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Owners Manual

https://media.thormotorcoach.com/media/16834/2004-damon-gas_daybreak-challenger-intruder_owners-manual.pdf

DAYBREAK

Challenger
by *Damon* Corp

INTRLIDER

**2003 2004
Gas Motorized**

Damon
Value by Design

Damon

Value by Design

Congratulations on your recent purchase of a Damon Corporation Recreational Vehicle. We sincerely thank you for choosing and putting your faith in Damon, and we *would* like you to know that your satisfaction is of great importance to us. Our major goal is to provide you with a quality recreational vehicle at a reasonable price.

Your unit has been designed to provide you with many years of carefree, comfortable travel and vacationing. We hope that it will bring you that, along with many years of enjoyment and pleasant memories.

This manual will help you better understand the features and operating performances of your recreational vehicle. Please read it and keep it in your vehicle for future reference.

Our customers are extremely important to us, and we want to assure you that we will always strive to do everything possible to continue to earn your trust and goodwill.

Welcome to the wonderful world of RVing and the Damon family.

Happy Travels!

The Damon Corporation





The purchaser of a Damon Vehicle should complete and promptly return to Damon this registration form. This form is not necessary in order to obtain warranty service. However a purchase receipt or other proof of date of original consumer purchase will be required before warranty service is rendered. Federal law requires that Damon maintain records of the names and addresses of the owners of its Vehicles and the respective identification numbers of such Vehicles. The information contained in this and other forms will assist Damon in the prompt servicing of such Vehicles.

I have read, understand, and am fully aware of the terms, conditions and requirements of the Damon Limited Warranty, and how to obtain warranty service under this Limited Warranty. I also have received and read a copy of the Damon Owner's Manual for this RV with a copy of the Limited Warranty.

Last Name _____ First _____ Mi _____

Address _____

City _____ State _____ zip _____

Damon Serial Number _____

Chassis VIN: _____

Date of Purchase: _____

Mileage or Kilometers =(circle one) on Odometer _____

Signature of Purchaser. _____

Signature of Purchased _____

Selling Dealer: _____

City _____ State _____ POP _____

Telephone: _____

DAMON CORPORATION
CUSTOMER SERVICE DEPARTMENT
P.O. BOX 2aaa
ELKHART, IN 46515-2888

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PLACE:
STAMP
HERE

DAMON CORPORATION
CUSTOMER SERVICE DEPARTMENT
PO BOX 2888
ELKHART, IN. 46515-2888

FOLD HERE

TAPE~PLEASE DO NOT STAPLE

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Introduction

This manual describes many features of your motorhome and provides a guide to operating procedures so that you can obtain the best performance from those features. Your motorhome has been designed to conform with, or exceed, the American National Standards Institute A 119.2, NFPA 1192, CANADIAN CSA FEDERAL STANDARD 240 (Canadian-built or units built for Canada), and applicable motor vehicle safety standards. These standards establish the plumbing, heating, electrical and other requirements for quality and safety. The seal attached just outside the entry door indicates compliance with these standards. This seal is the outward sign of internal quality.

Like all automotive equipment, your motorhome will require care and regular maintenance in order to retain its maximum performance characteristics. This manual, along with the specific instructions provided by the leading appliance manufacturers, are in your Owners Information Kit. The Chassis Operator's Manual outlines important areas of service and provides a maintenance schedule. Please follow them carefully to ensure a safe trouble-free service. Study these instructions carefully. A good working knowledge of your unit and how to care for it will help you enjoy many miles and years of recreational living.

If you have any questions regarding operation, maintenance, or service, please contact your dealer immediately so they can assist you. Your dealer's Service or Sales Department is equipped to handle most any problem that may occur. Customer service is of the utmost importance to your dealer and is just as important to the manufacturer. This manual contains a section outlining the warranty and exploring your rights and obligations, as well as the rights and obligations of the dealer and manufacturer, under the terms of the warranty. Please read this section carefully. You will be better informed in case you have a warranty related problem and your dealer will be better able to get you back on the road again in a timely manner.

We sincerely believe that your dealer and the factory representative will be able to solve any problem which may arise. If their combined efforts are not satisfactory, please send a letter describing the circumstances to:

Damon Corporation
Customer Service Department
PO Box 2888
Elkhart IN 46515-2888

You must include the dealer's name, model and serial number of your motorhome. The Damon serial number is located on the bottom of the federal sticker which is located in the driver's compartment area. Thank you for choosing our product. Your dealer and we, the manufacturer, will continually strive to merit your confidence.

NOTICE

Some equipment and features described or shown in this manual may be optional on your model. This instructional manual is of a general nature only. Because of the continuous process of product improvement conducted by Damon Corporation, it is possible that recent product changes may not be included in this manual. Specifications may change without notice. This manual is accurate as of the date of publication. The instructions included in this manual are intended as a guide, and in no respect extend the responsibilities of the manufacturing subsidiary, parent company or affiliates beyond the standard written warranty as presented in this manual.

NOTICE

Photographs or illustrations in this manual are representative of function and may not be specific in their depiction of actual equipment, fabrics, interior or exterior decor, or design options as installed on or in your motorhome.

NOTICE

This product is designed to provide temporary living quarters for recreational, camping, or travel. Use of this product for long term or permanent occupancy may lead to premature deterioration of interior finishes, fabrics, carpeting, drapes, and components. Damage or deterioration due to long term occupancy may not be considered normal, and may void the terms of the warranty, constitute misuse, abuse, or neglect, and may therefore reduce or void certain warranty protection.

Introduction

HOW TO USE THIS MANUAL

Your motorhome has been thoroughly inspected before shipment to the dealer. Your selling dealer is responsible for performing a complete pre-delivery inspection of all motorhome components as specified in the redelivery checklists supplied by the manufacturer. You should receive a copy of these completed checklists from your dealer when the motorhome is delivered to you.

Should a problem arise, your first step is to contact your selling Damon dealer who will be glad to handle your situation. This Owner's Manual is not intended for use as a service manual, but rather as a guide to help you become familiar with your motorhome.

This manual is not model specific, which means that it is used for a variety of different models that Damon manufactures. It is of a general nature, so the illustrations and descriptions may not be exactly as they are in your particular motorhome.

If you are unclear or unfamiliar with any procedure that is described in this manual, see your Damon dealer for further clarification before proceeding.

Damon Corporation uses the following notations to warn the user of possible safety concerns and to provide information that will prevent personal injury to the user and/or damage to the motorhome.



A WARNING INDICATES AN INSTRUCTION OR PROCEDURE THAT YOU MUST FOLLOW TO AVOID SERIOUS PERSONAL INJURY.



A CAUTION INDICATES AN INSTRUCTION OR PROCEDURE THAT YOU MUST FOLLOW TO AVOID DAMAGING EQUIPMENT OR COMPONENTS. SERIOUS PERSONAL INJURY COULD ALSO OCCUR.



A NOTICE INDICATES AN INSTRUCTION OR PROCEDURE THAT IS IMPORTANT FOR PROPER SERVICE. A NOTICE CAN ALSO SUPPLY INFORMATION THAT WILL HELP TO MAKE YOUR CAMPING EXPERIENCE MORE PLEASANT.

REPORTING SAFETY DEFECTS

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

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 and your dealer or Damon Corporation.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (Toll-free: 1-800-424-9153), go to <http://www.safercar.gov>, or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

MAJOR EQUIPMENT SUPPLIERS

Please read your recreational vehicle warranty carefully. It is very important to know what Damon Corporation warrants, and what is warranted by other suppliers' warranties. Damon Corporation does not warrant some items within your vehicle. Below you will find a list of manufacturers who can help you with these components. Please contact them should a need arise.

A & E Awning	260-463-2191
ACME Dash Air Conditioning	800-552-2263
Alpha Systems/ Counter Tops	800-462-4698
ASA Audiovox Backup Monitor & Radio & W & VCR	800-688-3135
Atwood /Water Heater & Furnace & Windows	815-877-5700
Bob Gunn /Velvac Exterior Mirrors	574-262-2518
Bristol Laminating / Corian Countertops	574-848-4461
Carefree Awning	303-469-3324
Cheng (Joe Name rye Dist) 15 amp Converter	574-295-4268
Coleman RV Products / Roof Air Conditioning	316-832-4357
Dometic / Refrigerator & Microwave	574-294-2511
Flor International / Furniture	574-295-5688
Flexsteel / Furniture	574-831-4050
Ford / Chassis	800-392-3673
Generac / Generator	574-293-6503
HWH Hydraulic Motorized Leveling Jacks	800-321-3494
Kwikkee / Electric Step	800-736-9961
Magnetek 130 amp Converter	800-624-6384
Onan / Generator	800-888-6626
Power Gear / Slide Out	800-334-4712
Progressive Dynamics 150 amp Converter	269-781-4241
Putnam / Hitch	517-369-2165
Sealand / Toilet	800-321-9886
Shurflo / Water Pump	800-762-8094
Thetford / Toilet Michigan Residents 313-769-6000)	800-521-3032
Trico (Alta) / Wipers	888-421-5874
Tristar / Microwave	574-534-2119
Ventline / Range Vent & Monitor Panel	574-848-4491
Wedgewood / Range	815-877-5700
Winegard / WAntenna & Satellite Dish	319-753-0121
Wolf / Horse	877-294-6773

This list may not be all inclusive. If you have any questions regarding other components, call Damon Customer Service at 574-264-2900. A complete listing of all your units appliances along with their corresponding serial numbers is located on the wall inside your wardrobe. Please refer to this list if you need to contact the manufacturer regarding the appliance.

Introduction



s 4

Chapter 1 - Warranty

**Damon Corporation Customer Service Department, PO Box 2888, Elkhart IN 46515-2888
(574)264-2900**

LIMITED WARRANTY

Damon Corporation ("Damon") warrants that this recreational vehicle ("RV" or "Vehicle"), when used for its intended purpose of recreational travel and camping, will be free from defects in material and workmanship attributable to Damon for a period of one (1) year or 12,000 miles. The warranty period shall begin on the date that the RV is delivered to the first retail purchaser or the date that the RV is first placed in service by the dealer for personal use prior to sale at retail, whichever occurs first. This Limited Warranty covers only materials, components or parts of the RV manufactured and finally assembled by Damon, and does not replace or extend, the warranties provided by the independent manufacturers which also issued warranties attributable to their products separately for materials, components, or parts used in the manufacture of this RV. For additional limitations on this Limited Warranty, please refer to the section entitled "What is Not Covered" below.

In the event that a defect in materials or workmanship is found to exist, Damon will provide for the repair or replacement of such defective material(s) or workmanship at no charge in accordance with the terms, conditions and limitations of this Limited Warranty provided that the RV owner complies with the following requirements:

(a) notifies Damon or one of its authorized, independent dealers of the claimed defect within fifteen (15) days of the date that the claimed defect is or should have been discovered, and

(b) promptly returns the RV to Damon or an authorized dealer for such repairs. All costs incurred in transporting this RV or warranty service shall be the responsibility of the RV owner unless otherwise approved in advance by Damon.

Damon's obligation to repair or replace defective materials is the sole obligation of Damon under this Limited Warranty. Damon specifically makes no warranty as to the future performance of this RV or any of its materials, components, or parts.

The RV owner's obligation to notify Damon or one of its authorized, independent dealers of a claimed defect does not replace, alter, or modify the obligations, if any, placed on the RV owner to contact Damon directly when pursuing remedies under applicable state or federal laws. When any claims or repairs are not addressed by the authorized Damon dealer, it is the RV owner's responsibility to contact Damon directly in writing.

Damon does not control the scheduling of service work at an authorized repair facility. Delays in scheduling or completion of work may be unavoidable. If you need assistance in obtaining the benefit of this Limited Warranty, please contact Damon at the above telephone number.

WHAT IS NOT COVERED

This Limited Warranty does not apply to and Damon will not be responsible for the following:

1. Items added or changed after the RV leaves the possession of Damon,
2. Any RV used for rental or other commercial purposes,
3. Normal wear and usage,
4. Damage, even to otherwise warranted components or parts, due to accident, misuse whether or not foreseeable (including failure to maintain recreational vehicle in accordance with the owner's manual), abuse, hail, earthquake, water or flood, windstorm, lightning, hurricane, other acts of nature, damage or corrosion due to environment, theft, vandalism or other intervening acts not attributable to Damon,
5. Scratches, dents, chips or defacing of any surface or fabric of this RV not caused by Damon or which constitute normal wear and tear;
6. Damage resulting from tire wear or tire failure,
7. Periodic maintenance, including but not limited to re-caulking the body of the RV, tightening screws, adjusting doors, lubricating, cleaning or polishing the RV or chassis, replacement or repair of items as a result of RV use, wear or exposure, such as oil, alters, brake pads, and linings;

Chapter 1 - Warranty

8. Any material, component, or part of the RV that is warranted separately by its manufacturer including but not limited to tires, batteries, microwave, generator, VCR, CB radio, CD player, tape player, radio, speakers, television, home theater, satellite dish, dryer, washer, inverter, cellular phone, refrigerators, range, hot water heater, stove, carbon monoxide detector, smoke detector, furnace, roof air conditioners, dash air conditioner, and the chassis and other items supplied by the chassis manufacturer. The chassis includes any components of the powertrain control system, engine or brake systems, cooling system, chassis electrical system, muffler, tires, tie rods, shocks, struts, and steering system, including the steering wheel. The written warranty provided by any component manufacturer is a direct responsibility of that manufacturer; please refer to that manufacturer's warranty for any pertinent terms and conditions. Damon makes no warranty as to any of the components separately warranted by another manufacturer; and
9. Damage due to alteration of the RV, or any of its components or parts, that is not authorized in writing by Damon.

NOTICE

This RV, like an automobile, requires proper care and maintenance by the owner. The accessories and appliances must be properly used. Failure to provide proper care and maintenance or to observe the proper handling and use of accessories and appliances may result in damage to the RV or its components. Damon will not pay for the cost of repairing or replacing items that are damaged as a result of lack of care or improper use, nor for damage to other parts of the RV that result from such lack of care or improper use. By design, these products are not intended or equipped to meet the needs of a permanent or semipermanent home; therefore, any such use shall void Damon's Limited Warranty.

RV OWNER OBLIGATIONS

The RV owner shall give written notice to Damon at the above address, or one of its authorized, independent dealers, of any claimed defect within fifteen (15) days after it is or should have been discovered. Any action to enforce the terms of Damon's Limited Warranty shall be commenced not more than six (6) months after the date notice is given.

LIMITATION AND DISCLAIMER OF IMPLIED WARRANTIES

DAMON EXPRESSLY LIMITS ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND OTHER IMPLIED WARRANTIES APPLICABLE TO THIS RV TO THE DURATION OF DAMON'S EXPRESS WRITTEN LIMITED WARRANTY ONE (1) YEAR OR TWELVE THOUSAND (12,000) MILES, BEGINNING ON THE FIRST DATE THAT EITHER THE RV IS TENDERED TO THE FIRST RETAIL PURCHASER, OR THE DATE THAT THE RV IS FIRST PLACED IN SERVICE BY THE DEALER FOR PERSONAL USE PRIOR TO SALE AT RETAIL. PERFORMANCE OF REPAIRS OR NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN LIMITED WARRANTY OR ANY IMPLIED WARRANTY. DAMON SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST WAGES, PAYMENTS ON ANY INSTALLMENT RETAIL LOAN, OR VEHICLE RENTAL EXPENSES) RESULTING FROM BREACH OF THIS WRITTEN LIMITED WARRANTY OR ANY IMPLIED WARRANTY.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitations of incidental or consequential damages, so the above limitations may not apply to you.

Damon makes no warranty or other representation with respect to the condition of the RV beyond that contained in this warranty. Any opinions or representations contained in any promotional literature with respect to the RV or any other Damon product are strictly the opinion of Damon, and do not constitute a warranty of any kind, including any warranty of performance or quality. No person, including without limitation any independent, authorized dealer, has the authority to enlarge, amend, or modify this Limited Warranty.

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

Damon reserves the right to make changes in Vehicles built and/or sold by it at any time without incurring any obligations to make the same or similar changes on Vehicles previously built and/or sold by Damon.

As the proud owner of a Damon motorhome, you want to trust that your unit will continue to perform at its peak. To ensure this Damon has provided you this checklist of the responsibilities of the Damon owner. Please make sure that this list is carefully observed and adhered to in order to maintain your Limited Warranty.

Please refer to the Maintenance Schedule to determine when your Inspections should take place.

Check both house batteries and chassis battery and tighten connections if necessary. Clean the terminals if necessary. Check to make sure that the batteries have the proper water levels in them, and fill if necessary. Check the charge and recharge if necessary. ^{Keep} connections clean and covered with a light coat of grease.



There is a certain danger involved when working with batteries. If you are unfamiliar with these dangers, contact a Damon dealer.

Just as in your home, it is the owner's responsibility to periodically check the batteries in the smoke detector, LP detector and carbon monoxide detector when applicable. We recommend that you change the batteries every six months to ensure proper working order.

The owner is responsible for checking to ensure that the vehicle has as little condensation in it as possible. The condensation in a motorhome is much greater than in most houses because the insulated walls of the vehicle are much thinner than house walls, and the small size and tight construction of the vehicle allow a quick buildup of high moisture levels in the inside. This can be reduced by always keeping the bathroom door closed and the window or vents open when bathing, and for a period of time when you have finished bathing to allow for dissipation of all the moisture. Use your vent hood and fan when cooling down. Don't hang wet clothes in your unit to dry. When left for prolonged periods of time, condensation can cause considerable damage to your vehicle.

Most exterior parts of your motorhome are made of fiberglass, which is a very durable material, but not indestructible. Exposure to the elements can cause premature deterioration without routine maintenance, especially in hotter climates. The effects may be, fading, yellowing, or chalking, however these are surface cosmetic changes, which do not affect the strength of your unit. Simple maintenance through cleaning by washing and waxing will ensure lasting beauty.

The same fading may occur to carpeting and upholstery. Be sure to keep your shades down in extremely sunny locations and maintain proper cleaning techniques for both carpet and upholstery.

PRODUCTION CHANGES

OWNER RESPONSIBILITY CHECKLIST

BATTERIES

BATTERY REPLACEMENT

CONDENSATION

EXTERIOR/ INTERIOR

Chapter 1 - Warranty

FRONT END ALIGNMENT

The front suspension and steering system of this vehicle was factory aligned using highly accurate equipment prior to delivery to the dealership. **We recommend that the alignment is checked after you have fully loaded the motorhome according to your personal needs. If necessary, adjust alignment for the loaded motorhome.** Thereafter, the alignment should be inspected yearly to help prevent uneven tire wear.

