE. IF THE VEHICLE IS STOPPED JUST OVER THE RISE OF A HILL OR JUST PAST A CURVE, PLACE FLARES OR REFLECTORS OVER OR AROUND THE OBSTACLE TO WARN ON-COMING TRAFFIC IN PLENTY OF TIME FOR THEM TO SLOW DOWN PRIOR TO REACHING YOUR STOPPING POINT.

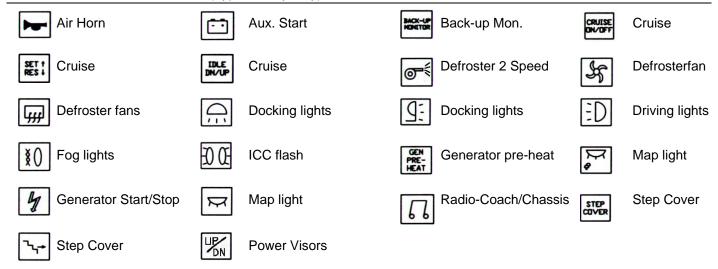


WARNING: NEVER ATTEMPT TO OPEN A RADIATOR CAP WHEN THE ENGINE IS OVERHEATED OR EVEN AT NORMAL OPERATING TEMPERATURE. THIS WILL RESULT IN AN "EXPLOSION" OF BOILING COOLANT FROM THE RADIATOR OPENING THAT CAN RESULT IN SERIOUS INJURY TO ANYONE STANDING NEARBY. STAY AWAY FROM ANY STEAM ESCAPING FROM SPLIT HOSES, FAILED GASKETS OR LOOSE CLAMPS. WHEN THE VEHICLE HAS COOLED, THEN ATTEND TO THE PROBLEM.

## **UNUSED DASHBOARD SWITCH LOCATIONS**

As a result of the optional equipment available on our extensive line of vehicles, each unit is somewhat different than other units built with the same standard dashboard. Therefore, on some RV models certain dashboard switch locations will not have a switch installed. You may wish to order matching switches from your dealer to use as you add accessories to your coach.

## **DASH SWITCH SYMBOLS** (Typical, may vary)



## STARTING AND VEHICLE WARM UP - GAS

Make sure surrounding area is clear of pedestrians. Never use "Starting Fluids" or "Ether" to assist in starting of the motor home. Check your chassis manufacturer's owner's manual for details on starting your vehicle.

## TURBO DIESEL OPERATING INSTRUCTIONS

Turbo charged engines and turbo chargers operate at very high temperatures, which provide the fuel efficiencies, high horsepower, and necessary emission standards. Because of this, the engine must be allowed to build up heat slowly and cool slowly to prevent expansion and contraction of internal engine and turbo charger components. This is accomplished by the following:

## **STARTING - DIESEL**

Once the engine starts, return the accelerator pedal to the idle position and let the engine idle for 3 to 5 minutes before applying a load. Refer to the diesel engine owner's manuals for further instructions.



WARNING: EXPLOSION HAZARD! NEVER USE ETHER OR OTHER STARTING FLUIDS IN THE ENGINE AIR INTAKE SYSTEM TO START YOUR ENGINE. PLEASE REVIEW YOUR CHASSIS/ENGINE MANUAL FOR PROPER STARTING INSTRUCTIONS.

## **SHUTTING DOWN - DIESEL**

If you have been driving at highway speeds, allow the engine to idle for 3 to 5 minutes before shutting it off. This allows the engine to cool gradually and uniformly. Refer to the diesel engine owner's manual for further instructions.

#### JUMP STARTING/EMERGENCY START SWITCH

As an option, some Gulf Stream motor homes are equipped with an Emergency Start Switch in the event your chassis battery goes dead and the vehicle won't start. If your vehicle has this optional feature, you will find the switch marked "Emergency Start" and it will be located on the dash or above the driver's side entry door on class C models. To utilize the Emergency Start Switch, make sure your "coach" or "house" batteries are fully charged and if possible start the generator or plug the coach into shore power. Then depress and hold the Emergency Start Switch for a few moments, then start the vehicle while still holding down the Emergency Start Switch. If the coach fails to start, please contact Coachnet or your roadside assistance provider.



WARNING: DUE TO THE COMPLEXITY OF THE DUAL BATTERY SYSTEMS INSTALLED IN THIS MOTOR HOME AND THE DAMAGE THAT CAN OCCUR FROM THEIR MISUSE, AND ALSO DUE TO THE GENERAL HAZARDS ASSOCIATED WITH "JUMP STARTING" AND/OR USING "JUMPER CABLES," GULF STREAM DOES NOT RECOMMEND THAT YOU ATTEMPT TO "JUMP START" THIS VEHICLE. PLEASE CALL ROADSIDE ASSISTANCE FOR THIS OPERATION.

## **COACH SYSTEMS**

## **SAFETY**

Your new vehicle has been provided with numerous safety features. Please review all features and familiarize yourself with their proper operation prior to using this motor home.

**EMERGENCY WINDOW EXIT**: All Gulf Stream vehicles are equipped with two exit paths from any sleeping area. One exit path is the entry door and the second exit path can be an emergency exit window or roof hatch. Inspect your motor home to find each emergency exit window or roof hatch. They will be identified by a red decal that reads "EXIT"

and will have a red handle on the window. Some emergency exit windows slide open to the side and some pop open from the bottom with a hinged top. Test your emergency exit windows for proper operation before each trip.

**FIRE EXTINGUISHER**: This is required equipment with all new Gulf Stream recreational vehicles and is usually located just inside side entry door. It is activated by pulling the ring-pin and squeezing the handle. Direct contents at the base of the fire. Read instructions on bottle. Check regularly to insure that charge is adequate.

**SMOKE DETECTOR**: Located in kitchen/dining area or between kitchen/dining area and sleeping areas. Sounds alarm if it detects smoke. Test regularly and replace battery at least twice a year. Consult smoke detector manual.

**LP GAS DETECTOR**: Located in kitchen/dining area near floor. Sounds alarm if it detects LP gas. Test regularly. Consult LP gas detector owner's manual. False alarms or "beeping" can be an indication of a low "coach" or "house" battery. Remember, LP gas is heavier than air and will float at floor level. DO NOT block your LP gas detector by leaving items lying in front of it on the floor.

**CARBON MONOXIDE (CO) DETECTOR**: Located in rear hall or sleeping area. Sounds alarm if it detects Carbon Monoxide at a dangerous level. Test regularly. Consult CO detector manual. Replace batteries at least twice a year.

**SAFETY BELTS**: Seats that are designated to be used while the vehicle is in motion are equipped with lap/shoulder belts. Flat metal section fits into buckle and locks, giving a distinctive "click." Unlock by pushing in button on buckle. Only travel in the motor home is a seating position with a seat belt. Only secure one (1) person per seat belt. Secure all children and child safety seats per your city, state or local government requirements.

**WARNING/HAZARD FLASHERS**: Activated by pushing in/back a button on steering column. Parking/turn signal lights flash on and off. Use when stopped for emergency on roadside. Some states have laws against driving with warning flashers on.

**EMERGENCY/PARKING BRAKE**: Activated by pushing down with foot the lever that is located on the left side of the steering column on gas models. On some diesel models, pulling out on the yellow air brake knob activates the brake. Consult chassis owner's manual

## **ELECTRICAL – CHASSIS AND HOUSE**

Your GULF STREAM is equipped with three (3) separate electrical systems that provide your vehicle with power on the road and in camp. A chassis 12 volt DC system, a coach ("House") 12 volt DC system and a 110 volt AC system are installed.

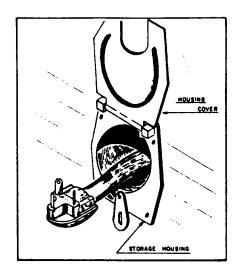
#### CHASSIS 12 VOLT DC SYSTEM

The chassis electrical system is a 12 volt DC system, which gets its power from the alternator installed on the engine by the chassis manufacturer. This system is entirely separate from any of the house battery systems except when the engine is running. When the engine is running, an isolator system allows the chassis battery and the house batteries to connect, which allows the engine to charge the house batteries. Please refer to your chassis owner's manual for assistance on any chassis electrical system.

## COACH/ HOUSE 12 VOLT DC SYSTEM

The house 12-volt system is used for running most interior lights and appliances. Even though your refrigerator has an option to run on 110-volts AC, the refrigerator circuit board uses 12 volt DC for it's operation. Also, the roof mounted air conditioner(s) are powered by 110-volts AC, but also need 12 volts DC to power the thermostats. The 12 volt DC power is provided by one or more "house" or "coach" batteries. The house batteries are charged by a convertor/charger when the motor home is plugged into shore power or when the generator is running. The house batteries are also charged by the engine's alternator while the chassis engine is running. Other items in the coach that run on 12 volt DC power include: water pump, water heater, furnace, slide out systems, powered vents, etc.

Like your home, the vehicle has a 110-volt alternating current (AC) system that requires an external source of 110-volt electricity. A shoreline connection (extension cord) or an optional electrical on-board power generator or an inverter can provide this power. In order to use your 110-volt electrical system, your shoreline (power cord) should be plugged into either a properly rated external power source or the generator should be running, or in some cases the inverter should be turned on. TO CONSERVE BATTERY POWER, USE OF THE SHORELINE IS RECOMMENDED WHENEVER POSSIBLE. (FIG. 5)





**Shoreline Ground Warning:** IF YOUR POWER SUPPLY IS NOT PROPERLY GROUNDED YOU MAY EXPERIENCE A DANGEROUS SHOCK WHEN STANDING ON THE GROUND AND TOUCHING A METAL PORTION OF THE MOTOR HOME. USE A CONTINUITY TESTER TO ENSURE PROPER GROUNDING.