POTABLE TANK

Sanitize the fresh water system at least once per year or whenever the motorhome is unused for prolonged periods of time (see p. 26). This will help keep your water system fresh and discourage the growth of bacteria that can contaminate the water supply. Make sure that the tanks are properly treated with the right chemicals for disinfection.

PROPER LOAD BALANCE

Your motorhome is built to withstand a certain maximum load. Check the amount listed on the Federal Certification Label in the driver's area of your motorhome to determine safe load limits. **NEVER OVERLOAD THE MOTORHOME.** Reference pages 11, 16 and 17 for proper loading and weight distribution.

SEALANTS

Weatherproofing sealants are used around the doors, windows, vents, and joints during construction of your motorhome. These sealants are subject to the same deterioration from exposure as the fiberglass components, and must be checked periodically to assure the weatherproof integrity of your unit. If evidence of cracking or voids in the sealants is apparent, have your dealer reseal these areas. Proper sealant coverage should be checked and resealed at least once every six months. Please see Chapter 9 - "Care and Maintenance" for instructions on properly sealing the roof area. Failure or neglect of proper sealant maintenance could result in leakage, and may reduce or void your warranty protection.

SERVICE CALLS

It is important that the owner realize that Damon's Limited Warranty covers warrantable repairs that are performed by an authorized Damon dealer at their service center or facility only. If you are unable to bring your unit in for repairs, Damon is not responsible for the cost of the actual service call charged to come out to your unit.

SLIDE OUT LUBRICATION

If your slide-out system becomes squeaky or makes any noises while operating, it is permissible to apply a coat of lightweight oil to the drive shaft and roller areas located below the main floor. Remove any excess oil so dirt and debris cannot build up.

STEP LUBRICATION

To maintain the integrity of the retractable step in your motorhome, you must periodically inspect it for rust or damage, also see that it is lubricated to function safely and to ensure proper working order.

TIRE PRESSURE

The owner is responsible for maintaining proper tire pressure in the vehicle's tires. Check the tire specifications on the Federal Certification Label located in the driver's area for the proper pressure. You will ensure optimum driving standards by keeping your *vehicle* maintained.

Never forget to remove your travel bars from your slide-out prior to opening. Failure to do so could result in severe damage to yourself and/or your motorhome, which will not be covered under the Limited Warranty.

Like most cars, your motorhome's windshield is not covered under the Limited Warranty. Items such as cracks, stone chips and holes are regarded as normal wear and tear, and will not be considered as a manufacturing defect.

Please make sure that your vehicle is properly winterized before long periods of storage. To find a complete listing of the winterization procedures, refer to this manual's section called "Winterization Procedures" (p. 60). Failure to properly winterize your vehicle may result in damage to your motorhome which would not be covered under the Limited Warranty.

TRAVEL BARS

WINDSHIELDS

WINTERIZATION

Chapter 2 - Planning and Preparation

A thorough working knowledge of your motorhome is important if you are going to get the most out of the convenience and safety items built into your unit. Be as familiar with it as you are with your personal car or truck. Study all the booklets included in your Owner's Information Kit. These booklets cover details of operation for the major appliances and equipment built into your motorhome for your comfort, convenience and safety. Your selling dealer should provide you with a complete walk through of your vehicle at the time of purchase. Any questions and concerns should be addressed at that time.

The vehicle licensing laws vary from state-to-state. Check with your state license bureau or nearest branch office for the requirements of your state. Be sure to renew your license if it has expired or will expire during your trip. Your *Motorhome* is considerably larger and heavier than *your car*, therefore certain precautions should be exercised. A CDL license may not be required to operate your motorhome, but Damon Corporation recommends you attend a CDL class to better understand the motorhomes driving and handling characteristics. Damon Corporation wants your driving experience to be pleasant and enjoyable.

Talk to your insurance agent about the appropriate coverages for your motorhome. Always carry your policy card.

Follow a consistent schedule of inspection and maintenance for your motorhome. Your continuing safety and comfort depend on it. This manual includes recommended maintenance intervals and instructions. Adherence to these schedules will minimize the possibility of failure of any important system or part of your motorhome. The time spent inspecting and maintaining your motorhome will provide you with many years of recreational pleasure. Improper inspections or maintenance neglect may invalidate your Limited Warranty.

Proper loading is one of the most important considerations when traveling in a motorhome. Your motorhome is built to withstand a certain maximum load. Check the Federal Certification Label located in the driver's area to determine the safe load limits. For safety's sake, **NEVER OVERLOAD THE MOTORHOME**. This chapter contains information about proper loading and weighing of your motorhome.

Know how to control your motorhome on the highway. Be familiar with passing and stopping requirements, and problems that can develop. Know how to brake properly, how to back up and how to turn. Practice in a secluded place until you become familiar with the handling characteristics and techniques of your motorhome. Don't overlook the laws of your state that govern driving a motorhome. Your state Motor Vehicle Department office can provide you with the applicable vehicle codes that spell out your rights and responsibilities as a motorhome owner.

READ THE BOOK

LICENSES

14

INSURANCE

INSPECT AND MAINTAIN

LOADING AND WEIGHT of the Motorhome

CONTROL OF THE MOTORHOME

Chapter 2 - Planning and Preparation

PRE-TRAVEL CHECK

Whenever you depart, be it from your home, rest area, or campsite. You should perform these pretravel checks:

TIRES

should be inspected before each trip for uneven wear, road damage, foreign objects, peeling or bulging, and correct tire pressure. Heat generated by surface friction will increase the tire's air pressure, therefore do not bleed air out of a hot tire. Check tire pressure after the vehicle has been parked for at least one hour. Inflate tire to recommended pressure as indicated on the side of the tire or in tire manufacturer's instruction booklet. (See maintenance schedule on page 65)

CAUTION

Proper tire inflation is extremely important.

CAUTION

When purchasing a new tire, be sure it is the same size and has the same ply rating and load range as the original tire. DO NOT mix radial ply with bias or bias-belted tires.

WHEEL LUGS

Must be tightened to the specifications in the chassis manufacturer's owner's manual.

WINDSHIELD

Should be clean, wiper blades inspected, and windshield washer reservoir filled.

LIGHTS

Should be tested, including brake lights, warning flashers, clearance lights, taillights, turn signals and headlights. Clean all lens covers.

REARVIEW MIRRORS

Should be adjusted so the driver can see to the rear on both the right and left side of the unit.

POWER CORD

(120-Volt shoreline) must be unplugged from the external source and properly stored for transit, also making sure the cord hatch is secured.

WATER FILL

Hoses must be disconnected, properly drained and stored, and the caps and hatches secured. Fill the fresh water tank as required prior to storing hoses.

SEWAGE

Should be emptied from the holding tanks before traveling. Termination valves must be closed and locked. The sewer hose must be removed from the termination valve outlet and stored. Termination cap must be securely fastened to the termination outlet.

ENTRY STEP

Must be returned to its travel position. Pay special attention to this every time you move your unit. Severe damage may result if not retracted during transit.

LPGAS TANK

Levels at the monitor panel should be checked, and gas line connections should be checked for leaks.

CAUTION

Some states prohibit vehicles equipped with LP gas tanks from using tunnels. A few other states prohibit traveling with the solenoid valve open and the pilot light lit. Check the regulations of the states through which you intend to travel.

Should be closed and secured. Loose items should be secured or stored away.



Be sure all loose items are secured or properly stored while the vehicle is in motion. Possible overlooked items may include canned goods, small appliances (on countertop), cooking pans (on range), or free standing furniture. These items could become dangerous projectiles during a sudden stop.

For storage and equipment should be closed and locked, also making sure that loose items are secured or stored for transit

Door should be secured with the travel latch, and the items inside made ready for transit.

Should be closed and secured or adjusted as desired.

If the motorhome was properly and carefully prepared for storage, taking it out of storage will not be difficult. The following checklist assumes that you stored your RV with care. If you didn't, and extensive freeze damage or other serious deterioration has occurred, consult your dealer or an authorized service center for advice.

- ☐ Thoroughly inspect the outside of your RV. Look for animal's nests in wheel wells, in engine, air cleaner, or in other out of the way places. Clean all appliance exhaust vents, ceiling vents and air conditioning covers.
- ☐ Check that all furnace, water heater and refrigerator openings are free of debris, insect nests, webs, etc.
- ☐ Open all doors and compartments. Check for animal or insect intrusion, water damage, or other deterioration.
- ☐ Check charge level in batteries. Refill with distilled water and recharge if necessary. Reinstall batteries if necessary. Be sure cable ends and terminals are clean and free of corrosion. Turn the Battery Disconnect Switch off if applicable.

Check tire pressure. Inflate to the specified cold pressure.

- ☐ Remove coverings from windows if necessary.
- ☐ Open vents and windows for ventilation.
- ☐ Drain, flush and sanitize the fresh water system. (see Chapter 5 - "Plumbing Systems") Inspect drain lines for leaks. Replace if necessary. Do not try to repair, as this is usually ineffective.
- ☐ Install a new water filter (if your unit is equipped with this).
- ☐ Operate all faucets and fixtures in the fresh water system. Check for leaks at all joints and fittings. Repair if necessary.
- ☐ Check 12-Volt circuit breakers and inspect all fuses.
- ☐ Operate all 12-Volt lights and accessories.
- ☐ Install new batteries in battery operated devices.
- ☐ Test LP gas, smoke and carbon monoxide detectors. Replace the batteries if necessary.
- ☐ Check the monitor panel operation.

DOORS AND DRAWERS

COMPARTMENT DOORS

REFRIGERATOR DOOR

WINDOWS AND VENTS

OPENING CHECKLIST

1945 1949 1954 1957 1966 1971 1978 1989 1997 1999 2001 2008 2012 2013 2015

End of World War II
Establishment of the People's Republic of China
First Sino-Soviet Treaty of Friendship and Alliance
Launch of the Great Leap Forward
Start of the Cultural Revolution
China's admission to the United Nations
Start of Reform and Opening Up
Tiananmen Square protests
Handover of Hong Kong
Handover of Macau
China joins the World Trade Organization
Beijing Olympics
Xi Jinping becomes General Secretary of the CPC
Xi Jinping becomes President of China
Xi Jinping becomes Chairman of the Central Military Commission

- The RVIA Weight Label, found in the kitchen area, is installed in the vehicle as required by RVIA standards. It contains information that will be helpful in determining proper loading. The label will also list the Vehicle Identification Number (VIN), GVWR, UVW, Sleeping Capacity Weight Rating (SCWR), and the Cargo Carrying Capacity (CCC).

[illegible]

GROSS VEHICLE WEIGHT RATING (GVWR) is the maximum permissible weight of this fully loaded motorhome.

UNLOADED VEHICLE WEIGHT (UVW) is the weight of this motorhome as manufactured at the factory with full fuel, engine oil and coolants.

SLEEPING CAPACITY WEIGHT RATING (SCWR) is the manufacturer's designated number of sleeping positions multiplied by 154 lbs.

CARGO CARRYING CAPACITY (CCC) is equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water heater), full LP-Gas weight and SCWR.



Dealer installed equipment and towed vehicle tongue weight will reduce CCC.

GROSS AXLE WEIGHT RATING (GAWR) is the maximum weight a specific axle is designed to carry. Each axle has its own GAWR.

These ratings are shown on the RVIA Weight Label. They are the **MAXIMUMS** for a fully loaded vehicle. You must compare *the GVWR* and *the GAWR* to the actual loaded weight of your motorhome and make adjustments if necessary. (See p. 16) The GAWRs do not necessarily add up to the GVWR.



Neither the **axis loads** nor the vehicle loads must **ever** exceed their respective weight ratings.

A properly loaded *vehicle* is safer and easier to drive. Distribute your cargo evenly from side-to-side and front-to-back. Heavier items should be stowed on or near the floor and be as centrally located as possible. They should be secured so they cannot slide during a panic stop causing damage. Lighter items can be stored in overhead cabinets. Remember to leave space and weight allowance for souvenirs and other items you may purchase during your travels. A properly loaded vehicle can help you *coarsen/e fuel* and prevent excessive wear on your vehicle's automotive system.

During the design and development of your motorhome, the number and size of storage compartments, the liquid tank capacities and the number of Designated Seating Positions are maximized for value and convenience. If the motorhome operator fills all liquid tanks to capacity, fills all storage compartments and cupboards to maximum volume and fills all available assigned seating positions with passengers, the motorhome could be overloaded. Please use the Recreational Vehicle Industry Association's figures shown below to help you to determine your weights.

- Average vehicle occupant= 154 pounds
- One gallon of gasoline = 7 lbs

WEIGHT RATINGS

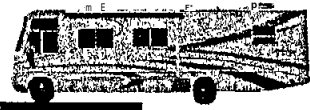
CAPACITY

Chapter Z - Planning and Preparation

- One gallon of water = 8.3 lbs
- One gallon of LP gas = 4.2 lbs

The operator is responsible for analyzing the conditions in which the motorhome will be utilized for each trip. The number of passengers and placement of cargo can affect the amount of water capacity that you carry. A smaller passenger capacity for camping provides reasonable cargo capacity for trips taking more than one day. A larger passenger capacity for day use provides less cargo capacity for trips or 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 day use passengers.

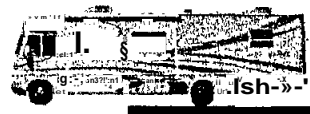
WEIGHING YOUR LOADED MOTORHOME



Reading 1



Reading 2



Reading 3

1. Drive the front wheels onto the scale platform and take a reading. This is the front Gross Axle Weight (Reading 1).
2. Drive the entire vehicle (all axles) onto the scale and take a reading. This is the Gross Vehicle Weight (Reading 2).
3. Drive forward until only the rear axle is on the platform and take a reading. This reading is the rear Gross Axle Weight (Reading 3).
4. Compare reading 2 with the GVWR (Gross Vehicle Weight Rating) of your vehicle located on the Federal Certification Label. If the reading exceeds the GVWR rating, you will have to reduce the total vehicle load.
5. Check readings 1 and 3 to verify that each is less than the GAWR on the certification label. If either exceeds the GAWR for the axle(s), redistribute enough of the load to ensure that loads on the front and rear axle(s) are within the required limit



Do not exceed the gross **axle** weight ratings of any **axle**.

Do not exceed the maximum hitch weight rating.

Do **not** exceed the gross vehicle weight rating of either the motorhome or the towed vehicle. Do not exceed the gross combined weight rating of the motorhome. Exceeding any of these ratings may cause unstable driving and handling characteristics, damage to your motorhome chassis or towed vehicle and may void your warranty protection.

GROSS COMBINED WEIGHT RATING (GCWR): is the maximum allowable loaded weight of this motorhome and any towed trailer or towed vehicle. See the chart located on the Federal Certification Label located in the drivers area to determine the correct GCWR for your vehicle.

Gross Combined Weight: GCW is the total weight (including driver, passengers, all cargo, fuels, and fluids) of the motorhome and the towed vehicle combined. Compare the GCW with the GCWR. If the GCW is greater than the GCWR, then weight must be eliminated until scale weights are equal to or less than proper ratings.

The distribution of weight in your motorhome is a very important factor: Too much weight either on one side of the vehicle or too much weight in the rear compared to the front can adversely affect the handling characteristics of the vehicle, and in some cases can result in overloading the tires or axle components. When loading, you should evenly distribute the weight to ensure the axle weight is equal to or less than the GAWR indicated on your Federal Certification Label.

This type of balance provides the best handling characteristics of the vehicle. Small percentage differences will not make a great deal of difference. A unit that is too light on the front axle and too heavy on the rear axle can result in steering difficulties.

By knowing what your vehicle weighs, you can determine the best location for your belongings. Simply because you can fit everything in one compartment for easy access, does not mean that this is the best place for an item. Your home is now moving down the road, so the little things like location of heavy items become important from more than an accessibility standpoint.

If you expect to pull a vehicle or trailer with your motorhome, please use these guidelines when choosing a vehicle or trailer:

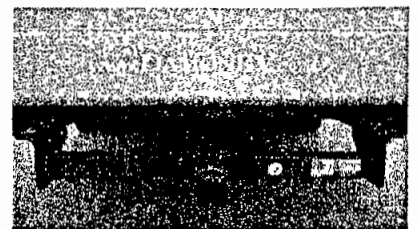
- o Do not load over the weight indicated on the label on the hitch.
- o Hitch Classification: Class III = See the label on the hitch to find your maximum hitch weight and towing weight
- o Vehicle/Trailer weight Do not tow a vehicle/trailer weight more than recommended by the class rating of your hitch, or more than recommended by the chassis manufacturer, whichever is less. The motorhome's braking system is rated for operation at the total GVWR of the motorhome.



For your safety, Damon Corporation recommends that a separate functional braking system be used on any towed trailer or vehicle, including those dolly towed or towed.

WEIGHT DISTRIBUTION

TRAILER HITCHES AND TOWING

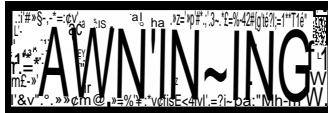


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Chapter 2 - Planning and Preparation

TOWING VEHICLES AND TRAILERS

If you plan to tow a vehicle or trailer with your motorhome, the tongue weight must not exceed the maximum allowed hitch weight. The Gross Combined Vehicle Weight must not exceed the GCWR of your chassis. To determine how much weight your motorhome can tow, have your *vehicle* weighed when it is properly loaded, as you would have it when you are ready to depart for your trip. Subtract this total weight from the GCWR weight on your Federal Weight Label. This difference is the total amount that you may safely tow behind your motorhome.



This Combined Vehicle Weight cannot exceed your Motorhomes specific GCWR.

Example: If you have a GVWR of 22,000# and your unit weighs 17,917#.

GVWR= 22,000#

Subtract Unit weight= 17,917#

4,083# Available for cargo in the motorhome
providing you DO NOT overload the
individual GAWR's.

Example: If you have a GCWR of 26,000# and your unit is fully loaded to its maximum GVWR of 22,000#

GCWR= 26,000#

Subtract Unit weight= 22,000#

4,000# Available to tow a vehicle or trailer
behind the motorhome. This is the
MAXIMUM weight your unit is certified by
the chassis manufacturer to safely pull.
DO NOT exceed the ratings of the label
on the hitch or the GCWR of the chassis.