Extension Cord Warning: DO NOT USE AN EXTENSION CORD WITH A CURRENT RATING LESS THAN THE AMPERAGE YOUR MOTOR HOME REQUIRES. EXTRA EXTENSION CORDS REDUCE THE AMPERAGE AND VOLTAGE BEING SUPPLIED TO THE RV AND MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS!

(FIG. 5) 110-V SHORELINE CONNECTION

## 30-AMP AND 50-AMP 110-VOLT SERVICE

30-amp service is 110-volt service limited to a total of 30 amps of draw. A large three pronged power supply cord identifies this type of power supply (FIG. 5). Each appliance in your vehicle is capable of working by itself with this type of service. However, you may not be able to operate all your appliances at the same time without causing a circuit breaker to blow.

A typical component in your vehicle such as a TV or VCR will draw only about 1 amp. Other items such as coffee makers and microwaves will draw 10-15 amps when used. Roof air conditioners usually draw the most, pulling up to 15 amps when the compressor is running. So as you can see, with 30 amp service, you can use only one air conditioner when hooked up to shore power even if your coach is equipped with two. The combined draw of two air conditioners may only be 29 amps, but other items in your coach such as converters, refrigerators, water heaters, etc. will put your draw over the 30-amp mark causing a circuit break. You may be asking yourself "Why then did Gulf Stream install two a/c's if I can only use only one at a time?" This is done so that you can direct more cold air to the front or rear of the vehicle if you desire. Plus, usually they both can be operated while using your generator.

30-amp service is the most common electrical service in the RV industry and can be found at most, if not all, RV campgrounds. This makes 30-amp service the most user friendly as far as availability. If your vehicle is equipped with 50-amp service, you will be able to run any installed appliance at any time when a 50-amp service park is available or you are running your generator.

50-amp service is also 110-volt service, but it is capable of running up to 50-amps of draw. Some people believe that 50-amp service is the same as having 220-volts of ac power. Yes, 50-amps of service does have 220-volts, but only 110-volts is capable of being supplied to any part of your system at any given time. A four pronged power cord that is very unique identifies 50-amp service, as two of the four prongs each carry 110-volts of ac power. 30-amp service has only one prong that carries 110 volts of ac power. Each of the 110-volt lines in a 50-amp cord supplies power to a designated part of your RV. In doing this, when ac powered components are installed they can be put on separate power feeds according to how much amperage they draw. One example of this method consists of installing two air conditioners for use at the same time. Each one is powered by a different power supply feed; therefore they both can be used simultaneously. Think of 50-amp service as having two shoreline power cords in one casing as opposed to only one in 30-amp service.

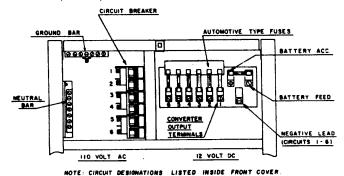
If you travel to an RV park that does not offer 50-amp service you will have to use an adapter to hook up to shore power. Use of an adapter is not recommended, but may not be avoidable. When using an adapter, remember that your coach will not have sufficient power to run as many options as with 50-amp service. You may be able to run both your air conditioners for a limited time; however, this will cause damage to both your ac units as well as other components by operating them on insufficient power.

Listed below are components that might be used in Gulf Stream vehicles and the maximum amperage draw each one has. Whether your power supply is 30-amps or 50-amps this chart may help you decide which components you can safely use for an extended period without damage.

Components	Amperage
Roof air conditioners (each)	15
Electric water heater	12
Microwaves	15
Hair dryer	2
Washer/dryer	10
Vacuum	5
TV	1.0
VCR	1.0
Engine block heater	10
Heart Inverter/Charger	22
Magnetek charger	14
Refrigerators	3.5
Space heaters	10-15
110-volt lamp	1.0

## **POWER CONVERTER**

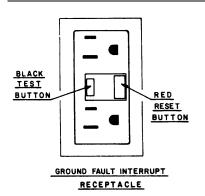
Your vehicle is equipped with an electrical power converter that changes 110-volt power to 12-volt power to run 12-volt powered appliances in your vehicle. It gets the 110-volt power by way of the shoreline or the optional generator. The power converter will be located either under the side of the rear bed, under the refrigerator or at the base of a cabinet (FIG. 6).



(FIG. 6) 45 AMP CONVERTER PANEL

The circuits in the vehicle are protected by circuit breakers and fuses. Locate the converter and see where the fuses are located. If you blow a fuse, turn off the appliance. Unplug the fuse. Check the fuse for breakage and replace it with a new fuse of the proper rating. If the fuse continues to fail, contact your nearest dealer. NEVER REPLACE A FUSE WITH A HIGHER RATED FUSE THAN WHAT IS DESIGNATED.

## **GROUND FAULT INTERRUPTER**



Your unit is equipped with a Ground Fault Interrupter that will stop the current in the event of a short. If you find that 110v AC power is missing at any receptacle of the motor home, first check to see if the GFI button has been tripped. Then check the breaker panel (FIG. 6). If the GFI button has been tripped, you may have a short in your circuit. Please have a professional test and repair as needed.

(FIG. 8) GFI RECEPTACLE

#### **BATTERY**

The motor home has two or more batteries on board. Both are maintained in the same manner. Check the electrolyte fluid levels on a regular basis, especially during hot weather conditions. Refill as necessary with either distilled water or clean tap water in an emergency. DO NOT ALLOW THE FLUID LEVELS IN THE BATTERIES TO FALL BELOW THE INTERNAL BATTERY PLATES. DAMAGE TO THE BATTERIES MAY RESULT AND SHORTEN THE LIFE OF THE BATTERIES.

When charging the batteries, do not charge at such a fast rate as to cause spewing of the electrolyte from the cells. However, do charge the battery with the cell vent caps off. Some vehicle applications use maintenance free batteries, and therefore this section may not apply.



WARNING: NEVER USE AN OPEN FLAME AROUND BATTERIES. AVOID MAKING ELECTRICAL SPARKS. FUMES FROM THE BATTERY ARE COMBUSTABLE. KEEP AN EYE OUT FOR CORROSION ON THE BATTERY TERMINALS. CORRODED TERMINALS CAN CAUSE A LOSS OF AVAILABLE POWER AS WELL AS CUT DOWN ON THE EFFICIENCY OF THE CHARGING/ELECTRICAL SYSTEM. THIS COULD LEAD TO A SITUATION WHERE THE BATTERY ISN'T CHARGED ENOUGH TO START THE VEHICLE.

If your batteries have problems prior to the end of their warranty period, consult the nearest representative of the battery manufacturer.

When it is time to replace the batteries, be sure to replace them with quality batteries of equal electrical and physical properties. Contact your nearest dealer for advice in the selection of new batteries.

## **BATTERY TYPES AND CHARGING**

Only similar batteries should be connected together in one bank. Do not connect old and new batteries, or wet and gel cell batteries together. Deep-cycle batteries are usually rated in Amp-hours, which is based on a 20-hour discharge rate. Therefore, a 100 amp-hour battery can deliver 5 amps for 20 hours. Deep-cycle batteries can be discharged about 80% of capacity before damage occurs. Shallow cycling (50%-60% drain before recharge) will result in much longer battery life. To find out how long your batteries will last when using various equipment in your coach, research the amperage of the items in use, and use that number to gauge what size amp-hour battery you think you need. Keep in mind that you should recharge your batteries when they are 50% discharged, so only half of the amp-hour rating is actually used.

Completely charging wet cell deep-cycle batteries requires the battery voltage to be raised beyond what is known as the gassing point. This is the voltage at which the battery begins to bubble and gas is given off. If charging stops short of this point, sulfate is left on the plates and deterioration of the battery begins. The gassing point will vary with battery temperature. At 77 degrees F, the gassing point of a 12-volt battery is about 14.0 volts.

## ON-BOARD AUXILIARY POWER GENERATOR (OPTIONAL)

This unit provides 110-volt power to the converter as well as charges the RV battery. Read over the manufacturer's owner's manual for the unit's operation and care/maintenance.

The unit runs on gasoline, LP gas, or diesel fuel depending on your chassis and the model generator selected. BE SURE TO CHECK THE OIL LEVEL OF THE GENERATOR AT REGULAR INTERVALS. Most generators require monthly exercising to prevent internal damage. Again, due to the many different generator options, we recommend that you fully review the generator manufacturer's owner's manual for the unit's operation and care/maintenance and proper use.

#### INVERTER

Inverters are much like converters, only they perform the exact opposite functions. Inverters take 12-volt DC battery power and invert it to 110-volt AC power. Using the inverter can drain a fully charged battery in as little as two (2) hours, depending on what appliances are being used. Therefore, inverters are usually used sparingly. The inverter switch should remain in the "off" position on the inside panel, unless using the inverter mode. The inverter/converter will still charge your batteries when in the "off" position and the coach has 110 volt shore power. If the switch is left

on, as soon as you unplug the coach you will start draining your batteries. Also, if for some reason you loose your shoreline power source without your knowledge, the inverter will automatically take over and after a few hours your batteries could be completely drained.

When batteries are drained this low it takes at least 24 hours of slow charging to bring them back to a "charged" status. The inverter is installed as a temporary means of supplying 110 volt power. You can watch TV for several hours, or run small appliances for a short period of time. Appliances with heating elements (ceramic heaters, blow dryers, curling irons, clothes irons, etc.) will drastically shorten the amount of power supply from the batteries. The inverter and battery bank is not designed to sustain the coach for long periods of time.

If you have the inside control panel option, leave the exterior switch located on the inverter in the "off" position at all times. Check your inverter operator's manual for proper use of the inverter.