Chapter 3 - On the Road Safety

Seat belts are an important safety feature of your vehicle. Each designated seat is designed to carry passengers while the vehicle is in motion. Each Designated Seating Position is equipped with either a type 1 (lap belt) or a type 2. (shoulder and lap belt) The number of seats equipped with seat belts is to provide a choice of seating locations. This does not necessarily mean that you may safely carry that many passengers. Refer to "Cargo Carrying Capacity" (p. 15) in the loading section for proper loading techniques.

To adjust your seat belt:

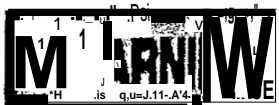
- Pivot the buckle at a right angle to the belt and pull to the desired length.
- Make sure the belt is not twisted, and press the tongue end into the buckle end. *Be sure the two are latched together, and adjust the belt snugly around your abdomen.*
- To release, simply depress the button in the center of the buckle and remove the tongue.

Child restraint seats may be used with the lap belts provided. Check the restraint seat instructions for proper installation and adjusting. Child restraint seats are required to a certain age. Check with the states in which you will be traveling for the proper age requirements.



While the motorhome is in motion, passengers should be seated with seat belts fastened. Do not allow passengers to occupy any position that is not equipped with a seat belt.

Use only recommended fuel as specified by the chassis manufacturer. Do not overfill the fuel tank, but allow for expansion of fuel (caused by rising temperatures) by stopping the filling process when the pump automatically shuts off.



Modern fuel systems may build up vapor pressure within the tank as the fuel warms during use, or in hot weather. Under certain conditions, sudden release of this pressure when removing the filler cap can spray fuel from the opening, causing a possible hazard. When removing the filler cap, rotate it slowly, only far enough to allow pressure to release. After any hissing sounds die down, complete the removal of the cap. To protect the gasoline system from excessive pressure or vacuum, or from sudden release of pressure, replace lost caps with caps of the same design available from your motorhome dealer.

Once you have become accustomed to the feel of the controls and the reference points from the driver's seat, you will find driving the motorhome comparable to driving your family car. Become familiar with the position of the motorhome in traffic, and be cautious while maneuvering to allow for the length and width of the vehicle. Always allow extra room to come and to change lanes. Learn to use the side mirrors to view the road behind. Check them often.

SAFETY BELTS

FUEL SYSTEM

DRIVING

Chapter 3 - On the Road Safety

Drive with consideration on the highway, observing all speed and safety regulations. The best cruising speed of your motorhome will vary with road and weather conditions.

Remember that your motorhome is heavier than a car, making it less maneuverable and harder to stop. Be prepared to brake earlier than you normally would a car. Also, because of its greater side surface area, it is more easily affected by cross winds. Allow extra distances for passing and stopping, and drive at a moderate speed, particularly in traffic and in gusty wind conditions.

Driving on winding or mountain roads is not difficult if done with reasonable care. Observe proper vehicle speeds when ascending or descending hills and always operate in the proper transmission range. Downshift on *hills to avoid* overheating or undue engine loads. Downshift before descending grades. Engine braking power will help control vehicle speed and relieve some of the strain on the brakes.

Road conditions, terrain, weather, and other driving factors are sometimes unpredictable, and mountain driving or desert temperatures can put extreme demands on drive train components, especially the transmission. Under extreme heat conditions you may need to turn off the vehicle air conditioner to improve engine and transmission cooling.

Allow for the extra height of your motorhome and avoid areas having low overhead clearance. Check for low hanging free branches or other obstructions wherever you drive or park. Avoid low roof heights when pulling in for service. This may be particularly important if you drive with the overhead vents open or if the motorhome is equipped with a roof air conditioner, roof rack, or W/radio antenna. Check the total height for your particular motorhome and make sure that you are aware of it when driving under bridges or underpasses.

PARKING

When parking parallel to a curb, be sure to allow for poles or obstructions as the front and rear portions of the motorhome will swing wider than an automobile. Remember that your motorhome is larger than your automobile and will require more space. Be careful your unit does not occupy road space or block driveways while parking. When parking on an incline, turn the front wheels into the curb in the direction of the roll to aid the parking brake. Always set the parking brake when parking.

CHANGING TIRES

Changing a tire on a motorhome is more difficult than an ordinary automobile. Motorhome tires are larger and heavier than ordinary tires. Whenever possible, call for roadside assistance to help you in changing your tires. This task should not be done alone due to the weight of the unit. Motorhomes are extremely heavy. Changing a flat tire is best left to a professional mechanic with the proper equipment.

If absolutely necessary, change the tire on a level and firm surface. If you are on the roadside, activate the vehicle's hazard warning flashers. Apply the parking brake. Set up flares and or warning lights.. See the chassis manufacturer's owner's manual for specific jacking and tire removal, and replacement instructions, which pertain to your unit. Lug nuts should be tightened in a star pattern, all Fords to 140 ft-lbs., Workhorse 15,000 GVWR to 150 ft-lbs., Workhorse 17,000 and 18,000 GVWR to 175 ft-lbs., and Workhorse 20,500 and 22,000 GVWR to 450-500 ft-lbs. After operating 50-100 miles, retighten to the same specification. If you don't have proper equipment, stop at the nearest service facility and have the torque of the lug nuts checked.

AcAuron Never place the jack under a bump or under the edge of the sidewall. Always place the jack as specified by the chassis owner's manual. Never use the rear differential as a jacking point. Use the jack only for changing tires. NEVER get underneath the vehicle when using the jack, never start or run the engine while the vehicle is on the jack. Always securely store the spare tire and return all jacking equipment to its proper storage area.

The most important factor in maximizing the life of your tires is maintaining proper inflation pressure. An under inflated tire will build up excessive **heat** that may go beyond the prescribed limits of endurance of the rubber and the radial cords. Over inflation will reduce the tire's footprint on the road, reducing the traction, braking capacity, and handling of your vehicle. An over inflated tire will also cause a harsh ride and uneven tire wear.

To determine the correct air pressure for your tires, load your motorhome as you would normally for travel, including water and fuel. Determine the correct air pressure for the weight on each axle and adjust the pressure according to the Federal Certification Label when the tires are cool or have not been driven for more than one mile. Never reduce the air pressure in a hot tire.

CAUTION Never let air out of a hot tire

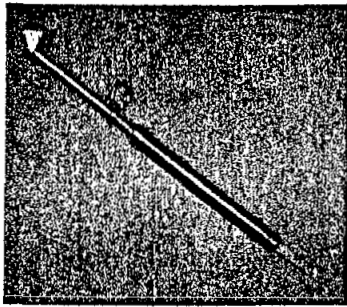
Now that you have found what the correct air pressure per axle needs to be for your motorhome when loaded, you need to know when to check your air pressure. You should check the air pressure every two weeks or at least once a month and before any major trip. Your motorhome's air pressure should be checked every morning on long trips. On short trips of a day or less of driving each way, your tires should be checked before you start your trip home. If your vehicle is stored for any length of time, the air pressure should be checked prior to storage, but more importantly, when it comes out of storage.

Check your tires when they are "cold" and have not been driven for more than one mile. The stated load capacity for a given cold inflation pressure is based on ambient outside temperature.

TIRE CARE

CHECK AIR PRESSURE

Chapter 3 - On the Road Safety



To maintain the inflation pressure in your tires you will need the proper equipment. It is recommended that you purchase a quality truck tire Dr gauge, which has an angled dual head. This type of gauge allows you to check inflation on the inner dual wheel which has the valve stem pointed away from you. Nothing should restrict your ability to check your tire's air pressure daily when you are driving your motorhome. Pressure sealing valve caps should always be used to prevent air from escaping from the valve stem. If you use valve stem extension hoses, make sure they are good quality stainless steel bra'd reinforced, and are securely anchored to the outer wheel. If your motorhome has wheel covers which must be removed to check the inflation, then consider removing them as the extra time and effort required may lead you to avoid checking your pressure.



When replacing your tires always make sure the proper size and rating is used. Check the federal certificate located in the drivers area for your model's specific size and rating.

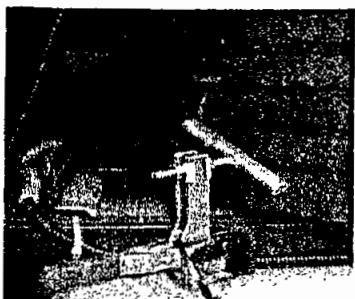


In a sudden stop or collision, loose equipment could strike someone. Storing a jack, a tire, or other equipment in the passenger compartment of the vehicle could cause injury. Store and secure all of these items in a proper place.



Damon does not provide jacks with our motorhomes.

SPARE TIRE REMOVAL



Daybreak and some Challenger Models

1. Insert the flat end of the crank handle into the hole in the rear tube located above the hitch. The crank handle is stored in a rearward drivers lower compartment. Turn the crank counter clockwise and lower the tire to the ground.
2. Remove the wheel plate from the center of the rim and slide the tire out from under the motorhome.
3. To reinstall, reverse the above procedure.
4. When raising the tire, assure the cable is 90 degrees to the tire. When the tire is tight to the mounting bracket, continue cranking until the lifting mechanism makes a loud 'click'.

Intruder and some Challenger Models

1. Unhook the mechanism holding the tire in place.
2. Pull the tire straight out and drop it gently to the ground.
3. Store your flat tire in this space until it can be serviced.

Chapter 4 - Safety Provisions

Your motorhome has been supplied with various safety features and equipment for your convenience and for safe operation. As with all areas in life, the chance for accidents is possible, and the recreational lifestyle is no exception. Please take the time to familiarize yourself with the safety features of your motorhome now to prevent any question of how they are used if an emergency should arise.

Please refer to the smoke detector manual in the Owner's Information Kit for operating instructions.



Test smoke detector operation after vehicle has been in storage, before each trip, and at least once per week during use. Replace battery every six months.



The motorhome should never be operated or occupied unless the smoke detector is present and functioning properly.

Each motorhome is equipped with a portable fire extinguisher mounted close to the main entry door. This fire extinguisher is rated for Class B (gasoline, grease, flammable liquids) and Class C (electrical) fires. Test your extinguisher as recommended by the fire extinguisher manufacturer, and replace after use. Be familiar with your fire extinguisher location and its operation.

An LP gas detector located near the floor in the galley area, will sense the presence of LP gas leakage. The detector will sound an alarm if LP gas is detected. Test the leak detector weekly.

The LP detector gets its power from one of the circuits in the load center. Because these circuits are on the load side of the battery disconnect, the LP detector will be disabled (along with all other 12-Volt house powered devices) when shore power is removed and the battery disconnect is in the storage mode. While this is ideal when your coach is in storage and the LP system is shutdown, there will be no warning if this should happen while camping and an LP leak occurs. To warn you of this possible hazard, a label is located near the LP gas leak detector.

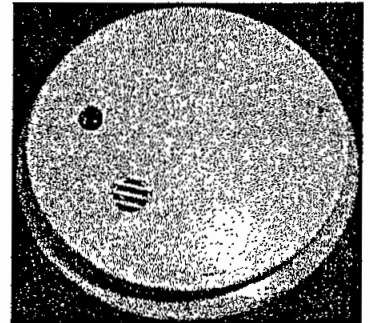


The LP gas detector is operated by the 12-Volt house wiring and will be disabled when batteries are in the storage mode and shore power is removed.



The motorhome should never be operated or occupied unless the LP gas detector is present and functioning properly.

SMOKE DETECTOR



FIRE EXTINGUISHER

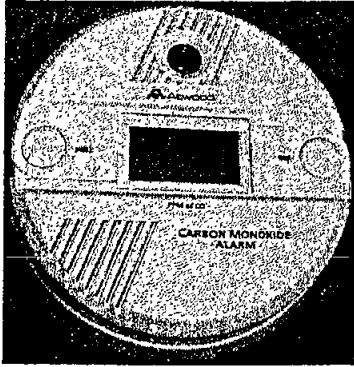


LP GAS DETECTOR



Chapter 4 - Safety Provisions

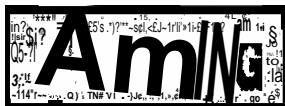
CO DETECTOR



CO SAFETY PRECAUTIONS

A carbon monoxide detector is installed in each vehicle. It is usually located on the bedroom or hall wall about five feet from the floor. Test it before every trip to ensure that it is functioning properly.

Carbon monoxide is a colorless, tasteless, odorless gas. It is a by-product of all combustion in the engine, generator and LP appliances. The engines in your motorhome and generator system produce it constantly while they are running. CARBON MONOXIDE IS DEADLY. Please read and understand the following precautions to protect yourself and others from the effects of carbon monoxide poisoning.



Exhaust gases are deadly. Do not block the tail pipe or situate your vehicle or LP appliance exhaust systems in a place where the exhaust gases have any possibility of accumulating either outside, underneath, or inside your vehicle or any nearby vehicles. Outside air movements can carry exhaust gases inside the vehicle through windows or other openings remote from the exhaust outlet. Operate the engine only when safe dispersion of exhaust gases can be assured.



The motorhome should never be operated or occupied unless the CO Detector is present and functioning properly.



Do not under any circumstances operate the vehicle or generator engine while sleeping.

BATTERY INSTALLATION

The carbon monoxide detector is installed without batteries. To install the batteries, press the tab at the top of the CO detector and slide the detector upwards. Open the battery compartment door by hinging the left lower side downward. This exposes the battery compartment. Install the batteries as indicated. The detector should beep indicating correct installation. Reverse the above procedure to reinstall the detector. Test the detector before you start every trip.

LIGHTING APPLIANCES

When lighting your LPG appliances for the first time, or after refueling the LPG tank, trapped air will need to be purged from the system which could take a few seconds or a few minutes, depending on the distance of the appliance from the tank. Follow the appliance manufacturer's lighting and operating instructions found in the Owner's Information Kit. Be sure that the water heater has water in it prior to igniting.

EXIT LOCATIONS



Every sleeping area in your recreational vehicle is provided with exits. These exits are either in the form of an exit window (which will be labeled EXIT in red letters) or the main entry door, which is not labeled, serves as an exit. The exit window handles will also be red in color. Lift the handles and push the window open to exit. Make sure all occupants are aware of the exit locations and their operation.

Chapter 5 - Plumbing Systems

Your motorhome is self contained, able to carry fresh water in the potable storage tank and hold the wastewater in dual holding tanks for dumping when convenient. Water connections are also available for a city water hose hookup to an external pressurized water source.

The fresh water storage tank supplies potable water to all fixtures within your motorhome by means of a 12-Volt Weer pump. This pump is located close to the storage tank and is equipped with a check valve that ensures directional flow away from the tank. The pump has an on/off switch, which is located on the monitor panel. The pump will automatically build up pressure and maintain that pressure when turned on. The pump should be turned off when the fresh water tank is empty or when the motorhome will not be in use. Continued operation with a dry tank may damage the pump. Your pump has a filter on the inlet side. This filter should be cleaned after each tankful of water for the first few uses. To remove the cover press in firmly and twist counterclockwise about one eighth turn. Pull the screen out of the bowl and rinse clean. Reassemble in the reverse fashion. For more information check your water pump owner's manual located in your Owners information Kit.

The fresh water tank can be filled by an external hose through the potable water fill located outside your unit. To fill, make sure that the tank and low point drains are closed. Simply connect the extend hose directly to the receptacle labeled "Potable Water" on the outside of your motorhome. Turn on the external water source and the tank will fill up. Check the monitor panel while filling the tank to determine how full the tank is. When full, water may spill back out through the inlet or vent. There is no automatic shut-off for the fresh water tank fill. When completely filling the tank to maximum water capacity, fill all water lines and the water heater as well. When possible, traveling with an empty fresh water tank will provide for more cargo carrying capacity and better gas mileage.

If you choose to use city water directly for your water source, simply attach the external hose to the inlet labeled "City Water" located in the termination compartment of your motorhome. Now you have a pressurized water supply from the motorhome park or city water supply hookup. The same water lines are utilized as with the fresh water storage tank and pump, however, the pump's check valve bypasses both the pump and the fresh water tank. Turn on the water supply and open faucets to purge any air trapped in the water system.

AcAunon

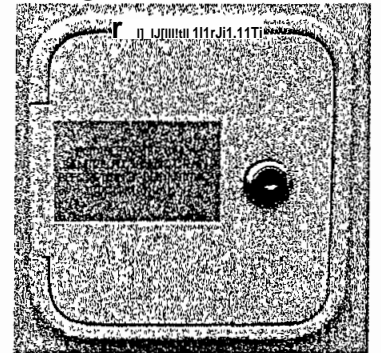
Some water sources develop high water pressure, particularly in mountainous regions. These campgrounds or hookup locations may not have regulated water pressure, which could be considered excessive. High pressure is anything over 55 psi. Excessive pressure may cause leaks or damage to your water system. Water pressure regulators are available to protect the water system against high pressures. Check with your dealer for recommendations of water pressure regulators.

FRESH WATER SYSTEM

FILTER/WATER PUMP



FRESH WATER FILL



CITY WATER HOOK-UP

intruder Water Inlet



Daybreak
Challenger
Connection

Chapter 5 - Plumbing Systems

Low POINT DRAINS



SANITIZING THE SYSTEM

Low point drains are located either in the holding tank compartment or in the rear storage compartment on the driver's side of the coach. These drains are used when the system is to be completely cleared of water.

You should sanitize and disinfect the fresh water system upon delivery of the unit and at least once per year or whenever the motorhome is unused for prolonged periods of time. This will help keep your water system fresh and discourage the growth of viral and bacterial contamination, which may be contained in your water supply. Use a chlorine and fresh water rinse as follows:

1. Drain the fresh water tank by opening the drain valve. All of the faucets should be in the closed or off position.
2. Prepare a solution of 1/4 cup household liquid chlorine bleach (5% sodium hypochlorite) to one gallon of water for every 15 gallons of tank capacity. Do not pour bleach straight into tank. Bleach must be diluted in water prior to filling.

Example: Add 4 - 2/3 gallons solution to a 70 gallon tank
Add 5 - 1/3 gallons solution to a 80 gallon tank
Add 6 gallons of solution to a 90 gallon tank
Add 6 - 2/3 gallons solution to a 100 gallon tank.

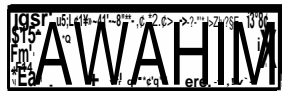
This mixture puts a 50 PPM (parts per million) residual chlorine concentration in the motorhome's water tank. This will act as quick-kill dosage for some harmful bacteria, viruses, and slime-forming organisms. Concentrations higher than 50 PPM may damage water lines and/or tank.

3. Close all faucets and drains, and fill the fresh water tank with the rinse solution through the potable water fill.
4. Turn on the pump switch and circulate the rinse solution throughout the entire system.
5. Once the rinse solution has been circulated through the entire system, fill the fresh water tank until it is full.
6. Close all faucets and drains and let the system sit for approximately three (3) hours.

Drain the entire system.

Flush the complete system with fresh water until chlorine odor disappears.

Finally, close all drains and fill the fresh water tank as you normally would. Make sure the water heater has water in it prior to igniting.



Chlorine is poisonous. Recap bottle and clean any appliances used with soap and water.

WASTE WATER SYSTEM

The waste water system is comprised of dual holding tanks with individual termination valves. The holding (solid waste) tank as indicated on your monitor panel, collects all the waste material from the toilet. The gray water tank collects all of the liquid waste material from the sinks, drains, and showers. Both tanks are joined together after the termination valve to provide a single termination outlet for convenient dumping of waste materials. A flexible sewer hose is required to make the

connection between your unit's termination valve and the approved dump station inlet.

The drainage system is very similar to that of your home. The system is trapped and vented to prevent waste gases from entering your motorhome. The drain piping is made of ABS material and is resistant to most chemicals. The "P" traps at the sinks, showers and tubs are available for use as clean-outs if necessary.

Your vehicle's holding tank compartments are heated by the furnace duct world. It will heat the tanks when the furnace is in operation.

As mentioned previously, your holding tanks terminate together at one location for convenience in dumping your tanks. A twist-on cap is located at the terminal outlet to help prevent leakage of materials.

CAUTION

The holding tanks be enclosed sewer systems, and must be gained into an approved dump station. Tanks should be thoroughly drained and rinsed to prevent any accumulation on the intake of the tanks.

1. Twist off the termination cap counterclockwise. Some liquid may be trapped between the valves.
2. Connect the sewer hose by turning it clockwise, making sure that the connection end levers are locked over the termination end.
3. Deposit the other end of the sewer hose into an approved dump station inlet.
4. Open the black termination valve first and drain.
5. Open the gray (smaller) tank valve to drain and flush out the hose.
6. Rinse the tanks and hose thoroughly with fresh water before disconnecting.
7. Close the termination valves.
8. Rinse the sewer hose with the faucet provided in the termination compartment.
9. Replace the sewer hose to its storage location.
10. Replace the termination cap on the outlet, making sure that it is secured and locked.
11. You may wish to add an approved deodorant chemical, approved for your sewer system, to aid in the breakdown of solid wastes as well as making your system more pleasant to use.

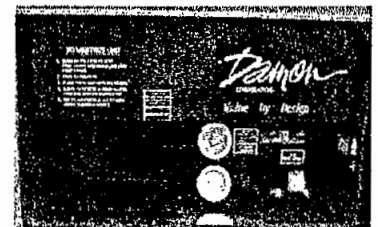
NOTICE

Do not leave the termination valves in the open position or open them prior to having the sewer hose connected. Do not remove the termination cap with the termination valves in the open position.

HEATED HOLDING TANKS

DUMPING THE HOLDING TANKS

DUMPING INSTRUCTIONS

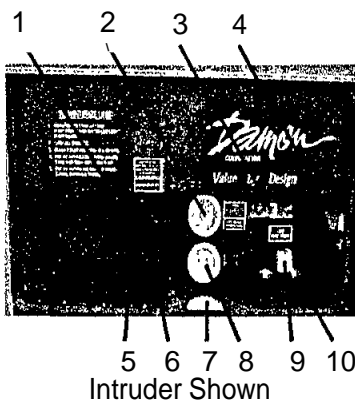


Chapter 5 - Plumbing Systems

HOW TO PREVENT BLOCKAGE OF DRAIN LINES

- The most common holding tank problem is blocking the drain lines, which can be minimized by following a few simple suggestions:
- Prior to dumping, make sure your tank is at least 1/3 full.
- Keep the tank valves closed, and the termination cap on.
- Fill and cover the bottom of the tank with water after dumping is complete and leave the water in the tank.
- Use only approved, biodegradable, toilet tissue designed specifically for motorhome systems.
- Always use plenty of water when flushing.
- Do not put facial tissue, paper, or sanitary napkins into your holding tanks.
- Do not put solid objects into the tank which could puncture or scratch your tanks.

TERMINATION COMPARTMENT FIXTURES



The termination compartment has many functions. Listed below are the fixture call outs and functions (Intruder shown):

1. Termination valve. Pull this open to release the fluids from the holding tank. Be sure the sewer hose is attached and draining into an approved waste disposal system.
2. City pressure hose attachment.
3. Exterior faucet For mixing the water temperature for the exterior shower head.
4. Compartment light.
5. Termination cap. Remove this to install the sewer hose. Be sure the termination valves are closed before removing this cap.
6. Termination valve. Pull this open to release the fluids *from the* holding tank. Be sure the sewer hose is attached and draining into an approved waste disposal system.
7. Hatch cover. Open this and pass your city pressure hose through. Close with hose passing through small opening in the cover.
8. Sewer holding tank flush attachment. Attach the city pressure hose and allow the water to flow for three to four minutes. Be sure to open the termination valves (1) and (6) and have the sewer hose attached and draining into an approved waste disposal system.
9. Exterior shower head. For washing animals, sewer hose, or any exterior cleaning job.
10. Low point drains. Use these to drain your water lines in preparation for winterization.

Chapter 6 - Technical Systems

The basic utility systems in your unit can be classified under two general titles, Electrical, and LP Gas. This section outlines these systems, describing their function, operation, and simple maintenance. This section is not intended as a service guide. Should a problem arise, we recommend that you contact your Damon dealer.

The electrical system in your motorhome is designed and built in accordance with the latest codes, standards, and regulations effective at the time of construction. It consists of two types of systems, alternating current (AC) 120-Volt service and direct current (DC) 12-Volt service. Because of the many model variations and options, it is not possible to provide wiring diagrams in this manual. We recommend that any electrical work be done by a Damon dealer or a qualified RV electrician.

The chassis electrical system is separate from the coach electrical system, except for the emergency start which may provide power from the auxiliary batteries to the chassis battery. The chassis system gets its power from the automotive battery, providing power to all of the dash controls and their functions. If any chassis electrical system should fail, first check the fuses at the circuit panel under the interior dash on the driver's side. These are automotive type fuses, which are available at many service stations. The dash fuses will be located either under the dash on the driver's side, or in the Battery Control Center (BCC) on the firewall inside the hood.



Replace fuses or bulbs only with those of equivalent size and type as marked on the fuse or bulb. Incorrect sizing will not match component circuitry causing a possible electrical hazard.

The direct current (DC) system supplies all the power to operate the 12-Volt devices in your vehicle. It is made up of four parts:

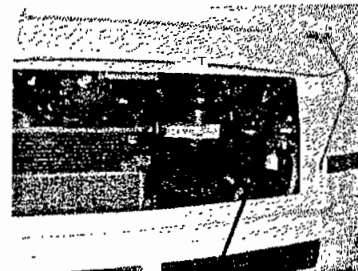
1. Auxiliary Coach Batteries
2. Chassis Battery
3. Converter/Inverter
4. Battery Control Center (BCC)

The system has been designed to provide adequate power during travel, dry camping or campground use.

When shore power is unavailable, the coach batteries power all house 12-Volt devices. The coach batteries are of the golf cart variety and are capable of being deeply discharged. *With a large reserve rating, the batteries are able to provide limited use for several days before needing to be recharged.* Because of the large power rating, the batteries must be recharged for a minimum of 24 hours to reach a full charge.

ELECTRICAL SYSTEM

CHASSIS ELECTRICAL



BCC on firewall

DIRECT CURRENT SYSTEM

COACH ELECTRICAL



Coach Batteries



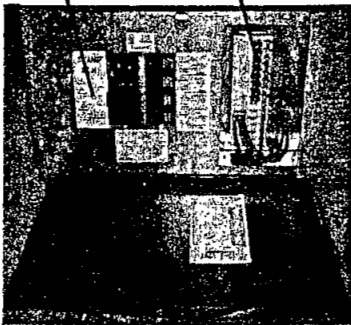
Chassis Battery

Chapter 6 - Technical Systems

CONVERTER/ INVERTER

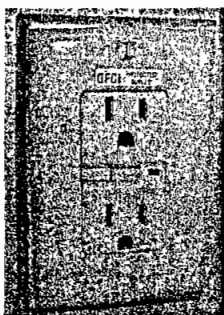
12-volt house fuses

Converter



Challenger shown

ALTERNATING CURRENT SYSTEM



Never expose batteries to open flame or electrical spark. Chemical action in the battery generates hydrogen gas which is flammable and explosive. Do not allow battery electrolyte (battery acid) to contact skin, eyes, fabric, or painted surfaces. Wear eye protection when working with batteries.

Charging of the batteries comes from one of two sources, the engine alternator or the converter. When driving, circuitry in the BCC directs charging current from the chassis electrical system to the coach battery bank. When power from either the campsite or generator is present, the converter charges the batteries while also providing power for the house circuits. The converter is an electronic device with an output rating of 75 amps DC for units equipped with 50 amp AC service, and 45 amps DC for units equipped with a 30 amp service. It is connected directly to the coach batteries through the battery disconnect in the BCC. All of the converter's output, minus the house power needs, is available to charge the batteries. Units with 50 amp AC service are equipped with a Charge Wizard to control the demand for charge directed to the batteries.

The inverter converts 12-volt power from your house batteries to 120-Volt power for your motorhome. The 400 watt inverter will power the front and rear W and the VCR.

The AC electrical system provides grounded electrical power to your 120-Volt electrical appliances through the external shoreline or your power generator. The shoreline is a one-piece molded cord that provides a weatherproof cable assembly. Included in this cord is a grounding pin. If any adapter or extension cord is used, ensure the wire is sufficiently sized for the amperage of the motorhome. Be sure the grounding pin is maintained.



Electrical output devices, extension cords and adapters must be grounded and suitable for the electrical requirements of your motorhome. Failure to provide sufficient electrical power can cause low voltage and/or damage to your appliances and motorhome.

AC receptacles are located throughout your unit for your convenience. Certain circuits are dedicated to individual appliances (e.g., air conditioners, microwave/convection oven) because of load requirements.

Your motorhome is provided with a ground fault circuit interrupter (GFCI) receptacle located in the bathroom or galley which also provides protection to all outside receptacles. The GFCI is designed to limit the time of exposure to an electrical shock caused by current leakage to the ground.

NOTICE

The GFCI should be checked once a month to assure proper operation. To test the GFCI:

1. Press the 'TEST' button.
2. The 'RESET' button will pop up. If the 'RESET' button does not pop up, a loss of ground fault protection is indicated. DO NOT USE that outlet or other outlets on the same circuit until a qualified RV electrician has checked out the electrical system.
3. To restore power, push the 'RESET' button.

NOTICE

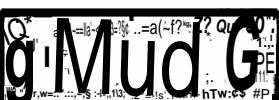
If UP? outside receptacles do not work, check the GFCI receptacle to make sure the reset button has not been tipped.

The Battery Control Center (BCC) houses all the fuses for your auxiliary coach circuits. The BCC is located in front of the driver's front tire inside the compartment of the fender skin. To remove the BCC cover, locate the tabs on each side of the box, pull away slightly and remove. Inside you will find a series of fuses for the extra circuits not available on the automotive or interior house 12 volt fuse boards. These style fuses are available at any automotive or RV store. If it should become necessary to replace any of these fuses, be sure to replace them with the same style and amperage rating. The circuit wiring is sized for that particular amperage. The BCC will sense when to charge either set of batteries. If the voltage falls below the minimum requirements, the BCC will switch the charge to that set of batteries. Terminals inside the BCC are available for testing its functionality. This testing should be performed by a qualified RV technician.

If your motorhome is equipped with a generator it will provide independent AC power. When the generator is in operation, an automatic switch will change the AC appliances to generator power from the previous AC source. A short delay occurs before the switching process is complete to allow the generator to stabilize its output. The generator is mounted to allow for easy access during service functions. Refer to the generator owner's manual for necessary service requirements and operating instructions.

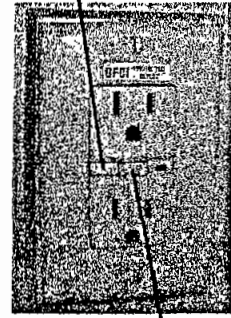


EXHAUST GASES ARE DEADLY. Do not block the tail pipe or situate the vehicle in a place where the exhaust gases have any possibility of accumulating either outside, underneath, or inside your vehicle or any other nearby vehicles. Outside air movements can carry exhaust gases inside the vehicle through windows or other openings remote from the exhaust outlet. Operate the generator engine only when safe dispersion of exhaust gases can be assured, and monitor outside conditions to be sure that exhaust gases continue to be dispersed safely.



Do not under any circumstances operate the generator engine while sleeping.

Test



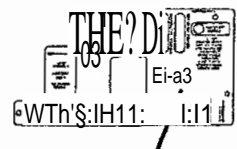
Rasa

BATTERY CONTROL CENTER (BCC)



Daybreak

Intruder



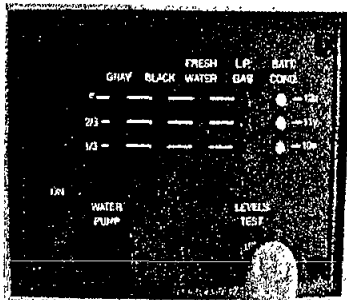
Artwork inside BCC gives fuse size and usage

GENERATOR



Chapter 6 - Technical Systems

MONITOR PANEL



The monitor panel allows you a convenient check of the approximate levels of all systems at the touch of a button. It is located in the hallway and includes:

The water pump switch

The level test button for

- LP gas tank
- fresh water tank
- holding tank 1 (black/toilet **waste** water)
- holding tank 2 (gray/sink and shower waste water)

Push and hold the button until the panel registers a reading.

The levels are registered as:

F (full)

2/3 full

1/3 full

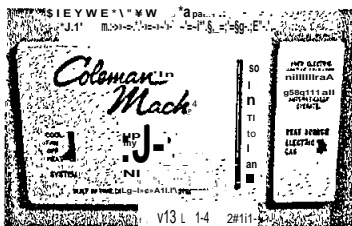
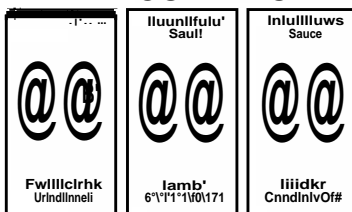
NOTICE

The monitor panel gives its readings of the water and **waste** tanks by means of an electric signal between the tank probes. If there is an extremely low mineral content in the water, or if there is buildup or coating on the sensor probes on the interior of the tank(s), the readings on the monitor panel may be incorrect.

NOTICE

Avoid pouring grease, oils, or similar substances down your drain or the toilet. If this should occur, the holding tanks may need to be washed out with soap and water. Inaccurate monitor panel readings could occur.

ROOFAIR CONDITIONER



Most models are equipped with two roof mount Dr conditioners. If your motorhome is equipped with a 50 amp AC service, both air conditioners can be operated on either generator power or by an external power source. If the vehicle is equipped with 30 amp AC service, the Dr conditioners can be operated simultaneously with generator power only. Operations selections can be made with the dual switch marked "Air Conditioner Selector Switch." Use this diagram to determine which setting to use for your particular needs. (30 amp AC only)

Your motorhome may be equipped with an electric heat pump. Using this for heat will reduce your furnace LP consumption. To use the heat pump set the thermostat to your preference and move the heat source switch to 'ELECTRIC'. This will use the heat pump every time the thermostat calls for heat. If the temperature inside the motorhome is 45 degrees or less, the gas furnace will automatically operate.

This vehicle is designed with a liquefied petroleum system to provide a safe and reliable fuel source for your range, furnace, water heater, and refrigerator. As with any flammable and volatile material, proper handling and precautions should be exercised at all times. The following warnings must be reviewed and adhered to for safe and trouble free operation.



LP gas containers should not be placed or stored inside the vehicle. LP gas containers are equipped with safety devices that relieve excessive pressure by discharging gas into the atmosphere.



It is not safe to use cooking appliances for comfort heating. Cooking appliances need fresh air for safe operation. Before operation:

- Open overhead vent or turn on exhaust fan, and
- Open window.

A warning label has been located in the cooking area to remind the user to provide an adequate supply of fresh air for combustion. Use proper ventilation when using the cooking appliances to avoid the dangers of asphyxiation.



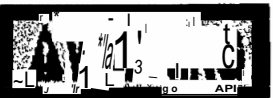
Do not fill containers to more than 80 percent of capacity. Over filling the LP gas container can result in uncontrolled gas flow, which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume as liquid LP gas.



Portable fuel burning equipment, including wood, charcoal grills, and propane stoves, should not be used inside the motorhome. The use of this equipment inside the vehicle may cause fires and/or asphyxiation.



Do not bring or store LP gas containers, gasoline, or other flammable liquids inside the vehicle because fire or explosion may result.



LP gas has a distinctive odor. If you are unaware of the nature of an odor contact a Damon dealer. If you smell LP gas:

- Extinguish any open flames, pilot lights, and all smoking materials.
- Do not touch any electrical switches.
- Shut off the gas supply at the tank valve or gas supply connection.
- Open doors and windows.
- Leave the area until the odor clears.
- Have the gas system checked immediately by a certified RV technician.

The LP gas tank is mounted to the chassis below the floor and behind a lower compartment door of your motorhome. The tank needn't be removed, as it is accessible for tilting by opening the lower compartment door. The tank and fittings have been completely assembled, however; upon initial tilting, all connections should be checked for leakage by a certified RV technician.

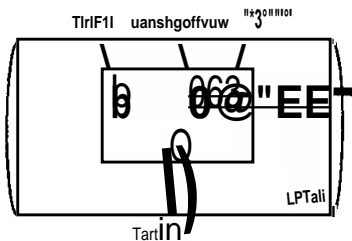
LIQUEFIED PETROLEUM GAS SYSTEM

LP GAS TANK



Chapter 6 - Technical Systems

LP GAS REGULATOR



The LP gas is stored in the tank as a liquid under pressure and vaporizes under the control of the pressure regulator for use with all of the LP appliances. The LP gas in the tank is much colder than the Dr that surrounds the tank, but as the air temperature drops closer to Me temperature of the liquid in the tank, the liquid doesn't vaporize as easily. Consequently, the BTU value of the LP drops dramatically. The closer the tank is to full during cold temperatures, the better the BTU value will be, however, do not fill the tank to more than 80 percent of capacity.