#### MONITOR PANEL

Your vehicle has an electrical panel that can provide you with important information about various systems on the RV including the condition of your batteries.

The panel is most often located above the stove or on the wall near the stove. The monitor panel will give you information including:

- How much potable (fresh) water remains.
- How full your black (sewage) tank is.
- · How full your gray (waste water) tank is.
- How much LP gas is in your LP tank.
- How much charge your chassis and house battery have.

The monitor panel can give a false reading on the waste tank (black and grey) levels if those tanks have not been properly flushed or recently cleaned.

## TV ANTENNA AND CABLE CONNECTIONS

Usually each coach is equipped with three (3) signals to choose from. Satellite, cable and air (antenna). You can select which source you want for each TV by using the optional source selector box.

TO FROM TV2 AUX O	FROM TO VCR O	FROM ANT	то тvі О	
-------------------	---------------	-------------	----------------	--

## (FIG. 10) TYPICAL VIDEO CONTROL BOX

If you have a bad reception, perform the following checks:

- Check with neighbors to see how good local cable and antenna reception has been.
- Make sure selector switch is set properly.
- Turn the antenna booster on.
- Set your TV to receive "Air" or "Cable", whichever signal you are watching.
- Check all cable ends to make sure that no ground strands are touching the center cable wire.

If you have no reception at all, perform the following checks:

- Follow all steps above.
- Some units have a cable splice in the back of the refer cabinet. Access this splice from outside and make sure the connection has not been compromised.
- Use a continuity tester to ensure that all cables are hooked up properly.
- Contact your local service center or park manager for assistance.

## LP GAS

## **GENERAL**

The liquid Petroleum gas system in your unit furnishes fuel for various appliances. It is comprised of propane (LP) gas. LP gas provides an efficient and inexpensive source of energy.

The gas is stored in a pressure tank located on or under the chassis of your unit. Under pressure, the LP gas turns to vapor; it is this vapor that burns.

Each tank has an automatic eighty percent stop-fill valve that allows space in the tank for vapor expansion. The high pressure of the vapor in the tank is reduced in two stages as it makes its way to your appliance. The tank pressure will vary with temperature and altitude, but it may be in the range of 100 to 250 pounds per square inch (psi) or more. It is reduced by a pressure regulator to about 12 psi in the first stage and then to about 6.25 ounces in the second stage. The 6.25 ounces psi can also be expressed as 11 inches of water column.

The LP gas system is designed and built to rigid standards and tested before leaving the factory. Your dealer also tests the system prior to customer delivery.

NOTE: YOUR DEALER IS RESPONSIBLE FOR A THOROUGH LP GAS SYSTEM CHECK PRIOR TO DELIVERY. DO NOT ACCEPT THE UNIT UNTIL THIS CHECK HAS BEEN COMPLETED.

Except for simple maintenance and occasionally tightening a connection, you should take your unit to an authorized dealer for LP gas problems. The LP gas tank should always be filled by an authorized LP supplier.

NOTE: YOUR UNIT'S MANUFACTURER IS NOT RESPONSIBLE FOR PERSONAL INJURY OR PROPERTY DAMAGE RESULTING FROM IMPROPERLY MAINTAINED LP GAS APPLIANCES AND SYSTEMS.

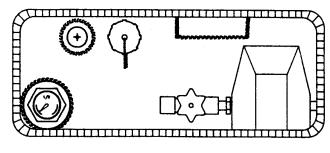
CAUTIONS: READ LP GAS PRECAUTIONS IN THE FRONT OF THIS MANUAL. BECOME FAMILIAR WITH THEM AND MAKE SURE YOUR ENTIRE FAMILY IS COMPLETELY AWARE OF THE SAFETY ASPECTS OF LIVING AROUND LP GAS.

#### CLIMATE DIFFERENCES

The appliances in your vehicle will not function if the LP gas does not vaporize. Propane will continue to vaporize down to –44 degrees F.

Propane has become the main type of LP gas used in RVs in recent years. **Butane should not be used**. The LP gas dealer will have the correct type or blend for his locale. If you plan on traveling from a warm climate to a cold climate, check with your local gas dealer to see if the blend he supplies is appropriate for the part of the county you plan on visiting.

## **OPERATION**



(FIG 11). LP GAS TANK

To operate any LP gas appliance, the LP gas tank's service valve must be OPEN (FIG 11). When first used, or after a refill, there may be some air in the gas lines that will escape when the range burner or similar gas valve is opened. The air may extinguish the match or igniter the first time or two you attempt to light a stove burner. Also remember that when you close the tank's service valve, some gas will remain in the lines. To completely bleed the lines of gas, close the tank valve and light the range burner. When the flame burns out, turn off the appliance.

## FILLING THE LP TANK

Make sure that all burners and pilot lights are turned OFF prior to having a gas supplier refill your LP tank.

Drive your unit to the LP supplier for filling. Never remove the tank from the unit. The supplier will connect his fill nozzle to your unit's LP tank FILL VALVE.

When the tank is being filled, the service valve must be CLOSED. The 20 percent LIQUID LEVEL GAUGE must be OPEN.

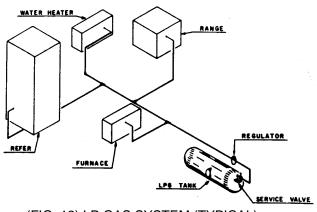
The 80 percent STOP FILL VALVE may close the valve before liquid appears at the 20 percent liquid level gauge, but if liquid does appear, stop filling immediately...the tank is filled to its LP capacity.

Do not use a wrench to tighten the service valve or the 20 percent gauge. They are both designed to be closed leak-tight by hand. If you cannot hand-tighten the valve, the valve may need repair or replacement. Consult your gas dealer.

YOUR LP TANK MUST BE KEPT FREE OF RUST AT ALL TIMES. IF RUST DOES DEVELOP, THE TANK SHOULD BE CLEANED COMPLETELY FREE OF THE RUST, PRIMED, AND PAINTED WHITE (OR SOME OTHER HIGHLY REFLECTIVE COLOR) WHICH WILL HELP TO REDUCE EXPANSION OF THE LP GAS BECAUSE OF HEAT.

## **GAS LINE CHECK**

Check the gas line connection and all other connections regularly. To check, turn OFF all burners and pilot lights. Open all doors and windows. OPEN the LP gas tank service valve and use soapy water or an approved leak detector fluid to test all line connections. Do not use products that contain AMMONIA or CHLORINE. The appearance of bubbles in the soapy solution indicates a leak. Tighten the connections with two (2) open-end wrenches until the bubbles stop. If this does not take care of the leak, contact your gas dealer. DO NOT OVERTIGHTEN. (FIG. 12)



(FIG. 12) LP GAS SYSTEM (TYPICAL)

## REGULATOR PRESSURE

Have the gas regulator checked at the beginning of each season and whenever a problem occurs. Proper line pressure is 11 inches of water column. Your RV dealer or gas supplier can perform this needed check.

## **GAS TANK AND REGULATOR FREEZE-UP**

LP gas regulator freeze-up can be prevented if owners are aware of its causes. Freeze-up may be caused by one of these things: moisture in the tank, an overfilled tank or a greater vapor withdrawal demand than the tank can deliver at a particular temperature.

Freeze-up occurs more frequently in cold weather since liquid gas does not vaporize as quickly. This, along with a higher demand, can cause frosting of the tank and regulator. Be sure to have your LP gas supplier add ANHYDROUS METHANOL before filling the tank in cold weather.

Moisture may enter the tank in the LP gas through condensation if air is allowed to enter the tank through an open valve. This can be avoided by using moisture-free gas and keeping all tank valves CLOSED during storage. If moisture is present, have the tank purged by an authorized dealer and have him add the proper amount of ANHYDROUS METHANOL for your tank.

An overfilled tank can allow liquid gas, rather than the needed vapor, to flow through the regulator. This can result in erratic regulator delivery pressure, improper appliance operation and possible frosting of the regulator and gas line. This can be avoided by following the procedures outlined in "Filling the LP Tank." Always contact your local gas supplier for current procedures.

#### **HOSE REPLACEMENT**

The flexible LP gas hoses connected to your LP tank should be checked regularly for signs of deterioration and may need to be replaced every two to three years. Be sure to replace the hoses with approved and properly rated products.

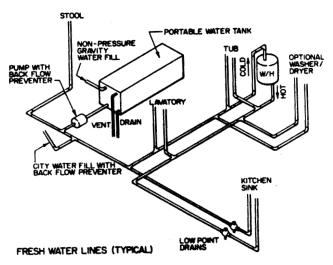
## REGULATOR VENT MAINTENANCE

Since the LP gas regulator is equipped with a vent that allows the system to "breathe," you must check it on a routine basis to see that it does not become clogged. If dirt, sealant or corrosion clogs the vent, clean it with a toothbrush or similar device. At least once a year have your LP serviceman check the regulator for adjustment and operation.

## **PLUMBING**

#### **FRESH WATER**

Fresh water for your RV is provided by filling the FRESH WATER TANK or by hooking directly to a city water connection. These sources supply water to the kitchen sink, shower, lavatory, toilet and water heater. (FIG. 13)



(FIG. 13) FRESH WATER LINES (TYPICAL)

## **CITY WATER**

Open the CITY WATER INLET DOOR and connect a hose to a city pressurized water faucet and to the vehicle's CITY WATER INLET. Some models have a separate water fill for the FRESH WATER TANK. Others have a selector switch to select either LOCAL SUPPLY or FRESH WATER TANK. To use CITY WATER make sure the selector is set to LOCAL SUPPLY. The fresh water tank and water pump are by-passed when the city water hook-up is used.

CAUTION: A PRESSURE REGULATOR SHOULD ALWAYS BE USED WHEN CONNECTING TO CITY WATER. EXCESSIVE WATER PRESSURE CAN DAMAGE LINES AND CONNECTIONS, CAUSING WATER DAMAGE TO YOUR RV. MAKE SURE WATER PRESSURE NEVER EXCEEDS 60 PSI.

#### **WATER TANK**

UNLOCK the GRAVITY WATER FILL HATCH and use a hose or vessel to fill the water tank. Or, select FRESH WATER TANK after hooking the hose to the CITY WATER. Watch your monitor panel inside to determine when the tank is full.

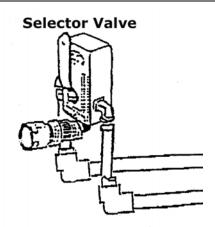


WARNING: NEVER LEAVE YOUR COACH UNATTENDED WHEN FILLING THE FRESH WATER TANK! ALTHOUGH PROPER VENTING IS ALLOWED FOR OVERFLOW, THE WATER PRESSURE CAN EXPAND THE TANK AND CAUSE STRUCTURAL DAMAGE AND A POSSIBLE EXPLOSION RESULTING IN DEATH OR INJURY!

Use only fresh, potable water in the storage tank. To insure that the tank is clean, drain after each trip. Sanitize the tank when new, whenever contamination is suspected, or whenever it has not been used for a long period of time.

## QUICK FILL WATER SUPPLY

Some coaches come equipped with a Quick Fill water supply (FIG 13A) connection for supplying local water and filling the water holding tank. With this system, to fill the water tank connect the water supply hose to the female water hose fitting located inside the waste holding tank compartment. Select "fill" on the blue Quick Fill lever, which may be located on the opposite side of the coach, and turn on the water supply. Watch the inside monitor until the water tank reads full. Do not leave the Vehicle unattended while filling the fresh water tank. To select local water supply, simply turn the blue Quick Fill selector lever to the "local supply" position.



(FIG 13A) QUICK FILL WATER SUPPLY LEVER

## SANITIZING THE WATER TANK

As approved by the U.S. Public Health Service

To assure complete disinfection of your potable water system, it is recommended that the following procedures be followed on a new system, one that has not been used for a period of time, or one that may have become contaminated. This procedure is also recommended before long periods of storage such as over the winter.

- 1. Prepare a chlorine solution using 1 gallon of water and ¼ cup of household bleach (sodium hypochlorite solution). With tank empty, pour chlorine solution into the tank. use 1 gallon solution for each 15 gallons of tank capacity. This procedure will result in a residual chlorine concentration of 50 PPM in the water system. If a 100 PPM concentration is required as discussed in item 3, use ½ cup of household bleach with 1 gallon of water to prepare the chlorine solution. One gallon of the solution should be used for each 15 gallons of tank capacity.
- 2. Complete filling of tank with potable water. Open each faucet and run the water until a distinct odor of chlorine can be detected in the water discharged. Do not forget the hot water taps.
- 3. Allow the system to stand for at least 4 hours when disinfecting with 50 PPM residual chlorine. If a shorted time period is desired, then a 100 PPM chlorine concentration should be permitted to stand in the system for at least 1 hours.
- 4. Drain and flush with potable water.

## WATER PUMP

The RV water pump is a 12-volt DC appliance that is activated by a switch in the kitchen area or on the monitor panel. The switch may be left ON while camping. This is called a demand system. (FIG. 14)

PRESSURE SWITCH DISCHARGE SIDE CONNECTION WATER PUMP

(FIG. 14) WATER PUMP

Turn the faucet on when you want water. The pump will run only as long as needed. If the pump fails when the switch is ON, check the fuse located in the converter. If the pump continues to operate whether the faucet is open or closed, check the water tank to see if it is empty and check to see if there is a leak in the system.

DO NOT RUN THE WATER PUMP WITHOUT WATER IN THE SYSTEM. ALWAYS KEEP THE PUMP SWITCH OFF WHEN THE SYSTEM IS EMPTY OR WHEN CONNECTED TO CITY WATER. RUNNING THE PUMP DRY CAN DAMAGE IT AND VOID THE WARRANTY.

## **SECONDARY WATER PUMP SWITCH**

Some vehicle models have a second water pump switch located in the bathroom near the lav sink. This switch will turn on the water pump whether the main water pump switch is on or off.

#### WINTERIZING THE WATER PUMP

With the water drained from the potable water tank, disconnect the water pump outlet hose and then turn the pump on to allow the remaining water to be pumped out (less than one cup).

If you desire, you can blow out the water lines with compressed air by opening all valves and placing the air nozzle into the system where the outlet hose has disconnected. Replace pump hose.

## WATER MANIFOLD SYSTEM (USA ONLY)

The water manifold system installed on some class A models directs a separate hot and cold water line to each fixture in the RV. Therefore, if you wish to change your kitchen sink faucet, you need only to shut off the supply lines labeled "Kitchen sink." This will allow water supply to all other fixtures during service or replacement.

The water manifold is located in an exterior compartment. To activate water on a specific valve, use the provided key and turn the lever until it is lined up with the indicated arrows (left/right). To shut off water supply to a specific line, turn the key ¼ turn in either direction (up/down). Note that both the hot and cold lines must be turned off for removal of plumbing fixtures.

## WINTERIZING BYPASS ON WATER MANIFOLD

The water manifold is designed to also act as a bypass for the water heater when winterizing the coach. To bypass the water heater, turn the cold #9 valve off, and the hot #9 valve on.

## **DRAINAGE AND SEWER**

Your RV has a Drainage/Sewer system that operates much the same way as the one in your home. How extensive the system depends on your unit model and the options you obtained. It includes a drain line from the kitchen sink and shower to a GRAY WATER HOLDING TANK. There is also a marine toilet and lavatory that empties into a separate BLACK WATER HOLDING TANK. Which tank each sink drains into may vary from one model to another.

The drainage system also includes vents that carry odors caused by drain water and waste out of the RV, while also equalizing air pressure. Drain clean outs are provided to clean lines between fixtures and holding tanks.

## DRAINAGE P-TRAPS

By code, all drains are equipped with P-traps to keep holding tank odors from entering the vehicle. If you detect a foul odor, which you believe is from your holding tanks, add water to all drains to ensure that your P-traps water hasn't evaporated from long term storage. Places to add water include the Kitchen sink, Bathroom sink, shower/tub, wet bar sink, and the washer/dryer drain.

#### **HOLDING TANKS**

Your unit has a GRAY WATER HOLDING TANK and a BLACK WATER HOLDING TANK. The tanks should be emptied frequently, or as indicated on the monitor panel. The tanks should always be emptied at a special DUMPING

STATION. Most campgrounds and highway rest stops and many gasoline stations are equipped with proper DUMPING STATIONS.

NOTE: MOST STATES HAVE LAWS PROHIBITING EMPTYING SEWAGE ANYWHERE BUT AN APPROVED DUMPING STATION.

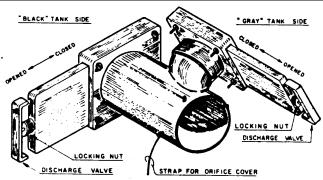
While camping it is normal practice to leave your GRAY WATER HOLDING TANK valve open if your campsite is equipped with sewer hook-up. NEVER leave the BLACK WATER TANK valve open while using the coach. Since the system utilizes gravity to empty, the BLACK WATER TANK will not drain properly unless is has sufficient liquid to help drain out the solids.

## **EMPTYING HOLDING TANKS**

To empty the holding tanks, be certain that your RV is level since this process depends upon gravity. Remove the sewage drain hose from its storage location. Remove the cap from the termination outlet and connect the drain hose (FIG. 15).

NOTE: DRAIN THE TOILET (BLACK) HOLDING TANK FIRST.

To drain either holding tank, pull out the TERMINATION VALVE (FIG. 15) by pulling out the dump valve slide handle. Close the valve after the tank has drained. Flush or pour about two gallons of water through the toilet when emptying the black tank and drain again. This flushes the tank and helps



(FIG. 15) TERMINATION VALVES

clean the drain hose. Repeat as necessary. Follow the same procedure for the GRAY WATER HOLDING TANK. A repeat flush is not necessary. When the tank is empty, push the dump valve handle in until it seats. Remove the hose, wash and replace it in its storage location. Replace termination outlet cap.

#### **HOLDING TANK MAINTENANCE**

Keep your tanks well flushed out when the vehicle is not in use. Allowing the tank to sit with any contents for more than a couple of days will ensure some sort of build-up on the monitor probes in the side of the tank and future monitor reading problems, even if this is the first time you have used your RV. One way to help flush them out is to drain them at the campground, then fill each tank half full of water for the trip home. The constant agitation while driving home usually does a good job of cleaning the tanks. Then, before you arrive at home, stop at a local approved dumping station and drain the tanks completely.

When camping there are a few things you can do to help facilitate the cleaning process later. First, you should always use some type of chemical additive in your holding tanks specifically designed for RV use. These types of chemicals will break down the contents of the tanks and help ensure good drainage. In addition, try using tissue designed for recreational vehicles. It will break down more than residential style tissues, and usually never clogs your drain valves.

#### DO'S AND DON'T OF HOLDING TANK USE

- **DO** Clean the holding tank with an approved cleaner.
- **DO** Add a special chemical additive to sanitize and improve tank action.
- **DO** Guard the tank against Freeze-up.
- **DO** Keep the dump valves closed to allow the tanks to get as full as possible to facilitate drainage.
- **DO** Keep the dump valve closed and the drain cap in place to allow the use of the system when not parked at a campsite.
- **DON'T** Put Facial tissues, paper, automotive type anti-freeze, sanitary napkins, diapers or household toilet cleaners in your holding tank.
- **DON'T** Put foreign objects in the system that could clog or damage it in any way.
- **DON'T** Use the toilet while driving down the road. All occupants must remain seated with a secure seatbelt while the vehicle is moving. Further, the vacuum caused by the high-speed movement of the vehicle will cause the toilet

to act as a vent when flushed, causing severe odors in the vehicle and possibly spraying waste into the interior of the coach.