Freezing of the LP gas system is a potential problem during cold temperatures because of moisture in the LP gas or supply system. Precautions should be taken to keep your tank and system free of moisture. Check with your LP service station about approved antifreeze or deicers, which may be available to reduce the possibility of a freeze.

The tank has a gauge installed to show the level of LP in the tank. The tank level can be remotely read from the monitor panel. The monitor panel is usually located in the hallway.

The LP gas tank has a regulator installed adjacent to the main shut-off valve. The regulator controls the pressure to the appliances-as required for proper operaljon. This regulator has been preset by the regulator manufacturer and should not be adjusted unless necessary, and then only by a qualified LPG service technician.

The regulator has a vent to permit it to breath, allowing the diaphragm to move up and down, and also allowing a release for excess pressure which may build up. This vent must be facing downward and should be checked periodically to make sure that it is clean and free from obstructions. Clogging from corrosion, dirt, insects and other debris is the most common cause of regulator malfunction.



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

Chapter 7 - Interior Systems

Driving a motorhome is very similar to driving a car. You have an ignition switch, gearshift lever, turn signals, and dash components. As you sit in the driver's seat (Challenger shown) the center of the cluster includes tachometer, speedometer, fuel gauge, oil gauge, temperature gauge, and amp meter. Switches may have symbols to describe their function. See pages 35 and 36 for more detailed information on the function of each switch. Switch locations may be different from model to model.

The radio can be played without turning the ignition on but the battery disconnect must be in the 'use' position. The heater and dash controls operate by turning the controls to the desired setting just as in your car. The cruise controls are either on the turn signal lever, or on the steering wheel pad. You can set, resume, and disengage the cruise control from this location.

The gear selector is located on the right side of the steering wheel. Some models have an overdrive switch on the end. Press this button to engage/disengage the overdrive function. Pull the lever toward you to place into the desired gear. Be sure the service brake is applied when making this selection. See the chassis owner's manual for more information.

Your motorhome will perform best on a certain octane level. Be sure to reference your chassis manual and use the specified octane for maximum performance.

Refer to your chassis manual for the proper fuel specifications.

AcALmou

Below are descriptions of the various controls on your dashboard. Please keep in mind that these controls may be located in different positions depending on the model of your particular vehicle..

ICC - Courtesy Flasher (DOT-Lights): Flash after a semi-truck passes you or as a thank-you flasher when you are passing.

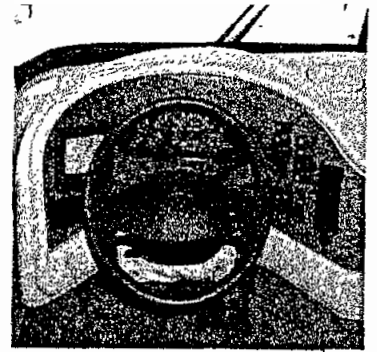
FOG LIGHTS/DRIVING LIGHTS: Are offered to provide more visibility. Fog lights will function with low beams, Driving lights will function with high beams.

SERVICE-LIGHTS: Provide under the hood lighting.

aisle LIGHTS: Provide lighting in the aisle of the motorhome.

AIR HORN: Operates the electric air horns.

AUTOMOTIVE DASH

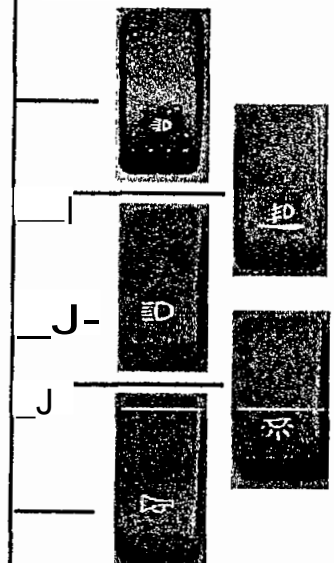


GEAR SELECTOR

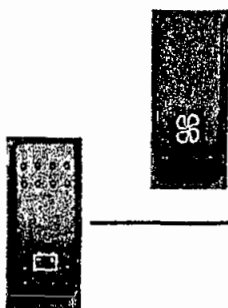


FUEL sELEction

DASH BOARD CONTROLS



Chapter 7 • Interior Systems



DASH FANS: Provide air flow in the cockpit area. They can be of assistance to the defroster system during cold temperatures, or circulate -cool Dr from your air conditioner during hot weather. This is a two speed switch for low and high speed operation.

AUXILIARY START SYSTEM: Permits using the auxiliary battery power to aid in starting the motorhome engine if the vehicle battery has become discharged. When the ignition key is turned to the start position and one or more clicking sounds are heard, it may be necessary to use the auxiliary start system as follows:

NOTICE

Always set the parking brake prior to using the auxiliary start system.

- 1 Press and hold the "AUX START" switch located on the dash.
- 2 Turn the key and start the engine in the normal manner
- 3 Release the "AUX START" switch and operate motorhome in a normal manner

WARNING

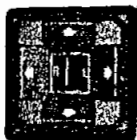
Do not hold the ignition key in the start position for more than 30 seconds. Be careful not to run down the auxiliary RV battery as this could leave you without any 12-Volt power.



GENERATOR START/IE A switch on the dash, in the bedroom or on the generator allows remote starting or shutdown of your power generator. When the generator is running, a light on the dash switch will be illuminated. An hour meter shows the total amount of time the generator has been in operation.



HEADLIGHTS: Operates like the one in your automobile. The first position turns on the parking lights. The full on position turns on the headlights. Rotating the knob controls the brightness of the dash lights. (Set this according to your preference.)



REMOTE MIRRORS: This switch allows you to set the viewing angle of your mirrors from the convenience of the driver's seat. To adjust the driver's side mirror, move the lever to the left. For the passenger's side, move the lever to the right and adjust as needed.



HEATED MIRRORS: Use this switch to defrost your mirrors.



WIPERS: This is a switch for HIGH, LOW or intermittent operation.

WASHER: This switch located on the wiper switch provides washer fluid to the windshield. Check the washer fluid level prior to trips. Some washer fluid can freeze, so be aware of the temperature conditions where you will be traveling in order to add the proper type of fluid to your washer reservoir.

The tilt steering wheel can be moved to allow additional room for entering and exiting the driver's seat, as well as for selected driving positions. Operate the tilt mechanism by lifting the smaller lever on the left side of the steering column just below the directional signal lever. Move the steering wheel to the desired position and release the lever to secure.



Never attempt to adjust the steering wheel while the vehicle is in motion. Loss of vehicle control could result.

Some Workhorse models will be equipped with front urethane air bags. These are located inside the front coil springs. Refer to your chassis manual for proper inflation pressures.



The motorhome should never be driven without air in the air bags. Severe damage and injury could result.

The monitor for the back up camera is located in or on the dash. It will turn on when the gear selector is placed in reverse, or when you engage its power button. It will allow you to see behind your vehicle as you back up or park. The camera is located on the rear cap of the peach.

The climate controls in your motorhome are similar to the controls in many cars. You can adjust the fan speed, cool/warm Dr mixture, and climate settings, with the turn of a knob. Your climate control console includes settings for maximum A/C, normal A/C, vent, liquor heat, a mixture of floor and dash heat, and defrost. Setting controls to maximum A/C circulates and cools interior air. Setting controls to normal A/C conditions outdoor air. This chassis climate control is not intended to heat or cool the entire motorhome.



The automotive A/C places an additional load on the vehicle's cooling system. If the engine runs abnormally hot, shut off the A/C until it cools down.

The parking brake is engaged when the shift selector is placed into the 'P' position and the yellow parking brake knob is pulled. To release, press in on the yellow parking brake knob.



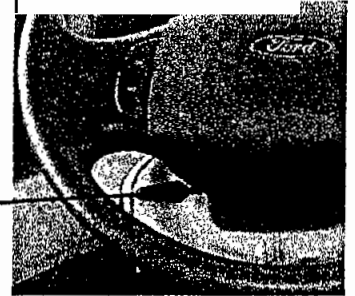
Be sure the service brakes be engaged whenever applying or releasing the parking brakes.

When lit, the indicator light shows that the leveling system is engaged. The leveling system should be retracted before attempting to move your motorhome. If the leveling system has been retracted and the light is still on, visually check to make sure that the jack legs are retracted properly. See the manufacturer's leveling procedure in the Owners Information Kit.



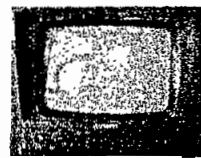
The application of the parking brake is required before operating your leveling jacks.

STEERING WHEEL

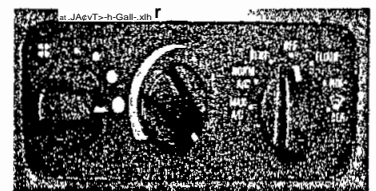


AIR BAG SUSPENSION

BACKUP MONITOR



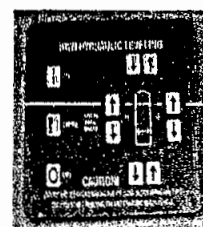
EATING COOLING CONTROLS



PARKING BRAKES

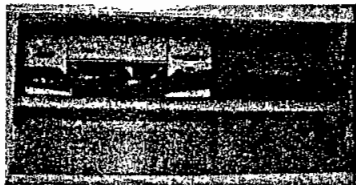


LEVELING SYSTEM

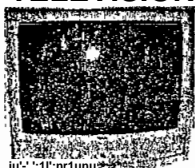


Shapter 7 - Interior Systems

STORAGE ABOVE COCKPIT



FRONT TELEVISION



LIVING AREA INTERIOR STORAGE AREAS

Above the dash is a storage compartment for the VCR, Video Center CD Changer and Digital Broadcast System. The V antenna hookup with power booster switch is located here. The light is illuminated when the booster is on. The 120-Volt outlet for the 7v is also located here. The video center will allow you to switch the signal from the antenna/VCR to the front or rear television sets.

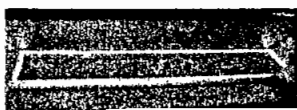
The front television will only operate when the vehicle ignition switch is turned off. Once the engine ignition switch is on, the television will automatically shut off. This is a safety requirement of many states.

Interior doors and drawers have travel latches to keep them closed while you are in transit. To open drawers lift slightly to clear the catch, then pull open.

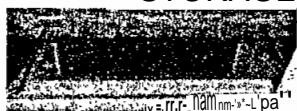
When storing articles:

- Always keep tools and equipment stored in areas where they will not shift while traveling.
- Whenever possible, place heavy articles in storage compartments which are low and near the axles for better weight distribution. Pack articles carefully in the storage compartments to minimize shifting. If necessary, use straps to prevent movement.
- Be sure liquid containers are capped and cannot tip or spill. Secure all glass containers and dishes before traveling.

ENTRY STORAGE AND STEP COVER



UNDER B56 STORAGE

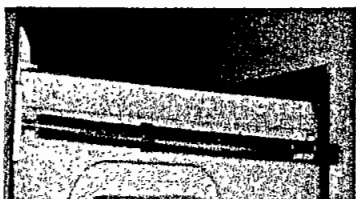


Storage is available under the first entry step on some models. It can be latched for suety.

Additional storage is accessible directly beneath the bed. Simply unlatch and lift the foot of the bed. The device is equipped with gas struts to assist with opening, holding, and closing the bed storage lid.

SLIDE-OUT OPERATION

EXTENDING THE ROOM

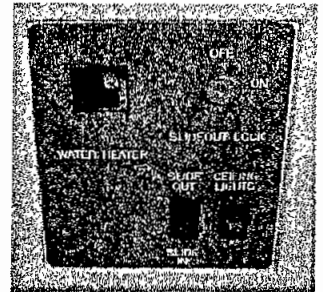


Before operating the system, verify your coach batteries are fully charged.

1.2. Before extending slide room, verify the following:

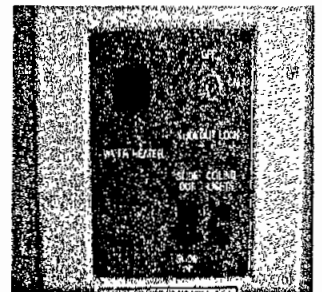
- Turn chassis ignition off. This system will not function with your key on. Level your motorhome by utilizing the hydraulic leveling jacks.
- Before extending the slide room, remove the travel locks from the slide room by rotating and removing, and move the driver's seat to the furthest forward position, and place the seat back in the vertical position.
- Verify that there are no objects (trees, electrical box, people, etc.) in the way of the slide room before extending it.

3. After the above steps have been verified locate the switch for the slide room in the bedroom or hallway of the motorhome. Turn the key to the 'ON' position. As you press the switch to the "OUT" position, the room will begin to travel outward. (As a safety feature, if you let up on the switch, the room will stop moving).
4. As this side room is designed to roll across the carpet, it may be necessary to vacuum the main floor after each extension of the room.
5. It may be necessary to relevel your motorhome after the room is extended.



1. Before operating the system, verify that your coach batteries are fully charged.
2. Before retracting the room, verify the following:
 - The driver's seat in a motorhome is in the most forward position, and the seat back is in the vertical position.
 - No debris is caught between the slide room roof and awning. Verify that any cargo inside the motorhome during the retraction mode will not restrict the slide room.
3. Turn the key to the "ON" position. Press the slide room switch to the "IN" position. (As a safety feature, if you let up on the switch, the room will stop moving).
4. Turn the key to the 'OFF' position. Insert the travel lock into the wall socket, two if provided. (The tension on the travel lock may be tightened by rotating the center portion of the travel lock clockwise, counter clockwise to loosen).
5. Retract leveling jacks before moving the motorhome.
6. Return driver seat to the driver's preferred position.

RETRACTING THE ROOM



Your slidecut requires very little maintenance. To ensure the long life of the system, read and follow these few simple procedures:

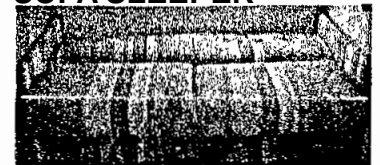


When the room is out, visually inspect the inner slide tube assemblies. Check for excess buildup of dirt or other foreign material, remove any debris that may be present

If the system squeaks or makes any noises, it is permissible to apply a thin coat of lightweight oil to the drive shaft and roller areas. Remove any excess oil so that dirt and debris cannot build up.

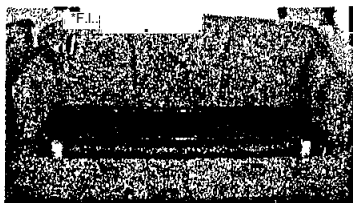
The sofa sleeper is very convenient for additional sleeping room. It is very easy to use. Simply lift up on the seat bottom and pull outward into sleeper position. To return to sofa position you lift up on front of the seat and push back into place. Some sofa models may have a latch attached.

SOFA SLEEPER



Chapter 7 - Interior Systems

HIDE-A-BED SOFA



The hide-a-bed sofa is very similar to the one that you would find in a home. To open into a bed, pull off all cushions, pull the handle located on the top of mattress up and out. The bed will pull out to reach a full bed size, so check to make sure there is adequate room before opening the bed. Use the bed as you would a normal bed. To replace the bed back to a sofa position, reverse the procedure and push the bed both in and away from the front of the sofa.

SLIDING BEDROOM DOOR AND LATCH



Some Damon bedroom doors slide conveniently out of the way beside the wall. Damon provides a vinyl travel strap or a slide latch to secure the door while the motorhome is in motion. The door latch is a bayonet type, which is engaged by turning the handle. Some models have an accordion type door which latches to the wall when closed.

DAY/NIGHT BLIND



The blinds in your motorhome are designed to serve a dual purpose. For daytime use, pull down the bottom half of the light colored shade which allows light to enter the motorhome while affording some privacy. For night use, or to shut light out and increase your privacy, pull the top, darker part of the shade down.

FURNACE THERMOSTAT



The thermostat is located on an interior wall. Use this thermostat like you would your house thermostat. The slide at the right controls your temperature while the switches on the left control the heat/cool system and the fan speed.

WATER HEATER SWITCH



The black water heater start switch is located on the wall in the galley, bathroom, or monitor panel area. The light illuminates when the switch is turned on. The light goes off when the burner is on and the water is heating. If the light comes back on, the burner is not yet lit. It may take several tries to light the water heater burner. The white 120-Volt switch is located in the bathroom. This controls the 120-Volt heating element. Turn this on to supplement the heating capacity of your water heater. Be sure the switch on the back side of the water heater is turned on. When the element is turned on the red light will glow. Be sure the tank is full of water before using.

GALLEY AREA

CABINETS



GALLEY DRAWERS



For your convenience, there is plenty of storage above and around the range area for canned goods, kitchen utensils, etc. Please ensure that the doors are closed and latched before travelling to prevent the contents from falling out.

To open the drawers, lift up and pull out. Until you get used to the operation of the drawers, you may think that they are stuck. The drawers are designed this way to ensure that they do not open inadvertently during travel.

PANTRY



Some Damon models have a wire framed pull out pantry. To extend this pantry, remove the travel lock pin at the bottom track and pull the pantry rack outward. To prepare for travel, push the pantry rack in and reinsert the travel lock pin.

The range cover provides extra counter space and covers the burners when not in use. When opened, it acts as a grease and splash guard. To raise the range cover, lift and push back until it snaps into place. To return the cover to its counter flush position, lift straight up to disengage the holding mechanism, and return it to the original position. The range has a piezo lighter. To operate, turn the burner valve on, then turn the piezo lighter. At that point, the pilot light will remain on for the oven until it is manually turned off. The oven is not self cleaning, and will need routine cleansing. Please do not store anything in your oven, and do not cook while the vehicle is in motion. For further instructions, please refer to the range instruction manual in your Owner's Information Kit.

The refrigerator in your motorhome runs on either LP gas or electric power. The controls are at the top of the unit. If you use the auto mode on your refrigerator, the refrigerator will operate on 120-Volt power when available, and automatically switch to LP when shoreline is removed. You can control how cold you want your refrigerator to be with the thermostat control. Your refrigerator is equipped for large capacities with plenty of storage shelves and a crisper. The refrigerator requires normal cleaning and care. Please refer to the refrigerator owner's manual in your Owner's Information Kit for more information.

The microwave operates on 120-Volt power provided by the generator or shoreline. It will de-program when the power is discontinued and must be reprogrammed when power is restored. For usage instructions, please refer to the microwave owner's manual in your owner's information kit.