## **HOLDING TANK FLUSH SYSTEM (OPTIONAL)**

The optional holding tank flush kit is installed on the gray and black water holding tank system. To use this system, connect a water hose to the flush kit hose located inside the holding tank dump valve compartment. Note that the lever used on this system is not an "on/off" lever, but rather a selector for which tank you wish to flush. After connecting your water hose, turn on the water to begin flushing your tank. For best results leave the dump valves closed until you have flushed each tank. Do not leave the flush system unattended, unless you decide to leave your dump valves open.

The optional glass container on the flush system hose is used to house a sanitation tablet for sanitizing each tank. Tablets are available at most RV dealers or RV parts stores.

#### WATER SYSTEM WINTERIZING

NOTE: READ THIS BEFORE WINTERIZING YOUR WATER SYSTEM.

If your RV is going to be stored unheated in temperatures that COULD GO BELOW FREEZING, the fresh water and waste systems must be winterized.

Follow this procedure:

- 1. Drain the fresh water tank.
- 2. Drain pipes by turning the water pump ON and opening a cold water faucet. Wait for the water flow to stop. Turn pump OFF. Leave faucets OPEN.
- 3. Turn ON all faucets and OPEN the HOT and COLD WATER PIPE DRAIN VALVES. Leave these valves in the OPEN position. These valves are located either under the galley sink or in an exterior compartment, and permit the water to drain onto the ground below the RV.
- 4. OPEN the WATER HEATER drain valve located at the bottom of the heater (or remove plug). Let the water drain out. OPEN the heater SAFETY VALVE.
- 5. Flush the toilet.
- 6. After each faucet has been opened, drained and closed, CLOSE the WATER LINE DRAIN VALVES.
- 7. Drain the WASTE WATER HOLDING TANK.
- 8. Double check that ALL WATER has been drained.
- 9. Secure all protective caps including the water tank filler, city water inlet and waste drain outlet.

CAUTION: DRAINING THE WATER SYSTEM ALONE MAY NOT BE ENOUGH TO PROVIDE COMPLETE COLD WEATHER PROTECTION FOR AN RV UNIT THAT WILL BE STORED IN AN UNHEATED ENVIRONMENT WHERE TEMPERATURES DROP BELOW FREEZING. CONSULT YOUR DEALER FOR MORE INFORMATION ON THE BEST METHOD OF WINTERIZING YOUR VEHICLE.

Units equipped with a winterization siphon hose should use it to pump RV anti-freeze into the plumbing system. Always pour a cupful of RV anti-freeze into each drain after your coach has been winterized.



WARNING: DO NOT USE AUTOMOTIVE ANTI-FREEZE OR WINDSHIELD WASHER FLUID ANTI-FREEZE IN THE MOTOR HOME WATER SYSTEM. THESE CAN BE HARMFUL OR FATAL IF SWALLOWED. YOUR DEALER CAN PROVIDE YOU WITH SPECIAL ANTI-FREEZE THAT IS SAFE AND APPROVED FOR RV WATER SYSTEMS. ALWAYS FOLLOW MANUFACTURER'S INSTRUCTIONS FOR THESE ADDITIVES.

## **APPLIANCES**



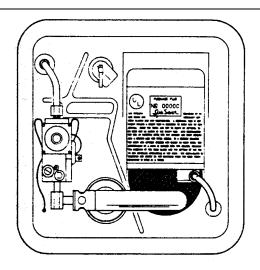
WARNING: THE HOT WATER HEATER AND FURNACE USE LP GAS AS FUEL, AND IN THE COURSE OF NORMAL OPERATION HAVE PARTS/SURFACES THAT BECOME VERY HOT AND ALSO EMIT COMBUSTION GASES. BE CAREFUL TO ALWAYS FOLLOW MANUFACTURER'S RECOMMENDATIONS ON VENTILATION AND DO NOT TOUCH THE AIR EXHAUST PORTS OR ALLOW ANY MATERIAL TO COVER THEM OR EVEN COME IN CONTACT WITH EITHER THE INTAKE OR EXHAUST OF THESE APPLIANCES. WHENEVER YOU OR SOMEONE IN YOUR VEHICLE SMELLS LP GAS, TAKE PRECAUTIONS

#### **WATER HEATER**

NEVER IGNITE THE HOT WATER HEATER WITHOUT FIRST FILLING IT WITH WATER! FAILURE TO FOLLOW THIS PROCEDURE MAY PERMANENTLY DAMAGE YOUR WATER HEATER.

The water heater is accessed by a panel on the outside of the vehicle (FIG. 18). Turn on the hot water faucet at the galley sink to see if the tank is full. Operating instructions can be found in the water heater owner's manual.

NOTE: ONLY QUALIFIED TECHNICIANS SHOULD PERFORM SERVICE ON THE WATER HEATER. IF NOT SERVICED PROPERLY A FIRE COULD OCCUR.



(FIG. 18) WATER HEATER

## **RANGE**

Also operated with LP gas are the range burners and the oven. The basic operation is the same as the units in your home except that extra care must be taken to provide adequate ventilation in your RV. Unlike your home, the RV has limited air space, thus, a limited amount of oxygen available for combustion.



WARNING: DO NOT USE OPEN FLAMES, SUCH AS THE RANGE BURNERS, TO WARM THE LIVING AREA OF THE RV. THE FLAMES CONSUME THE OXYGEN IN THE VEHICLE AND COULD RESULT IN ASPHYXIATION.

Always provide adequate ventilation when using the range and oven. It is always best to use the range exhaust hood and open a window slightly.

Your owner's packet contains owner's manuals for the oven and range. Read these over carefully to become familiar with the safe operation of these appliances.

## **MICROWAVE**

The optional microwave is no different than that found in your home. It relies on 110-volt power for operation and should never be used while driving down the road. Read over the microwave oven's owner's manual to find all the information on its operation and cleaning.

#### REFRIGERATOR

Unlike your home refrigerator, the unit on your RV can be operated on LP gas and 120-volt AC electricity. Read over the owner's manual provided in your owner's packet before putting the refrigerator into operation.

The refrigerator will not operate correctly if the vehicle is not level while parked. The refrigerator coolant will not circulate properly if the unit is not level.

For best results, make sure the outside sidewall vent and roof vent are always clear of debris. Without proper circulation of the rear coils the unit will not keep food cold.

Upon initial operation, or after being stored, the refrigerator it could take up to 24 hours before the unit is cool enough for use.

When being used on the 110 AC setting, the refrigerator circuit board still requires 12 volt operation. Make sure your batteries have sufficient charge prior to operation.

#### **FURNACE**

Your RV is equipped with a forced-air furnace similar to the type found in most homes with the exception that it is fueled by LP gas. Each unit is equipped with a wall mounted thermostat that controls the temperature. An operating manual for the furnace is included in your owner's packet.

The furnace is designed to have un-obstructed airflow from all its vents, including interior and exterior. If any vent is blocked the furnace may shut itself off.

The furnace igniter is powered by your 12-volt battery system. If the system battery is low the furnace blower will come on, however the furnace will not ignite. Make sure you have sufficient battery power before operating the furnace.

Your furnace is designed to sustain a desired temperature in the vehicle at most times. Due to varying weather conditions, the furnace may not be able to keep up with sub-freezing temperatures. The amount of vehicle occupants and the position the vehicle is parked may help or hinder the furnace's ability to keep up with freeze conditions. Consult the furnace owner's manual for more information.



WARNING: DO NOT SUPPLEMENT THE FURNACE WITH ANY PORTABLE FUEL-BURNING APPLIANCE FOR HEATING THE INTERIOR OF THE MOTOR HOME. THESE APPLIANCES ARE NOT SAFE; ASPHYXIATION/CARBON MONOXIDE POISONING IS POSSIBLE IN ANY SMALL, WELL-SEALED SPACE.

## **AIR CONDITIONER (ROOF)**

Many motor homes are equipped with a roof air conditioning system that works with electrical power from either a shore line or a portable generator.

Air conditioners are capable of cooling air a maximum of 18 to 22 degrees in a 50% humidity environment. As the humidity goes up, the cooling difference goes down. If the temperature inside your coach is 100 degrees when you turn on the air conditioner, it will only put out 80 degrees. Eventually the air inside the coach will cool, and as it cools the air put out by the air conditioner will also cool. However, when starting out at 100 degrees, this cooling could take several hours before it reaches your desired temperature. Therefore, if you know the weather will be hot, turn your air conditioner on early.

The two most common complaints with roof air conditioners are they won't turn on at all, or when they do turn on, they won't put out cold air. Obviously, if the unit won't turn on you may have a problem with something other than the air conditioner. Always make sure you have sufficient power to run each air conditioner you plan on using. If your power source has only 30-amp service, you can run only one (1) air conditioner at a time. Using an adapter to plug in your 50-amp cord to 30-amp service doesn't allow the use of both AC's either. Most AC's require a minimum of 13 amps to operate properly. Although the amperage of two AC's running at the same time doesn't add up to 30 amps, other components in the coach, such as the converter, refrigerator, VCR (draws amps simply by just being plugged in), etc., draw enough amperage to push the total amp load over the 30 amp mark. If you desire to run both AC's in a 30-amp environment, try running your generator instead of using shore power. Run both AC's off the generator until the coach cools off, then use shore power to run only one AC, which by itself will usually maintain a cool temperature inside the coach.

#### **ROOF EXHAUST FAN OPERATION**

The ceiling fan used in your coach is designed to ventilate the interior when cooking or if the use of your air conditioner is not desired. If used properly the roof fan can cool the interior by as much as 15 degrees within a short period of time. When used in the exhaust mode, the fan pulls hot air from high inside the coach and will pull fresh air from an open window. This fan is usually controlled by a wall-mounted thermostat (some models have a thermostat built right on the fan), which must be turned on and adjusted to your desired temperature before use. The wall-mounted thermostat is not the same that is used for the furnace or air conditioners. Please review the supplied fan owner's manual for additional operating instructions.

# **Effects of Long Term Occupancy**

## **FORMALDEHYDE**

#### If you notice an odor in your recreational vehicle - it could be formaldehyde

Gulf Stream is an industry leader in reducing emissions of formaldehyde from the products used in constructing its RV's.

Formaldehyde is commonly found in nearly all homes and buildings. It is a colorless gas that is released into the home from a variety of indoor sources. Formaldehyde can be found in a variety of everyday products in your home, such as:

**Household Products:** cleaning solutions, dishwashing liquids, fabric softeners, shoe-care agents, carpet cleaning solutions, adhesives

Personal Care Products: nail polish, cosmetics, shampoos, antiperspirants

Fabrics: clothing, linens, draperies

Appliances: gas appliances, kerosene stoves

Tobacco Products: cigarettes, cigars

Building Materials: particleboard, plywood cabinets, and wall and floor materials, wallpaper, some other paper

goods, paint coatings

As a result, **recreational vehicles**, mobile homes, manufactured homes, new homes, and recently remodeled homes are more likely to contain higher levels of formaldehyde. Over time, formaldehyde goes away and the odors and the effects decrease or disappear.

## What can I do to reduce my exposure to formaldehyde in my recreational vehicle?

- **Increase ventilation.** Adequate ventilation normally reduces or eliminates any or all of the above stated symptoms. Always be sure to ventilate your recreational vehicle prior to and during use, especially after storage and during hot, humid weather. We recommend opening windows and running ventilation fans as much as possible during the initial break-in period.
- **Keep indoor temperatures moderate.** As the temperature rises, the effects of formaldehyde may be more noticeable. You can use the air conditioner to keep temperatures relatively low, which will help lower the formaldehyde effects and odors.
- **Lower the humidity.** You can decrease the rate at which formaldehyde is released from pressed wood and other products by lowering the humidity in your recreational vehicle. Humidity should be maintained at about 40% to 50% relative humidity in the home.
- Do not smoke inside. Tobacco smoking produces formaldehyde and other toxic chemicals.



WARNING: All recreational vehicles are built with some materials that emit formaldehyde. Eye, nose and throat irritations, headache, nausea and a variety of asthma-like symptoms, including shortness of breath, have been reported as a result of formaldehyde exposure. Elderly persons and young children, as well as anyone with a history of asthma, allergies, or lung problems may be at greater risk. Research is continuing on the possible long-term effects of exposure to formaldehyde.

If you have questions regarding the health effects of formaldehyde, consult your doctor or local heath department. Adequate ventilation normally reduces or eliminates any or all of the above problems. Always be sure to ventilate your RV prior to and during use, especially after storage and during hot, humid weather. Generally, levels of formaldehyde emitted diminish over time.

#### **CONDENSATION AND MOLD**

More and more today, motor homes are being used for more than just recreational vehicles. Those of you that intend to use the vehicle for extended periods of time must be prepared to deal with condensation and the humid conditions that may be encountered. The normal activities of even a small number of occupants in the relatively small volume of a modern recreational vehicle with its tight construction will lead to rapid saturation of the air inside the vehicle and the appearance of visible moisture, especially during cold weather.

Estimates indicate that a family of four can vaporize up to three gallons of water daily through its breathing, cooking, bathing and washing. Unless this vapor is carried outside by ventilation, or removed from the air by a dehumidifier, it will condense on the inside of the windows and walls as moisture. In cold weather it will appear as frost or ice. It may also condense in the walls or ceiling and appear as stains on paneling. This will increase the heating load on the furnace somewhat, but it will greatly reduce condensation. You should increase ventilation when large numbers of people are present.



WARNING: RECREATIONAL VEHICLES ARE SUBJECTED TO BEING CLOSED UP FOR LONG PERIODS OF TIME WHICH CAN RESULT IN EXCESSIVE HUMIDITY, AN AVERAGE CONDITION THAT CAN LEAD TO THE FORMING OF MOLD. IF MOISTURE PENETRATION OCCURS, IT IS ABSOLUTELY IMPERATIVE TO HAVE IT REPAIRED TO AVOID DETERIORATION OF MATERIALS AND THE ENVIRONMENT THROUGH THE INTRODUCTION OF MOLD OR BACTERIA. MOLD AND BACTERIA ARE <u>ALWAYS</u> PRESENT IN A HABITAT.



WARNING: DO NOT USE COOKING APPLIANCES FOR COMFORT HEATING. IN ADDITION TO THE TOXIC FUMES AND OXYGEN DEPLETION, OPEN FLAMES ADD MOISTURE TO THE AIR INCREASING CONDENSATION AND THE POSSIBILITY OF MOLD.

## SLIDE OUT SYSTEMS

If your vehicle is equipped with a slide out there are several precautions that should be taken before operation of the slide room.

- 1. Make sure you have clearance on the exterior.
- 2. Make sure your slide out awning is unlocked.
- 3. Make sure that all interior items are clear.
- 4. Make sure that you have sufficient battery power.

## SLIDE OUT SYSTEMS OWNER'S MANUALS AND TROUBLESHOOTING GUIDES

Gulf Stream products carry a variety of electrically operated slide out products. The electrical slide out product installed in your particular motor home is accompanied by an owner's manual from the slide out system manufacturer. For troubleshooting, maintenance and proper use of your particular slide out, please refer to the slide out owner's manual supplied by the slide out system manufacturer. Most slide out system owner's manuals and troubleshooting guides can also be found on the slide out system manufacturers websites.

#### SLIDE OUT KILL SWITCH

Some Gulf Stream models have a kill switch mounted to the base of the driver's seat. The slide out will not function unless this seat is moved to its forward most position. Also, the parking brake may need to be applied for the slide outs to function

## SLIDE OUT CIRCUIT BREAKER SWITCH

If attempting to move the slide and its perceived that the slide out system has no power, check the 12 volt 50 amp mini-breaker located in either the front or rear exterior electrical compartment to make sure it has not been tripped. Reset the breaker as needed. Make sure the drivers seat is positioned as far forward as possible and the parking brake has been set.

#### SLIDE OUT WEATHER SEALS

Periodically check all seals and gaskets on the slide out walls for proper fit and operation. Check the condition of the slide tubes (not the hydraulic ram) under the slide out, and if needed use bearing grease for ease of operation.

Slide outs are not designed to have a 100% air-tight seal. However, you will find that the best seal possible can be achieved with pro-active maintenance and proper use. Occasional adjustment of the slide out room to prevent water or air intrusion may be necessary under normal operation. With normal adjustments, the slide out may not appear to be perfectly level within the slide out opening of the motor home sidewall. This is a normal occurrence. Further, slide out adjustments may result in decal or paint line alignment concerns. The failure of paint or decals to line up after slide out adjustments does not require attention and repainting or applying new decals is not necessary or covered under the Gulf Stream Coach, Inc. Limited Warranty.

## SLIDE OUT IGNITION OVERRIDE

The slide out has a safety override installed to prevent operation while the ignition switch is on. Make sure the ignition switch to the motor home is off before troubleshooting any slide out problems such as, non operation.

## LEVELING JACKS



WARNING: NEVER USE ANY LEVELING JACK SYSTEM AS A LIFT FOR CHANGING TIRES OR ACCESS TO THE UNDERSIDE OF THE VEHICLE. FAILURE OF THE LEVELING JACK SYSTEM WHILE A PERSON IS UNDER THE VEHICLE CAN CAUSE INJURY OR DEATH.

Leveling jack systems are installed to level your coach, and to keep the coach from swaying when parked for camping. Leveling jacks were not designed as lifting systems for service access under the coach. Placement of ANSI approved jack stands under the coach is necessary prior to entering the underside of any vehicle for service.

Due to the varying options contained in leveling jack systems, it is recommended that you read the operation manual included with the system installed on your coach (optional) for proper operation procedures.

#### LEVELING JACK CIRCUIT BREAKER SWITCH

If you are having trouble with the system, make sure that the 50 amp 12 volt mini breaker installed in either the front or rear exterior electrical compartment has not been tripped. Your batteries must be near fully charged to operate the leveling system as well. Also make sure that you have the ignition key in the proper position, the brake is set, and that the transmission is in "park."

## **AWNINGS**

Awnings installed on your vehicle are optional and may have been added by your dealer. Proper use, care, and maintenance procedures for awnings are included in the literature provided with the awning.



WARNING: SOME AWNINGS CONTAIN PINCH POINTS, WHICH IF USED IMPROPERLY CAN CAUSE INJURY. PLEASE READ AND UNDERSTAND ALL OPERATOR INSTRUCTIONS INCLUDED WITH YOUR AWNING(S).

#### **AWNING CARE**

Be sure to clean off all debris as you roll up your awnings. Periodically wash off the awning fabric with a soapy water solution. Long term exposure to the sun may cause some fading over time, which is normal. Harsh exposure can cause the awning fabric to delaminate.

## VEHICLE MAINTENANCE

Generally, sealants are designed to last more than a few years, however, the varying weather conditions across the country can breakdown those sealants in as little as 1 year. Some sealants applied in the spring must be touched up again in the fall, and in the windshield area on a bi-monthly basis.