The kitchen sink is much like the one in your home. It comes equipped with a sink cover board which, when in place, increases counter space. Only waste water should be disposed of down the drain. Never put grease, food, or other obstructions down the drain because you may plug the holding tank.

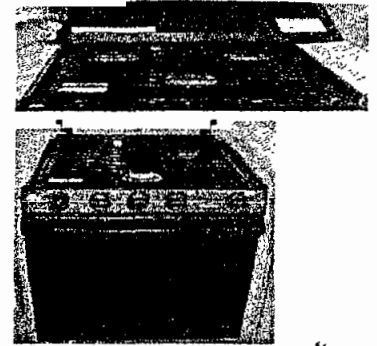
The swivel faucet has hot and cold knobs so you can mix water. If you are not hooked up to a pressurized water system at the city water fill, you must turn the water pump switch on. You can find the water pump switch on a bathroom wall or on the monitor panel in the hall. The water pump is a demand pump, so it will only operate when a faucet is opened to release the pressure.

To convert the dinette table into a bed:

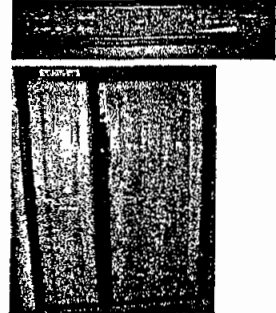
- Raise the table several inches to disengage pins from the table supports, and set table top aside.
- Raise leg posts from base mounts and lay legs down on the floor.
- Lower table top into position on table rests on face of the dinette seat to complete bed base.
- Slide seat and back cushion into place over bed base. Have your dealer instruct you in the proper operation of the type of dinette bench in your unit.

The under-seat storage may be reached by rising the cushion frame on some models, through the door at the end of the seat.

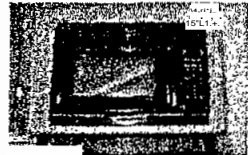
RANGE



REFRIGERATOR



MICROWAVE



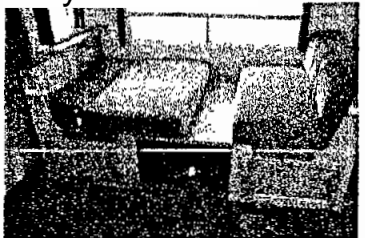
s*ink



FAUCET

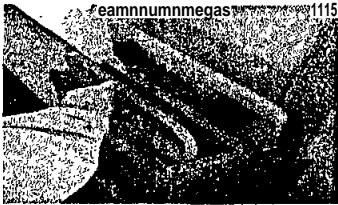


DINETTE BENCH conversion



Chapter 7 - Interior Systems

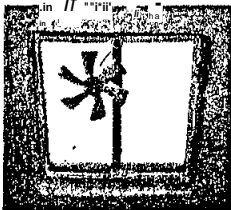
PULL-UP TABLE



Lift the hinged cup holder section to expose the hidden table. Grasp the table and pull it up until it stops. Lay the table into position. Reverse the above procedure to store the table.

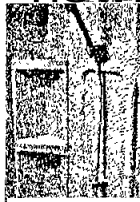
BATHROOM

BATH VENT



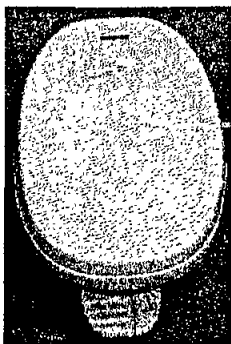
There is a power roof vent in the bathroom ceiling for use during shower and hot water use. By opening the vent and turning the fan on, hot moist air will escape, reducing condensation in the motorhome. It is extremely important that you use the fans and vent every time you use the shower or Mb to eliminate excess condensation.

SHOWER HEAD AND HOSE



The shower hose has a bracket that keeps the shower head from dropping and contaminating the fresh water system. It also has a vacuum breaker to prevent the head from siphoning water back into the fresh water system. The shower operates just like the shower at your home with two knobs that control the mix and flow of water, and a center valve to divert water into the shower head. A stopper is provided so that you can fill the tub.

TOILET



The toilet in your motorhome is a marine type toilet. It can be flushed by depressing the foot pedal in the lower front corner of the toilet, or by using the flush valve on the back of the bowl. Slide the gray lever to the right or press on the right foot pedal to refill with water. Make sure that you use only biodegradable toilet paper. Also use plenty of water to flush to prevent backups or blockages in the system.

Chapter 8 - Exterior Systems

The driver's door is keyed separately from the entrance door. There is a step bracket mounted below the door and a grab handle beside the door to assist you in entering the vehicle. Do not hang on to the door for assistance in entering the vehicle.

When locking and unlocking the main door, there is a deadbolt and a latch bolt which are keyed separately. Unlock both, pull the latch open, and pull out on the door handle. The main entry door is a two piece door. You can use the screen door separately from the main door by unlatching it. Slide the screen handle cover closed to keep insects out of your motorhome. If the door needs adjustment, see a Damon dealer for service.

Adjacent to each entry door is an entry assist handle for convenience and safety in entering and exiting your unit.

The electric step is automatic. When the ignition switch is activated, the step will automatically retract. When the door is opened, the step will extend automatically even if the engine is running. If the switch for the step is in the 'off' position, the step will fail to operate automatically. If the step malfunctions, check the battery voltage, fuses, switch alignment, and verify that the step switch is in the 'on' position.

Damon motorhomes have two different types of compartment latches. Most models have a pocket latch. To open, simply insert your fingers under the flap and pull up. The door will continue to raise on the gas assisted struts until fully open. Push down to close the compartment, and the latch will close automatically. Daybreak models have different latches. To open, twist the latch. The doors under the slide-out and doors that are mounted below gas fired appliances with exhaust have a prop rod so the exhaust does not damage the door. Most models have pass-through compartments for storing longer items. Always keep the doors locked when traveling to prevent accidental opening or theft

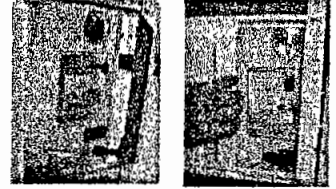
Damon motorhomes have plywood reinforced roofs which are strong enough to walk on. Use the two piece ladder to climb up on the roof for inspecting the roofing see and components. Remember to store and secure the lower section before traveling. Take the ladder into consideration when backing up or parking your motorhome.

Your motorhome may be equipped with a side awning. These awnings may be electric with an operating switch on the key fob. The operating switch is in the passengers area. To extend a manual awning you first have to loosen the round knob and lever at the bottom of the side rails. Using the provided awning rod, unlatch the lever at the top right side of the awning. Using the same awning rod, pull on the loop in the center of the awning. To retract, have the rod in the loop and release the lever at the top right side. Be careful, the awning is under spring

QR.IVE\$S DOOR



MAIN ENTRANCE



ENTRY ASSIST HANDLE



ELECTRIC STEP



COMPARTMENT DOORS



Intruder Challenger



Daybreak

REAR LADDER



AWNING



unlatch



loosen

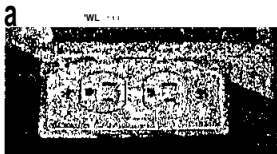
Chapter 8 - Exterior Systems



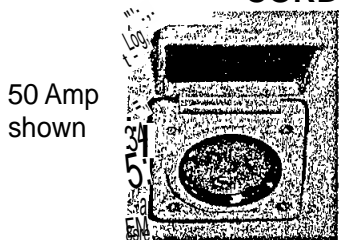
CABLE HOOKUP AND PHONE JACKS



120-VOLT OUTLET



120-VOLT POWER CORD



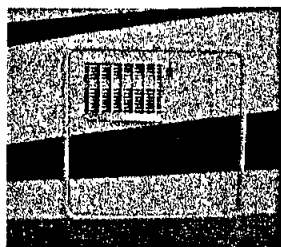
GENERATOR COMPARTMENT



FURNACE DOOR



WATER HEATER DOOR



pressure and will start to retract immediately. The awning is a convenient way to extend your campsite to include a patio within your location. When using the awning, always set one side lower than the other to allow for water runoff. For complete instructions on the use of your awning, please refer to the instructional guide in your Owner's information Kit. When used properly, your awning provides a comfortable atmosphere during your camping excursions.

Many RV parks have cable television and telephone jack connections available. This will enable you to watch cable television in either the bedroom or the living area by utilizing the video selector box in the dash overhead. It will also allow you to access a telephone jack hookup. Simply plug in the VV cable or telephone cord into the outside cable and telephone receptacle.

Plug in 120 Volt AC devices here. The kitchen, bathroom, and outside receptacles are protected by a ground fault current interrupter. If the appliance does not operate, check the circuit breaker located in the 120 Volt breaker box. (see p. 30)

The 120 Volt *power* cord is stored in one of the rear compartments on the driver's side of the motorhome. If a 50 Amp, connect the coach end (large yellow) of the cord into the receptacle on the side wall of the motorhome. Turn the locking collar to hold into place. Plug the shore end (black end) into a suitable 50 amp power receptacle to provide external power to the motorhome and converter/charging system. If 30 a Amp, some compartments have a port at the rear of the compartment box. Open the door and slide the cord plug through the port. Plug this into a suitable 30 **Amp power** receptacle to provide external power.

The door opens the same as any other lower compartment door. You can start/stop the generator from outside the unit by pushing the start button in and holding it until you hear the generator start/stop. Refer to the generator owner's manual for operating and maintenance information.

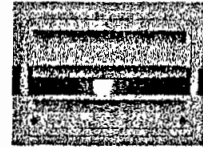
Damon furnaces have electronic ignition, and there is no need to access this panel except for service. As with all appliances, service is best left for your dealer. To remove the panel to check for insect nests, you will need a Square or a Phillip's head screwdriver. For further information, reference the furnace manufacturer's manual provided with your vehicle.

You can gain access to the water heater control panel to check for insect nests by turning the tab at the top and allowing the door to hinge down. Due to the electronic ignition, it is no longer necessary to access this compartment for lighting the pilot. It has an electronic module board, electronic ignition lighter, and a safety pop-off valve to relieve the pressure, should it be necessary.

The refrigerator is an electronic ignition appliance and there is no need to access this panel except for service or checking for insect nests. If a problem is encountered, follow the guidelines for use as outlined in the refrigerator owners manual located in the Owner's information Kit. If the problem is not resolved, contact an authorized Damon dealer.

The fuse block is located under the drivers side of the dash. Some will require you to grasp the two vertical handles, squeeze and pull to remove the cover. These fuses control the automotive ignition and dash systems. To check the fuse, pull straight out and remove from the fuse block. The fuse can then be checked either visually or with an electrical tester.

REFRIGERATOR PANEL



FUSE BLOCK



Chapter 2 - Exterior Systems

Chapter 9 - Care and Maintenance

GENERAL INFORMATION

Periodic maintenance and cleaning of your recreational vehicle is necessary to retain the dependability, safety, and appearance that will provide You with many miles of trouble free operation, as well as protecting your investment

Make sure you read and follow all the maintenance tips and schedules that appear not only in this manual, but also in the manuals provided by the chassis manufacturer and various component manufacturers. Keep **good** records of maintenance functions performed, and make sure you perform all owner obligations as may be required by the chassis manufacturer to keep your warranty in force.

It is also important to note that operating conditions will affect service timetables. Driving in extreme conditions such as heavy dust, continuous short trips, or start and stop heavy traffic means that service durations will be shortened. Discuss service timetables with both your dealer and chassis service representative. Preventative maintenance will pay for itself many times over by catching or preventing problems before they occur. Many repair costs are greatly increased due to the fact that a small problem can begin to affect other parts and systems of the motorhome if left unattended.

If a situation arises involving maintenance or cleaning activity for which you are not sure of the proper procedure, do not hesitate to contact your dealer or chassis service representative for information.

The main motorhome battery is a 12 Volt automotive battery, which provides power for all vehicle requirements. Have this battery serviced when servicing other vehicle systems.

Auxiliary batteries (house batteries) for motorhomes are dual auxiliary 6 Volt batteries to provide living area power requirements. Have these batteries serviced when servicing other vehicle systems.

When operating properly, the motorhome iterator will be able to handle normal vehicle driving requirements and also recharge the batteries in a reasonable time when on the road.

- Every 30 days check battery mounting. Tighten battery cables and clean terminals if necessary.
- Check and recharge as necessary. Keep connections clean and covered with a light coat of grease.
- Check the water level weekly and add distilled water if necessary.

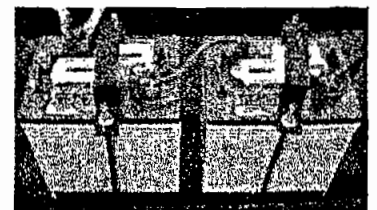
NOTICE

Vehicles left in storage for extended periods of time require further provisions to maintain a proper state of charge of the vehicle batteries. Parasitic loads (drains) from the radio, clock, powertrain control module, courtesy lights or other accessories will decharge a battery. If the vehicle is not used for an extended period of time. A discharged battery can actually freeze in temperatures of 0 degrees C (32 degrees F) resulting in permanent damage to the battery. Batteries may also be permanently damaged if allowed to stand for long periods of time in a state of discharge.

BATTERIES



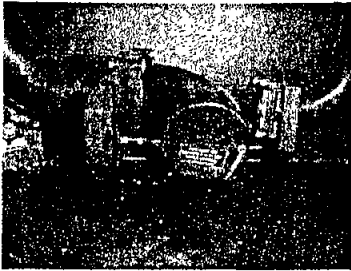
Chassis Battery



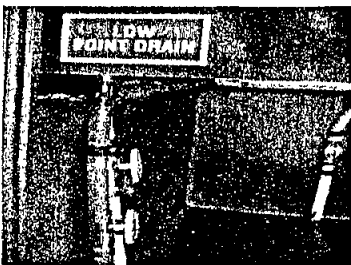
Auxiliary Battery

Chapter 9 - Care and Maintenance

WASTE WATER SYSTEM



FRESH WATER SYSTEM



ELECTRICAL SYSTEM

GENERATOR POWER PLANT SYSTEM

To alleviate battery discharge, during periods of storage of two weeks or less, disconnect the battery by pressing the battery disconnect switch located by the *entry steps to the store* mode. For extended periods of time the battery should be disconnected by removing the negative cable from the battery.

A disconnected battery may also self-discharge, especially in high ambient temperatures, therefore every disconnected battery should be checked periodically and recharged if necessary.

The drainage system, including the tanks and associated drain piping should be periodically inspected for loose fittings from vibrations. Any deterioration of the sealant around joints and fittings should be repaired immediately.

Check the operation of the termination valves. If they pull or close with effort, lubricate the shaft and slide valve with spray silicone. Termination valves that leak should be repaired or replaced as soon as possible.

Sometimes, a buildup of paper or other material in the inside groove of the termination valve can obstruct the valve and cause it to seat improperly. If you suspect that this is occurring, the valve can be removed from the drainage line by removing the four screws that hold it in place and sliding it out. The valve groove may then be cleaned out with a screwdriver or similar tool. Replace the valve in the line and reinstall the screws to secure it in place.

It is recommended that fresh water not be left in the storage tank for long periods of time. The water should be drained when the unit is being stored or not in use. Drains are located in a variety of compartments. To drain the tank and lines, simply open the low point drains and allow water to run out. After water has drained, close the valves to prevent pests from entering the system. See also 'Sanitizing the System' in Chapter 5 - 'Plumbing Systems' (p. 26) for more information. Check all hoses, fittings, and connections regularly for leaks and signs of wear. Make sure to keep the system sanitized, and take care to winterize during cold weather. Do not allow water to remain in the plumbing system for extended periods of time or after a trip.

The electrical system requires minimal maintenance under normal circumstances. **Most** electrical maintenance in the recreational vehicle involves the chassis and auxiliary batteries. Keeping the batteries properly maintained will help to eliminate many frustrating electrical problems.

The generator is another area in which simple preventive maintenance can head off problems before they happen. Read the manual supplied with the generator in the Owners Information Kit for the care and maintenance required on a regular basis.

If you experience electrical problems with your recreational vehicle, make sure to have it checked by an *authorized Damon dealer or a qualified RV technician*.

Generator power plant service, recommended by the generator manufacturer, should be performed at an authorized service center. Routine or emergency service, such as adding oil, changing filters, or replacing spark plugs, could be accomplished at an auto service center, but must be done in accordance with the service instructions specified by the generator manufacturer. Refer to the generator owner's manual for further information.

The LP gas system should be checked regularly for leaks and road damage. Follow the lines, looking for kinks or flattened spots that may have occurred during travel or maintenance on the recreational vehicle. A qualified LP gas service technician using proper equipment should check the entire system annually or whenever you suspect a problem.

The line pressure for LP gas appliances should be checked at least every six months. Most LP gas suppliers have this equipment to do the test for you.

CAUTION

All service procedures should be performed only by a certified LP gas service technician.

Some components of the recreational vehicle are constructed of strong, lightweight ABS plastic. Sometimes, it may be necessary to remove stains, or generally clean. A mild solution of soap and water will clean many stains, and should be used initially. Tougher stains may require stronger cleaners, but be sure to read the label to determine if the product is recommended for use on plastics. Avoid abrasive cleansers (*even the liquid and cream types*), *alcohol based products, and solvents* such as acetone and MEK. Gasoline and kerosene should not be used because of the damaging effect they have on the plastic surface, as well as the fire hazard they present. Often the damage caused by solvents, alcohol, and oil based products may not be immediately noticeable, but the plastic is made weaker, and thus more prone to stress cracking.

The front suspension and steering system of this vehicle was factory aligned using highly accurate equipment prior to delivery to the dealership. However we recommend that alignment be checked and if necessary, adjusted after you have fully loaded the motorhome according to your personal needs. Thereafter, the alignment should be inspected annually to help prevent uneven tire wear. All alignments and incurred costs are the responsibility of the retail owner.

Check that the top and bottom bracket screws are tight at the start of each camping season.

1. Lubricate the rafter arms and support arms using paraffin wax or silicone spray. Also lubricate the threads on the knobs.
2. Periodically clean the awning fabric as follows: For a vinyl material use a mixture of 1/4 cup of dish soap and 1/4 cup of bleach mixed with 5 gallons of warm water.

LP GAS SYSTEM

* 4

ABS PLASTIC PARTS

MOTORHOME ALIGNMENT

EXTERIOR

AWNING

Chapter 9 - Care and Maintenance

Liberally apply this mixture on the top of the fabric, then roll the awning up for 5 minutes. This will apply the mixture to the bottom as well. Roll the awning back out and hose off with fresh water. Repeat if necessary. Allow to dry before rolling back up. Avoid the Use of caustic household cleaners, mildew removers or hard bristle brushes. Do not scrub!

For an acrylic material, periodically hose off the fabric with water then let dry completely before rolling it back up. The acrylic material is water repellent, not water proof. The fabric is pretreated with a water retardant finish. Mildew cannot form on the fabric, but rather will form on dirt or dust on the fabric. The key is to keep the fabric clean. Do not scrub!

Whenever the awning is wet while rolled up, as soon as conditions *allow*, roll it out, hose it off and let it dry completely before rolling it back up again.

If you get water streaking or seeping behind the awning rail, inspect the rail for loose screws or peeled sealant. Always make sure the awning is extended high enough before opening the entry door.

Lower one end of the awning for proper water run off and to avoid water pooling and possible damage to the awning.

Refer to your awning users guide for complete instructions on the care and maintenance of your awning.

AOAUHON

Failure to lower one side of the awning could result in damage to the awning fabric and/or **hadwae** due to the weight of **water** pooling.

MOTORHOME CHASSIS

Refer to your Chassis operator's Manual for information on chassis service recommendations.

Have the engine coolant and engine oil level checked each time when refueling.

NOTICE

Proper engine servicing and record of servicing may be mandatory to ensure chassis warranty protection. Follow the manufacturer's instructions on periodic maintenance checks.

DOORS AND DOOR LOCKS

Moving parts of the entrance door and lock should be adjusted and lubricated at least once a year or as needed depending on use. Screws and fasteners should be checked and tightened periodically. Check weather-stripping seals to assure proper fit and seal. Refer to the owners manual from the door manufacturer for more in-depth instructions for care and maintenance of the entrance door.

EXTERIOR LIGHTS

Make sure to check the operation of all exterior lights often. Check headlights, clearance, turn signal, brake, and backup lights to make sure they are working correctly. Remember to check any towed vehicle or trailer lights also. Replace burned out bulbs as soon as possible.

FIBERGLASS EXTERIOR

The care of fiberglass siding is essentially the same as any automotive finish. Take care to avoid spraying water directly into any vents when washing the motorhome. It is important to note that any finish will deteriorate with time. Dulling, fading and

yellowing will be increased by exposure to extreme sunlight, air pollutants, and excessive moisture. Motorhomes located in warmer weather climates are more prone to this type of premature fading. Surface weathering of fiberglass does not change the strength of the fiberglass. Regular washing and waxing of exterior surfaces is the best insurance against surface deterioration. If deterioration has occurred, check with your dealer for the steps required to restore the finish. Buffing or even painting may be necessary in extreme cases. Small cracks known as gel coat crazing are a common characteristic of the gel coat finish (not warrantable defects).

Wax fiberglass surfaces at least once a year with a standard liquid or nonabrasive paste wax. Make sure to follow the directions for use as outlined by the product manufacturer. Make sure to wash and wax your unit out of the hot sun when the exterior surfaces are cool.

Clean and wax all trim extrusions when waxing the recreational vehicle sidewalls, to help avoid surface pitting. Special aluminum cleaners are available to restore the original luster to aluminum surfaces. Make sure to follow the instructions for use as outlined on the product package.

Storage of the recreational vehicle out of direct sun is also a primary way to help preserve fiberglass finishes.

Physical damage to fiberglass should be taken care of immediately to avoid moisture from entering through breaks or cracks, causing problems with interior walls and components. Cover breaks in the fiberglass with plastic, sealing the edges with tape until the proper repairs can be made.

DO:

Wash your RV with liquid detergents.

Wax the sidewalls using nonabrasive automotive waxes or cleaner/polishes developed for use on fiberglass boats, showers, and tubs. Follow the directions on the package.

DON'T:

Use abrasive cleaners.

Use rubbing compounds.

Dry wipe surface, clean only with water and liquid detergent.

Proper care and maintenance of vinyl graphics or paint is critical in maintaining its appearance. The following cleaning and maintenance recommendations should be followed to ensure the maximum appearance and performance of your vehicle's custom designed finish:

WAX

* 1

GRAPHICS

Chapter 9 Care and Maintenance

SIDEWALLS

When washing, flush the surface with water to loosen large particles of dirt and grime.

Fill a bucket with warm water (not to exceed 120 degrees) and use a mild detergent or a liquid car wash mixture. Follow manufacturer instructions on the container.

Using a clean soft cloth or sponge and the liquid car wash mixture, wipe the entire surface, using horizontal motions until it is clean. Rinse off the detergent with clean water starting from the top and rinse downward until it is clean.

Dry your vehicle with a clean soft cloth or let the vehicle air dry.

When waxing, ALWAYS use an automotive grade nonabrasive wax and cleaner. Use EXTREME care when waxing your vehicle and ALWAYS rub in horizontal motions.

DONOT use a pressure washer

It is strongly recommended that you DO NOT use a rotating brush car wash as it can lift the ends of your vinyl graphic or scratch your paint finish.

DO NOT use alcohol, strong solvents, bug remover, or tar remover on your painted or vinyl surface as it may leave a foggy appearance in that area

Minimize any fuel contact with your paint finish or vinyl graphics. Prolonged contact can damage the finish.

Power buffers ARE NOT recommended.



Do not use petroleum solvents, harsh abrasives, or citric based products.

ROOF

Inspect the roof components at least twice a year to make sure that all the seals are not cracked or worn. Proper maintenance of seals is necessary to keep moisture from entering and causing severe damage such as rot, mold, or mildew. If you encounter drying, cracked, or weathered seals, make sure to reseal as necessary. Remove the old worn seals first before reapplying the new seals. Check with your dealer for the type of caulking required for rubber roofs and the correct methods of resealing. Silicones and synthetic sealers cannot be used on the rubber roofs. Special sealers are also required for the skylights. Your Damon dealer may perform the periodic roof seals for you if desired.

It is especially important to check the seals before and after periods of extended storage or nonuse. Fall and spring inspections are recommended. Check the membrane for possible damage and check all accessories and fasteners. The roof may be cut or punctured by sharp objects so care must be taken when parking and driving. If damage does occur, the roof may be patched. Check with your dealer for additional information. Parking in areas where fruit or tree sap may stay on the roof for extended periods of time may result in unremovable stains.

For Normal Cleaning:

- Use a mild laundry detergent.
- Rinse the complete roof with clean water to remove any loose dirt or debris.

- Use a medium nylon bristle brush along with your selected cleanser mixed with water and scrub the entire roof. Rinse thoroughly with clean water to avoid residue buildup on the roof or sidewall of the unit
- For more difficult stains contact your Damon dealer for the correct heavy duty cleansers. Do not use general-purpose cleaners containing petroleum solvents, harsh abrasives, or citric based cleaners.

If your roof should somehow be punctured, cover the puncture to seal out moisture, and have it repaired as soon as possible (check with your dealer).

The membranes used on the roof may have an extended warranty that is covered by the membrane manufacturer. This is for manufacturing defects only and does not include leaks or punctures due to improper sealing, normal wear and tear, or owner damage. See membrane manufacturer's warranty for details.

Check roof vents regularly for debris that may block air flow or jam the cranking mechanism. Lubricate the cranking mechanism with light oil.

ROOF VENTS

It is important to maintain the seals and adhesives of your recreational vehicle to prevent moisture from entering and destroying the components. When washing your recreational vehicle, inspect the seals for signs of drying out, cracking and wear. You should inspect and reseal, if necessary, every six months.

Check seals around doors, windows, vents and external seams. If a seal is cracked or dried out, it should be replaced to prevent leakage.

Check roof seals every six months to see if they are cracked or peeling.

Check engine covers and firewall every 6 months to see if they are cracked or peeled.

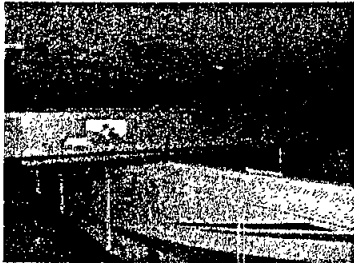
Be aware that weather, sun, and road vibration will affect seals, causing them to dry, crack, or separate. If you are unsure what to look for, have your dealer instruct you, and also show you the correct method for renewing the seals. If you prefer they will be able to perform seal maintenance for your convenience.

The exterior of your motorhome is made of pre-finished aluminum and fiberglass. Wash it frequently with a mild soap and soft rag in lukewarm water. If you travel roads that have been salted for ice, wash your motorhome as soon as possible. The most common causes of corrosion are accumulation of road salt, dirt, and moisture in hard to reach areas under the motorhome. Make sure you wash the undercarriage and wheel wells as well as the exterior of the motorhome. A good automotive cleaner should be used occasionally to remove tree sap, road tar, insects and industrial pollution that may damage surfaces. Do not use naphtha or turpentine. We recommend that you wash your motorhome about every three weeks.

SEALS AND ADHESIVES

Chapter 9 - Care and Maintenance

SLIDE-OUT



Your motorhome may be equipped with a slide-out room for added space and comfort. Proper care and maintenance is required to achieve the maximum performance. Follow the guidelines listed below for your slide-out.

It may be necessary to lubricate the slide assembly (rollers, slide tubes, lever assembly) once a month with light oil to prevent rust buildup. This may be required more frequently due to road spray (salt, sand, dirt, etc.)

If you pay your unit for long periods of time, run the room in and out 2-3 times to keep the moving parts lubricated and the seals moving more freely.

Keep the slide room away from tree branches. Visually inspect the room and awning before retracting. Branches rubbing against the room while retracting could cause damage to the seals.

Whenever possible, wipe down the exterior walls before retracting the room to prevent water from draining onto the carpet.

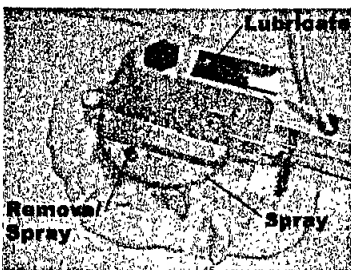
The rollers under the slide room are not sealed rollers, therefore, some residue may appear on your carpet. This is a normal function, so be aware and take proper precautions. Vacuum the carpet after each extension of the slide out room.

Verify that your house batteries are fully charged before operating the room.

TIRES

In areas where the hot sun constantly beats down on the motorhome, shading the tires by covering can reduce tire sidewall cracks from forming. Tire covers can be purchased at any motorhome supply store. Check your chassis owners manual for the tire rotation requirements. Due to the weight of the motorhome you should have a qualified service center rotate the tires if necessary.

WANTENNA

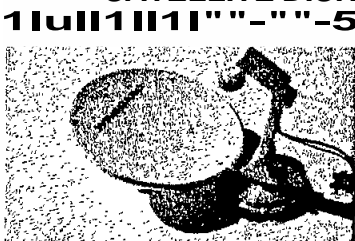


To lubricate the elevating gear, apply a liberal amount of silicone spray lubricant to the elevating gear with the lift in the down position. Run the lift up and down a few times to distribute the lubricant over the gears.

If rotating the antenna becomes difficult, lubricating the bearing surface between the rotating gear housing and the base plate can restore operation. Any spray type silicone lubricant may be used.

Elevate the antenna and remove the set screw from the rotating gear housing. Spray lubricant into the hole and around the edges of the gear housing. Rotate the gear housing until the lubricant coats the bearing surfaces and the antenna rotates freely. Replace set screw.

SATELLITE DISH



Some motorhomes have a satellite dish. Elevate the dish and spray all hinge areas with a silicone spray. Rotate the dish and spray the base plate with a silicone spray. Continue until the elevation and rotation is free of resistance. Wash the dish surface and LNBC with a mild soap and water solution.

Buildup of mud under the body can cause rust, and can add unnecessary weight, which contributes to the gross weight of the vehicle. This effectively reduces the amount of cargo you can still carry and remain within your GVWR and GAWR limits.

Check the condition of the frame regularly. Keep it clean, and repaint as necessary to help avoid rust. Corrosive materials such as those used for ice and snow removal accumulate on the underside of the motorhome. These materials should be removed by flushing the underbody regularly with water especially in areas where mud and other foreign materials collect.

Make sure that all windows remain operative by adjusting and lubricating latches and moving parts annually. Use powdered graphite or light oil to lubricate moving parts on windows.

Vinyl seals around windows should be checked every six months, cleaned regularly and kept pliable by use of a silicone spray (make sure to follow the directions of the product).

Keep screens and window slides clean and free of debris to maintain proper operation and to avoid component damage. Test the operation of all windows occasionally to make sure they are working properly, making sure that they close flush and that the locks hold tight.

Check with your dealer if you are unsure about the correct methods of lubrication and adjustment.

NOTICE

Be aware that moisture can accumulate in locks and hinges of windows and doors, causing damage or faulty operation. Do not force the operation of these components in subfreezing weather.

Be sure to remove all food and ice from the refrigerator at the end of each trip. Prop the doors open slightly to keep the interior dry and free of mold, mildew, and odors.

Make sure to read all literature provided with each of the appliances and follow the maintenance instructions included. Pay particular attention to any cautions or warnings included.

Clean your tub/shower, sinks, and toilets as you would at home. A nonabrasive cleaner is recommended. When cleaning mirrors or shower doors, a vinegar and water solution works very well to remove hard water spots and stains.

Preserve the luster by cleaning with a damp cloth and any household detergent designed for that purpose. To remove most stains, hard water deposits, cigarette burns and minor scratches use an abrasive cleanser or an abrasive pad such as 3M ScotchBrite brand green "Kitchen Scrub" pads. To remove deep stains and scratches use fine sandpaper (120 - 220 grit), then sand using (in the following order) 320, 400, and 600 grit sandpaper to restore the standard finish. A satin sheen or high polish can be obtained with polishing compounds.

UNDERBODY

WINDOWS

INTERIOR

APPLIANCES

BATH FIXTURES

SOLID SURFACE COUNTERTOPS

Chapter 9 - Care and Maintenance

COUNTER TOPS WITH HIGH-PRESSURE LAMINATES

Certain chemical substances can seriously mar surfaces even during brief periods of contact. If spilling occurs, wipe area off immediately, and then rinse with water. Potentially harmful compositions include: Toilet bowl cleaners, rust removers, contact adhesive solvent, ceramic cook top cleaners, paint or varnish removers, drain cleaners, metal cleaners, tile cleaners, lacquer thinners, or oven cleaners. Contact the manufacturer should you need further assistance.

High-pressure laminate counter tops are quite easy to keep clean. Waxing is not necessary. Glass rings, food spills, water spots and smudges usually wipe off with a damp cloth or sponge. Stubborn stains can be removed with a spray cleaner. Laminated surfaces resist alcohol, fruit acids, cosmetics and most household chemicals. It is better to avoid contact with dyes, strong laundry bleaches and bluing solutions. Indelible inks used on food packages may leave a stain so take care when unpacking groceries on a damp countertop.

Sharp knives can damage the finish so confine slicing to a good cutting board. The counter top resists moderate heat and boiling water. Pots and pans straight from the oven or broiler should be placed on hot pads. Keep irons on an ironing board and lighted cigarettes in an ashtray. For lasting beauty, avoid using harsh abrasives, scouring powders, peroxides or bleaches. These can dull surfaces, making the counter top more likely to accept stains.

BATHTUB SEAL

Inspect every 90 days and reseal as necessary. Use a clear silicone sealant

BEDSPREAD AND DRAPERIES

We recommend dry cleaning for your bedspread and draperies just as you would for your draperies and comforters at home. Although this is more expensive, proper care of material will help ensure a longer life. Care of headboard and bedroom valance fabric should be done with same instructions given for upholstery fabrics. Laundering and improper cleaning may result in fabric shrinking, fading or deteriorating prematurely. Read the label on the bedspread for proper cleaning.

BRASS FIXTURES

To clean, wipe with a soft damp cloth. Warm water will remove dry water spots. Do not use cleansers which contain abrasive or harsh chemicals. Never use alcohol or other organic solvents.

CO DETECTOR

Test the detector operation after vehicle has been in storage, before each trip, and at least once a week during use. Push the test button until a short beep (about 2 seconds) is heard. Release the button. The detector then resumes normal operation. In normal operation, the detector will flash the red LED once every thirty seconds.

Professional cleaning is recommended for major cleaning. Frequent vacuuming is recommended to remove daily accumulations.

Wipe clean as you would for dolly cleaning. Use a nonabrasive cleaner to avoid damaging the finish.

Keep your blinds looking new by wiping with a soft cloth. Vacuum shades regularly. Use a mild detergent to spot clean if necessary. Close the blinds and shades all the way to properly clean inside and out.

Clean with hot soapy water or a good liquid cleaner. Avoid using abrasive cleaners. Never use steel wool on stainless steel, since the steel particles left in the sink can rust and become unsightly. Also, when cleaning stainless steel with a mild cleanser, rub gently with the grain, and rinse well. Rinse after each use and wipe dry.

Your RV is a small living area so soiling may occur more frequently and items will need more attention than your furniture at home. Please follow these guidelines for cleaning your upholstered fabrics.

- Do not use water based cleaners.
- If a spill does occur blot up the spot, but do not rub it in. Some solvents are not recommended since they may have an adverse reaction on specific backings of your upholstery fabric.
- To prevent overall soiling, vacuuming or light brushing to remove dust and grime is recommended.
- Spot clean, using a mild water-free solvent or dry cleaning product.
- Clean only in a well-ventilated area and avoid any product containing carbon tetrachloride or other toxic materials.
- Pretest a small area before proceeding.
- Use a professional furniture cleaning service for an overall cleaning.

Your upholstery fabrics have been manufactured with the same quality you would expect to find in a furniture store. However, they are not completely resistant to possible damage. Special care is needed when your motorhome is exposed to very humid, or very hot climates or if it is closed up for an extended period of time. If you know you are going to be away, cover upholstery and make sure window coverings are closed to protect upholstery from any sun damage.

Your decorative wall coverings are not much different from wallpaper that you may have in your home. They should be cleaned with mild soap and water. They can easily be maintained with proper care.