## **WINDSHIELD**

The windshield is probably subjected to the worse conditions, and therefore will require more maintenance. If the windshield leaks, a good urethane adhesive designed for installing windshields is recommended for application under the rubber gasket, followed up by a small silicone seal where the gasket lays on the windshield.

#### **ROOF**

Probably the most important area to check for proper seals, is the roof. When accessing the roof use extreme caution and avoid walking on areas near the roof air conditioner ducting. While it is ok to walk in these areas and a slight dipping may be visible, this does not indicate a structural problem with the roof. Generally, this area should be checked at least twice a year. If you find any area that looks questionable, reseal it. The sealant that you should use depends on what type has already been applied. Most roofs used on RV's today use a sealant that is "Self-Leveling," or gradually spreads out up to an hour after it is applied. Before this type of sealant is applied it may be necessary to remove all sealant in the questionable area, as this will ensure that the new sealant will get a good seal when applied. Due to the fact that this sealant tries to settle after it is applied, it is not recommended for application in areas that travel over the edge of the roof. In these areas a good silicone sealant of the same color will perform the task at hand.

#### SIDEWALL TRIM AND COMPONENT SEALANTS

Other areas that will need attention include the moldings used on the side walls and the compartment door edge moldings. Since these areas are more accessible for periodical checks, It is recommended to inspect the side walls and compartment doors every time you wash your vehicle. Sometimes washing the side walls can actually remove some necessary sealants. If you find an area on your side walls that needs resealed, a clear silicone, or one that matches the color of your side walls should be used. When resealing compartment doors, only a clear silicone sealant is recommended, as these doors are usually painted and the color would be difficult to match.

The last few areas that might need attention are those around the clearance lights, tail lights, rear view mirrors, and around accessories and windows. All these areas can be resealed using a common silicone based sealant/adhesive. However, when sealing windows and the base of rear view mirrors, be careful as to keep from sealing over any weep holes. These holes are designed to drain any water that may have found its way to the inside of a window or mirror.

Keeping up on the maintenance of your sealants will keep your RV looking beautiful for a long time. If you are not sure what types of sealants should be used on any part of your RV, a simple phone call to your local dealer for direction will prove beneficial.

## PAINT, FIBERGLASS, AND SIDEWALL CARE

The sidewalls of your motor home have a combination of fiberglass, paint and vinyl decals. The proper care and maintenance of each one of these elements is crucial in the longevity of your vehicle's proper appearance. If you plan on using wax on your side walls you should use a marine type wax on the unpainted portions of the coach. Marine type wax is best suited for fiberglass surfaces. Regular automotive wax is suitable for painted surfaces of the RV.

Avoid storing your RV in the same spot facing the same direction for extended periods of time! The sun can literally bake the finish off of your RV if it is not properly rotated during prolonged use and/or storage.

#### CORROSION PROTECTION

Your Gulf Stream recreational vehicle has been designed to withstand normal environmental conditions. But, the sand and salt used on the highways and the salt spray in the air near oceans can cause the metal components on your recreational vehicle to corrode.

To protect your recreational vehicle from this corrosion, it must be thoroughly cleaned as soon as possible after exposure to these elements. Washing the undercarriage with a high-pressure washer will remove the majority of the salt. But, this will not replace the paint that is literally sand-blasted off the undercarriage by the road salt and sand. Sand-blasted and corroded frame components must be refinished. This can be done with readily available rust preventative paint and undercoating. This is necessary to properly maintain your recreational vehicle.

We have also found generators to be affected by salt spray. Since the generator requires air for operation and cooling, the generator compartment cannot be completely sealed from the elements. Therefore, whenever the recreational vehicle is exposed to salt spray, the generator should also be cleaned.

Aftermarket undercoating processes are also beneficial in rust prevention. But, to remain effective, these treatments must be inspected and renewed annually as most undercoating agents can dry and peel with age.

Therefore, regularly scheduled inspections and maintenance is necessary to protect your recreational vehicle and its various components and fixtures from the elements and keep it corrosion-free.

In addition to maintenance, you should keep from storing your vehicle in grassy areas for long periods of time. The stagnant, moist air developed under the coach will speed up the corrosion process. Always store your vehicle on pebble, concrete or asphalt.

Some components used by Gulf Stream and the chassis manufacturer, by nature, will appear to be "rusty" or corroded on the surface. These components are not required to be rust free for normal operation. These components may include axle housings, brake caliper housings, LP black pipe fittings, etc.

## REPORTING SAFETY DEFECTS

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

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

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1.800.424.9393 or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590 or at www.NHTSA.gov. You can also obtain other information about motor vehicle safety from the hotline.

# PRE-TRIP CHECK LIST (AT HOME)

## **EXTERIOR**

All objects (mirrors, etc.) secure	Awnings locked
Tires at proper pressure (spare) (Check for wear and damage)	Wheel lug nuts at proper torque
Hitch and hitch ball secure	All exterior lights operational
Windshield wipers operational (blades)	Batteries charged, fluid level okay
Fluids topped off(Oil, brake, anti-freeze, etc)	Belts and hoses in good condition (check belt tension and hose clamps)
Brakes checked for operation	Secure all compartment doors
Under-carriage items secure	Roof items secure
INTERIOR	
Antenna lowered	Roof vents lowered
Refrigerator locked	Water heater OFF
Water pump OFF	Fresh water tank level
Waste water tank levels	Toilet operational
Furnace OFF	LP Gas System checked
Cooktop Cover CLOSED	Drawers, Closets, Windows CLOSED
START ENGINE, CHECK GAUGES	Horn
Radio	Seat adjustments
Mirror adjustments	Dashboard lights
PRE-TRIP CHECK LIST (CAMPSITE)	
FOLLOW THE ABOVE CHECK LIST WITH THESE ADDED PO	DINTS:
EXTERIOR	
Disconnect all shore lines	Remove wheel chocks
Retract step	Retract Levelers
Store camping equipment	

CHECK CLEARANCES PRIOR TO PULLING OUT

This check list may seem like it contains basic items, but many are taken for granted and can spoil a camping trip if not attended to prior to moving the vehicle. You may want to use this list as a start for your own Pre-Trip check list, which may include your personal camping gear and food preferences.

# **INDEX**

12-VOLT/110-VOLT	20	30-AMP AND 50-AMP 110-VOLT SERVICE	21
A			
AIR BAG (SUSPENSION) WARNING	13	AIR CONDITIONER (ROOF)	33
ANTI-LOCKING BRAKING SYSTEM (ABS)		APPLIANCESAWNINGS.	-
B	31	AWNINGS	30
BATTERY TYPES AND CHARGINGBRAKES.		BATTERY	23
C	.,		
	0	CARRYING CAPACITY	40
CARBON MONOXIDE SAFETYCHILD'S SAFETY SEATS		CITY WATER	
CLIMATE DIFFERENCES (LP)		COACH SYSTEMS	19
CONDENSATION AND MOLD	35	CORROSION PROTECTION	38
D			
DANGERS OF OVERLOADING		DASH SWITCH SYMBOLS	
DASHBOARD INSTRUMENTS		DAY-TO-DAY OPERATION	
DETERMINING WEIGHT AND WEIGHT DISTRIBUTION DRAINAGE AND SEWER		DO'S AND DON'TS OF HOLDING TANK USE DRAINAGE P-TRAPS	
DRIVER CONTROLS.		DRIVING TECHNIQUES.	
E			
EFFECTS OF LONG TERM OCCUPANCY	34	ELECTRICAL	20
EMERGENCY TOWING OF MOTOR HOME		EMERGENECY START SWITCH	
EMPTYING HOLDING TANKS	30	EXTENSION CORDS	
F			
FANTASTIC FAN OPERATION	33	FEDERAL WEIGHT DEFINITIONS	6
FILLING THE LP TANK		FIRE SAFETY	-
FORMALDEHYDEFURNACE	-	FRESH WATER	27
G			
0.40 LINE OUEOK (LE)	00	CAC TANK AND DECUMATED EDEFTE UP (LD)	
GAS LINE CHECK (LP)GASOLINE TANK SAFETY		GAS TANK AND REGULATOR FREEZE UP (LP) GENERAL SAFETY	
GROUND CLEARANCE		GROUND FAULT INTERRUPTER	
GULF STREAM LIMITED WARRANTY		GULF STREAMERS INTERNATIONAL RV CLUB	
Н			
HOLDING TANK FLUSH SYSTEM	31	HOLDING TANK MAINTENANCE	
HOLDING TANKS	29	HOSE REPLACEMENT (LP)	27
I			
INVERTER	23		
J			
JUMP STARTING	19		
L			
LEVELING JACK CIRCUIT BREAKER	36	LEVELING JACKS	
LOADING TIPS		LP GAS SAFETY	
LP GAS SAFETY	. 9	LP GAS	15

#### M MANUFACTURERS LABELS...... 11 MICROWAVE......32 0 Ρ PAC BRAKES AND JAKE BRAKES...... 17 POWER CONVERTER...... 22 Q QUICK FILL WATER SUPPLY...... 28 R REFRIGERATOR......32 RANGE......32 REGULATOR VENT MAINTENANCE (LP).....27 S SAFETY......19 SEAT BELT MAINTENANCE...... 8 SEAT BELT MOUNTING...... 9 SECONDARY WATER PUMP SWITCH...... 29 STARTING AND VEHICLE WARM UP...... 18 Т TELEVISION 12-VOLT ELECTRICAL CONNECTION....... 17 TIRE MARKINGS...... 14 TRAILER TOWING...... 14 TIRES...... 14 TV ANTENNA AND CABLE CONNECTIONS...... 24 U VEHICLE TOWING ...... 14 VEHICLE WEIGHT INFORMATION LABEL...... 14 VEHICLE WEIGHT PLANNING GUIDE...... 8 W WARM WEATHER/HIGH ELEVATION OPERATION....... 16 WATER SYSTEM WINTERIZING...... 31 WEIGHT DEFINITIONS......12 WEIGHT LIMITATIONS......12 WINTERIZING BYPASS OPTION ON MANIFOLD...... 29



- Active Chapters: Members are encouraged to join and participate in their local chapter activities. If there is not one in your state, we will help you promote the club to get a chapter started. For more details, contact the International Office. Chapter Officers receive free membership to the International Club.
- Magazine: Main Stream is issued quarterly to keep you informed of upcoming International events, local chapter happenings and Gulf Stream product and service updates.
- Fellowship and Friendship: RVers are a special breed! The Gulf Streamers club will give you a chance to meet many who share this wonderful pastime.
- International Rallies and Caravans: Professionally scouted and pre-planned International Rallies and Caravans with experienced wagonmasters to help make your trip trouble free and more enjoyable.
- Promotional Items: Offered only to members of the Gulf Streamers club at special discount prices.
- Web site: Updated frequently with new events, pictures, newsletters and Gulf Streamer chapter articles. All the latest information can be found at our club website: streamers.gulfstreamcoach. com
- Gulf Stream Country Club: Open Memorial Day Labor Day. This 55-acre complex includes a nine-hole par-3 golf course, shuffleboards, basketball/tennis courts, swimming pool and more.
- Streamwear by Gulf Stream: As a member of the Gulf Streamers, you have the opportunity to order hats, jackets, and shirts with the Gulf Streamers logo. Attractive apparel offered at special club prices.
- Discounted Parts: 10% discount offered to all active club members on all parts ordered through any authorized service center.
   Must provide service center with membership number. Call (800) 482-6456 or click on Dealer Locator on our website (www.gulf-streamrv.com) to find your nearest Gulf Stream authorized service center. If dealer is new, dealer may need to verify program with

- Gulf Stream for clarification by calling (800) 289-8787 ext. 3067 or 3664.
- Discounts: Members receive discounts on National Theme Parks and special attractions. You also receive special rates on RV and travel guides, directories and magazines.
- Hertz-Discount Card: As a member you receive special car rental rates, discounts and program enhancements such as weekly rental discounts and free car class upgrades.
- 12. Passsport America: Free one year membership to the "Original" 50 % discount camping club. Does not include shipping and handling and is only available to new members.
- 13. Flying J Membership: Receive up to 30 cents off per gallon on gasoline and propane! Enjoy special RV fuel islands, free RV dump stations, free audio adventures membership, and receive exclusive E-coupons when you provide Flying J with a valid email address.
- 14. \*Gulf Streamers RV Insurance: (Offered through Farm and City Insurance) An outstanding opportunity that offers members full coverage at competitive prices. Policies cover both full and part-time RVers at special rates, including diminishing deductibles.
- 15. \*Gulf Streamers Emergency Road Service: (Offered through Coach Net) An opportunity to receive 100% paid road service, no limit towing, fuel delivery and many other benefits at special prices. Exclusively available for the Gulf Streamers International RV Club.
- 16. \*RVMCA Mail Forwarding and Voice Mail Service: Participate in one of the most comprehensive, cost-efficient mail forwarding services available. Low one-time enrollment fee with no annual dues. Various packages available call (866) go-RVMCA.
- \*SkyMed International: (Offered through SkyMed International)
   Emergency air evacuation membership plans.

\*Optional

Me	mbership A	Application (Please Print)	
Name	44 44 45	Spouse	
Address		City	St./Prov
ZIP Phone	100 88	Check One: Membership Dues	Renewal/Reinstatements
Cell Phone	to ta		
E-mail:		One Year (\$25)	One Year (\$20)
Anniversary Date	10 Th	Two Years (\$40)	Two Year (\$35)
30 (10 - 30 (10 2 - 10 10 10 - 10 )		Three Years (\$50)	Three Years (\$45)
Model Year	<u> </u>	Unit Serial #	(a) 30 Mil 30 Mil
Membership Sponsored by		Sponsor Membership #	
(Not necessary for men	nbership)		
Check or Money Order (in U.S. Funds)	□ VISA°	CARD #	Exp. Date/
Payable to: Gulf Streamers Int'l RV Club		Signature	Date
		Name as Appears on Card	

Complete this application for membership and mail with your check or money order to: Gulf Streamers International RV Club, P.O. Box 1005, Nappanee, IN, 46550 or phone (800) 289-8787 ext. 3067.

Membership dues are non-refundable.

Membership in the Gulf Streamers is limited to owners of Gulf Stream recreational vehicles.

# TIRE INFLATION TABLE SAMPLES

These tables are provided only as a reference. Check your chassis manual for proper tire inflation on your particular motor home.

Tire	Single (S)	E-SCI						Inflat	ion Pre	essure -	- PSI						
Size	Dual (D)	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
LT215/75R15	S	1345	1475	1600	1765(C)	1845	1960	2095(D)	8	9	8 9	- 3	19				
	D	1225	1340	1455	1610(C)	1680	1785	1930(D)	,	3	S 50						,
LT235/75R15	S	1530	1680	1825	1895(C)	2100	2230	2335(D)									
	D	1390	1530	1660	1820(C)	1910	2030	2150(D)									
LT225/75R16	S	1500	1650	1790	1940(C)	2060	2190	2335(D)	2440	2560	2680(E)						
	D	1365	1500	1630	1765(C)	1875	1995	2150(D)	2200	2330	2470(E)						
LT245/75R16	S	1700	1865	2030	2205(C)	2335	2480	2623(D)	2765	2900	3042(E)						
	D	1545	1695	1845	2006(C)	2125	2255	2381(D)	2515	2640	2778(E)						
LT215/85R16	S	1495	1640	1785	1940(C)	2050	2180	2335(D)	2430	2550	2680(E)						
	D	1360	1490	1625	1765(C)	1865	1985	2150(D)	2210	2320	2470(E)						_
LT235/85R16	S	1700	1870	2030	2205	2335	2485	2623(D)	2765	2905	3042(E)	3170	3300	3415	3550	3675	3750(G
	D	1545	1700	1845	2006	2125	2260	2381(D)	2515	2645	2778(E)	2885	3005	3085	3230	3345	3415(G
7.50R16LT	S	1620	1770	1930	2040(C)	2190	2310	2470(D)	2560	2670	2755(E)						
	D	1430	1565	1690	1820(C)	1930	2040	2150(D)	2245	2345	2470(E)						
8.75R16.5	S						2240	2405	2470	2570	2680(E)						
	D						1970	2095	2175	2260	2405(E)						

Tire Size	Max Speed Rating (MPH)	Single (S)				29	Inflat	ion Pres	sure - PSI			w .		To.
		Dual (D)	65	70	75	80	85	90	95	100	105	110	115	120
8R19.5	75	S D	2410 2350	2540 2460	2680 2610	2835 2755	2955 2865	3075 2975	3195 3085	3305 3195	3415 3305	3525(F) 3415(F)		
225/70R19.5	75	S D		2895 2720	3040 2860	3195 3000	3315 3115	3450 3245	3640(F) 3415(F)	3715 3490	3845 3615	3970(G) 3750(G)		
245/70R19.5	75	S D		3640 3415	3740 3515	3890 3655	4080(F) 3970(F)	4190 4115	4335 4265	4540(G) 4410(G)				
245/70R19.5	75	S D				3640 3415	3740 3515	3890 3655	4080(F) 3970(F)	200000000	4335 4265	4540(G) 4410(G)		
265/70R19.5	75	S D				3970 3750	4180 3930	4355 4095	4540 4300	4685 4405	4850 4560	5070 4805	5170 4860	5355(G 5070(G

Tire Size	Max Speed Rating (MPH)	Single (S)	Inflation Pressure - PSI											
			70	75	80	85	90	95	100	105	110	115	120	
9R22.5	75	S	3370	3560	3730	3890	4080	4235	4390	4540(F)				
		D	3270	3410	3550	3690	3860	4005	4150	4300(F)				
10R22.5	65	S	4080	4280	4480	4675	4850	5025	5205(F)	5360	5515	5675(G)		
		D	3860	4045	4230	4410	4585	4760	4940(F)	5075	5210	5355(G)		
11R22.5	75	S	4530	4770	4990	5220	5510	5730	5950	6175(G)	6320	6465	6610(H	
		D	4380	4580	4760	4950	5205	5415	5625	5840(G)	5895	5950	6005(H	
12R22.5	75	S	4940	5200	5450	5690	6005	6205	6405	6610	6870	7130	7390(H	
		D	4780	4990	5190	5390	5675	5785	5895	6005	6265	6525	6780(H	
245/75R22.5	75	S	3470	3645	3860	3980	4140	4300	4455	4610	4675(G)			
		D	3260	3425	3640	3740	3890	4080	4190	4335	4410(G)			

# 255/80R22.5 LRG XZE®, XRV®

PSI kPa		70		80 550	85 590	90 620	95 660	100 690	105 720	110		MAXIMUM LOAD			
		480								760		AND PRES	SURE ON SIDEWALL		
LBS	SINGLE	3875	4070	4300	4440	4620	4805	4975	5150	5205	S	5205	LBS at	110	PSI
	DUAL	7050	7410	7720	8080	8410	8820	9050	9370	9610	D	4805	LBS at	110	PSI
kPa	SINGLE	1760	1850	1950	2010	2100	2180	2260	2340	2360	S	2360	KG at	760	kPa
	DUAL	3200	3360	3500	3660	3820	4000	4100	4260	4360	D	2180	KG at	760	kPa

# **NOTES**