CARPET

HARDWARE

MINI BLINDS & DAY/ NIGHT SHADES

SINKS

UPHOLSTERY AND FABRICS

WALL COVERINGS

Chapter 9 - Care and Maintenance

WINDOWS	Any glass will develop water spots if glass is not cleaned properly. This spotting effect is magnified when glass has a reflective finish. Use a squeegee immediately after washing.*to reduce water spotting. To remove stubborn water stains from reflective glass; there are several aftermarket specialty glass cleaners. The inside window track must be kept free of debris to keep the drain holes clear.
WOOD CABINETRY	These products should be cared for as you would any line piece of wood furniture. Apply a furniture polish when you clean to maintain the natural beauty and luster of wood. This will keep your cabinetry looking new and keep wood from drying out. Murphy's Oil Soap is a good choice for wood cabinets.
WOOD PLANK FLOOR	Protect floor from dents, scratches and nicks by installing protective pads on the legs of chairs and tables. We suggest 100% olefin because dirt is absorbed into the pad. Ordinary felt pads hold dirt on surfaces and become abrasive, like sandpaper. Use area rugs by the entrance doors to trap dirt. Sweep or vacuum the floor often and wipe up spills as soon as possible. Clean with a hardwood floor cleaner designed for that purpose. Do <i>not</i> use wax, dishwashing detergents, abrasive chemicals or oil based cleaners on wood floors. Waxes, oil soap, vinegar; ammonia, silicone or solvent based polish will make the floor harder to clean because of residual deposits.
VINYL CABINETRY	Use a clean damp cloth to clean surfaces. Avoid using abrasive cleansers as they may scratch the finish.

Chapter 10 - Winter Use and Storage

Many people choose to use their motorhomes throughout the entire year. Extensive usage is not recommended in severe cold weather. However, winter traveling can be safe for you and your motorhome if you follow the precautions outlined in this chapter. For those who choose to use their motorhomes only during the warmer months, winter storage is necessary. This section will guide you through the proper steps to winterize your motorhome, which is critical to maintain maximum durability over the life of your vehicle.

The fresh water storage tank is located inside a lower storage compartment. The furnace will heat the fresh and waste water compartments. In severe cold however, it is wise to monitor the water temperature in the tank, and take appropriate steps to drain and winterize if necessary. In severe cold weather, it may also be necessary to open the lower cabinet doors at night in both the bath and kitchen areas to keep warmer air circulating around the water fixtures.

If you are going to leave the coach unheated for any length of time in severe cold conditions, it is best not to keep water in the fresh water system. It may work best to carry cooking and drinking water with you in plastic jugs instead.

If you will be using your motorhome when conditions fall below the freezing level, it may be necessary to protect the drainage system components from damage by the addition of an approved antifreeze solution as outlined on the product directions. Any drain lines exposed to external air temperatures are especially susceptible to freezing and precautions should be taken to protect them from damage.

In the event that the motorhome is left for a period of time without the furnace in operation, canned goods and other foods packed in water should be stored as high as possible, since heat rises. They might also be stored in the refrigerator as insulation against the cold. Store dry foods, and other items that are not damaged by freezing temperatures in the lower storage areas.

Make sure to use an LP gas that will vaporize properly in the colder temperatures. Check with your LP gas representative for the proper fuel.

Use only the furnace to heat the recreational vehicle. It is properly vented to the outside.



Never use the range for heating as carbon monoxide may build up inside the unit and asphyxiation could result.

Cooking produces large amounts of moisture, not just as steam from pots and pans, but also as a product of combustion. Make sure to use the exhaust vents and open a window slightly to control the humidity. At night, leave a roof vent and/or a window slightly open.

TIPS FOR WINTER USE

WATER SYSTEMS

H

FOOD STORAGE

LP GAS SYSTEM

HEATING

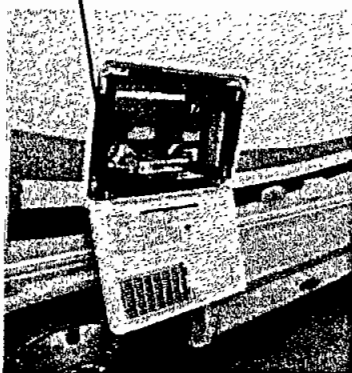
CONDENSATION

WINTERIZATION PROCEDURES

When a motorhome is exposed to freezing temperatures, it could be severely damaged by ice expansion. This is especially true of the water lines, water pumps, water heaters, washer/dryer holding tanks, and faucets, which are at risk for damage if not properly drained during the winter. All water must be drained from the motorhome. The procedure to do so is as follows:

- ☐ Drain the fresh water tank by opening the low point drain valve. Let the water drain out until the tank is empty.
- ☐ Drain the black (waste) water tank and the gray (sink) water tanks and flush out completely (See complete instructions located in Chapter 5 - "Plumbing Systems"). Drain the black tank first and allow the gray water tank to rinse out the flexible hose drain line. You may now add a commercial holding tank chemical cleaner. Driving the unit around for a few miles will allow the cleaners to circulate within the tanks and drains. Drain and flush once more with fresh water.
- ☐ After all the tanks have been drained, make sure that any water remaining in the lines is either blown out, or replaced with a nontoxic RV antifreeze solution which *will prevent any water that remains from freezing*. To blow out the water lines, proceed as follows:
 - Open all faucets including the toilet flushing device and the shower head sprayer. Open any other water lines that are closed. You will need access to an air compressor along with an adapter that will connect the air to your unit. These adapters can be purchased at an RV supply store. Do not exceed 55 psi when hooked up to the water lines to avoid damage. If your vehicle is equipped with a water filter remove and drain it before proceeding. Replace it with a diverter tube, which will come with the unit. This will create a bypass in the water lines so that the antifreeze will not go into the filter assembly.
 - Turn on the water pump and allow it to run to clear all water from lines. Turn off the water pump.
 - Open all low point and water tank drains.
 - Open the water heater cover and remove the water heater drain plug located on the lower front side of the water heater (see photo).
 - Hook an air hose to the city water connection located in the termination compartment. Blow out the water lines until no more water can be seen coming out of the lines. Pause for several seconds and repeat until clear.
- ☐ Put nontoxic RV antifreeze in the drains, p-traps, and water tanks.
- ☐ If you do not have access to an air compressor, you may use the "wet" method of winterization.
 - After you have completely drained all the tanks, water heater and lines by opening the low point drains and switching the water heater bypass valves to the bypass position (if equipped-see page 61), close the low point, water tank and the water heater drains.

water heater drain plug



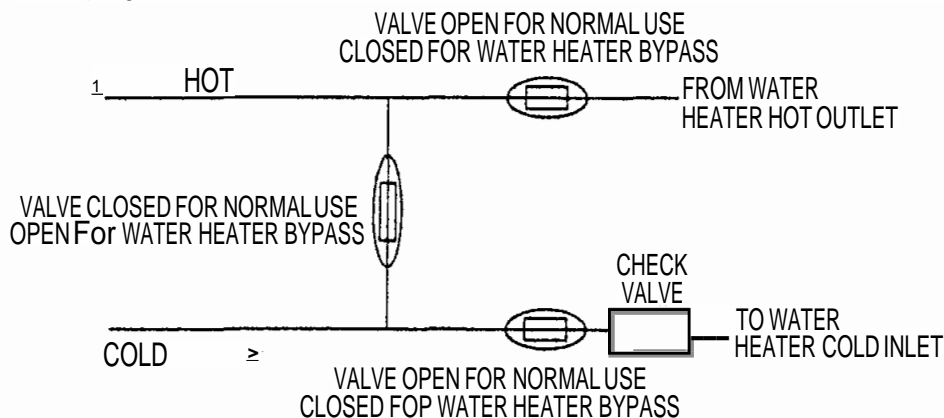
- Pour 4-6 gallons of RV antifreeze into the fresh water tank and let the water pump circulate the mixture. Do not dilute
- Open the furthest faucet or water valve from the pump and work your way through the entire system. Turn on one (hot and cold) at a time until the antifreeze solution is observed, then close the valve. Allow at least 2 cups to pass through for complete protection. Make sure to include all water lines such as showers and tubs, toilet, washing machines, dishwashers, ice makers and outside shower faucets. The antifreeze should be left in the sink, washer and shower p-traps and toilets during storage to protect those lines. Open all faucets one half way to relieve pressure on the valve seats during storage. Wipe all fixtures clean to prevent staining.



Antifreeze must be nontoxic in nature and must be flushed from the fresh water system before human use. Automotive antifreeze is poisonous and **SHOULD NOT** be used in drinking water systems.

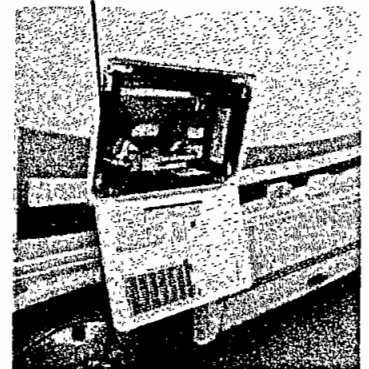
Draining the tanks and water lines in your motorhome is half the battle of winterization. Complete the Storage and Winterization Checklist (P. 62) to ensure protection of your motorhome. An authorized Damon service dealer can help you in the winterization process for your convenience.

A water heater bypass valve system is located inside your motorhome usually behind the water heater. When the system is closed, water is shut off to the water heater. This will eliminate circulating an additional six gallons of antifreeze through the water heater system when winterizing the system. Be sure to remove the drain plug from the outside of the water heater to drain the water heater.



WATER HEATER BYPASS

water heater drain plug



STORAGE AND WINTERIZATION CHECKLIST

When storing your motorhome for the winter (or other extreme conditions), certain precautions need to be made to protect it until you open it up again for use. Make sure to talk with your local dealer concerning any special requirements for storage in your particular *area*. The following steps are general, and your dealer can help you choose those that are most appropriate for your needs.

- ☐ **Chassis** - Run engine for 30 minutes once a month if possible. Prepare as outlined in the chassis owner's manual.
- ☐ **Generator** - Prepare as outlined in the generator owner's manual.
- ☐ **Plumbing Lines** - Drain and protect by filling with approved RV antifreeze. (see page 64)
- ☐ **Water Heater** - Drain. (p. 60)
- ☐ **Toilet** - Depress pedal down and pour RV antifreeze into .
- ☐ **Fresh Water Tank** - Drain, pour RV antifreeze solution and run through the fresh water system, or use the dry method (p. 60).
- ☐ **Water Filter** - Remove and discard the filter. Install diverter tube in place of filter assembly.
- ☐ **Body** - Clean and wax. Oil locks and hinges. Seal roof trim as needed.
- ☐ **Tires** - Block up motorhome with wooden blocks or manufactured jack-stands on a hard level surface to relieve the constant pressure on one area of the tires. Partially deflate the tires. Cover to protect against sunlight with burlap, wood or specially designed tire covers which are available at RV dealerships.
- ☐ **Countertops and Cabinets** - Wash with mild soap and water.
- ☐ **Curtains and Blinds** - Close all the drapes and curtains, and protect the curtains from sun fading by placing foil or paper between the windows and the curtains/blinds.
- ☐ **Windows** - Close and lock. Inspect and reseal if necessary.
- ☐ **Holding Tanks** - Drain and rinse. Close valves. Add a small amount of RV antifreeze to keep valves and gaskets lubricated.
- ☐ **Drain Traps** - Pour a cup of RV antifreeze down all drains. Wipe all fixtures clean.
- ☐ **Refrigerator** - Clean. Leave both doors propped open. Cover exterior panels and roof vents. Leave an opened box of baking soda inside the refrigerator to prevent any musty odors from accumulating.
- ☐ **Air Conditioner** - Remove air filters and clean or replace. Cover shroud.
- ☐ **Roof** - Must be kept clear of significant snow accumulation or damage may occur. Inspect and reseal if necessary.
- ☐ **Vents** - Check all furnace, refrigerator, range hood, AC, etc. vents and close securely. Cover or tape up to prevent mice or insects from building nests that can disturb the air flow and keep the appliances from functioning properly.

- ☐ **Sinks and Showers** – Clean and then pour one cup nontoxic RV antifreeze into the drains to prevent freezing. Wipe all fixtures clean.
- ☐ **Batteries** - Add distilled water and recharge if necessary. If possible, remove batteries and store them in a cool dry place (approximately 50 – 60° F). Check them periodically and recharge as needed. Be sure that both the chassis and auxiliary (house) batteries have the proper electrolyte level and that they are fully charged. A discharged battery will freeze and may crack the case, causing severe damage to the battery and surrounding area. In storage, a battery will lose charge gradually over a 30 to 45 day period, even when disconnected by the use of the Battery Disconnect Switch. We recommend that the batteries be checked for charge at least monthly. You may wish to remove the batteries from the motorhome and store them in a heated area. However **even** when warm, the battery charge level must still be maintained. A warmer battery accepts charge much more readily than a cold one.



Keep the battery vent caps in place during storage and prohibit smoking, welding, and other work involving the use of flames in the area.

- ☐ **Fuel** – Store with the tank full to prevent condensation buildup.
- ☐ **Dash or Conditioner** – Run for a short period of time to assure the compressor seal is lubricated.
- ☐ **Interior** – Check the interior of the motorhome monthly while in storage to make sure leaks have not developed, or condensation has not formed that can cause damage to interior components. Condensation can most readily be observed as moisture accumulation on windows and mirrors. To reduce condensation, make sure to air out the motorhome occasionally during storage.



Maintenance Schedule

ITEM	PROCEDURE TO BE PERFORMED:											
	Maintenance schedules be minimum requirements. Heavy use, unusual temperatures or humidity, or other extreme conditions may require more frequent maintenance.											
Roof & Components												
Fiberglass Exterior												
Windows & Doors												
Seats & Adhesives												
LP Gas Systems												
Water Systems												
Electrical System												
Safety Equipment												
Carpet												
Front Wheel Alignment												
Seats												
Chassis & Components												
Power Step												
Weight & Distribution												
Fabrics & Upholstery												
Chassis Fluid Levels												
Tires												
Window Seals												
Bathtub/Shower Seal												
Appliances												

Service | Maintenance Record

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Fuel | Oil Record

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Fuel | Oil Record

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Notes

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Troubleshooting

Will not operate.

- ☐ Make sure unit is turned on.
- ☐ Check circuit breakers in coach.
- ☐ Have a Damon dealer check to see if there is proper voltage from shoreline or generator

Unit runs, but coil freezes and compressor cycles too soon.

- ☐ Control setting may be too low, cycles too soon.
- ☐ Make sure the filter is clean and unobstructed.
- ☐ Have the coolant level checked by a qualified service facility.

Does not go cold enough.

- ☐ Start unit before the day gets too hot
- ☐ To offset the gain:
 - Close all windows and blinds.
 - Keep entrance doors closed.
 - Use awnings.
 - Avoid using heat-producing appliances.
- ☐ Make sure the outside coil is not blocked or damaged.
- ☐ Have a Damon dealer check to make sure you have the proper voltage.
- ☐ Should your AC still not work after the above checks have been made, contact a qualified service facility to perform more extensive testing.



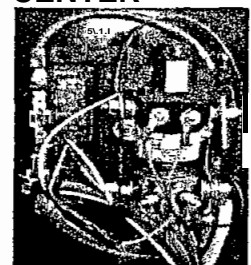
Working with electrical appliances can be extremely dangerous.

Checking the fuses.

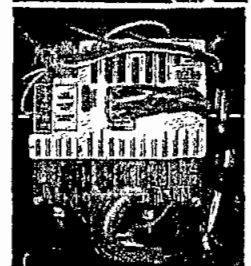
- ☐ The Battery Control Center is built in two layers, the printed circuit board and the relays. The box has been designed so that nearly all troubleshooting can be done without the removal of the printed circuit board. Have a Damon dealer remove the circuit board if necessary.
- ☐ Remove the outer cover.
- ☐ Check fuses visually or with an electrical tester.
- ☐ Check for power on both sides of the fuse.
- ☐ Replace the fuse with a new one of the same ampere.

ROOFAIR CONDITIONER

BATTERY CONTROL CENTER



Daybreak
shown



Intruder
shown

Troubleshooting

ELECTRICAL POWER

No AC power to unit

- ☐ Check circuit breakers at power center. The 120 Volt circuit breaker may be off or tripped.
- ☐ Have a dealer check that there is power to the shoreline receptacle.

ELECTRIC STEP

Electric step **does** not operate.

- ☐ Verify that step switch is in 'ON' position.
- ☐ Check battery voltage. Recharge or replace as needed.
- ☐ Check door switch alignment. Realign or repair if necessary.
- ☐ Check 25 Amp fuse in the battery control center.
- ☐ Check step frame for damage or misalignment. Replace if necessary.
- ☐ Lubricate step assembly with a lithium spray grease if necessary.

Step operates Intermittently.

- ☐ Check door switch alignment. Realign if necessary.
- ☐ Check step frame for damage or insufficient lubrication. Replace or lubricate if necessary.

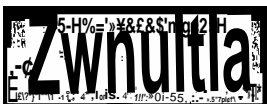
FURNACE

Furnace does not ignite and/or cycles frequently.

- ☐ Check that LP gas tank is full.
- ☐ Remove any obstruction over furnace exhaust.
- ☐ Inspect exhaust too for any obstructions.
- ☐ Check fuse in fuse panel and replace if necessary.
- ☐ Measure that return air grill is unobstructed.
- ☐ Remove anything that is stored in furnace compartment that could block air flow.
- ☐ Check that heat outlet registers are open and that register openings are unobstructed.
- ☐ Contact a Damon dealer if the problem persists.

Furnace does not Fire and fan does not run.

- ☐ Replace fuse with one of the same ampere rating.



Turn thermostat and furnace gas control valve off and contact your dealer or an authorized service center. DO NOT attempt to repair or adjust the furnace yourself.

GENERATOR

Starter engages while holding the start button down, but generator does not start.

- ☐ Generator may run out of fuel. Check the chassis fuel level. (Generator will not operate when the chassis fuel tank is less than 1/4 full).
- EI Generator may be low on oil. Check the oil level.

Nothing happens when the generator start button is pushed.

- ☐ Check that the battery disconnect switch is in the 'use' position.
- ☐ Check 12 Volt fuse on generator.
- ☐ Reset circuit breaker or if necessary
- ☐ Contact a Damon dealer or qualified RV technician if problem is not resolved.

Generator starts, but lacks electrical power.

- ☐ Breakers or switches may be off or tripped generator Reset breaker or if necessary.
- ☐ Breaker or may be off or tripped inside power center: Reset main breaker or if necessary.

Generator makes clicking sound when trying to start.

- ☐ Battery condition may be low Recharge if necessary
- ☐ Check for poor ground or battery connection.

Lights flicker.

- ☐ Loose or defective bulb. Tighten or replace as needed.
- ☐ Converter is overheating. Open the cover to cool down and reduce the load by turning off some 12 Volt lights.

Lights dim or are half bright.

- ☐ Low battery condition. Check battery condition and recharge if necessary
- ☐ Possible converter running on. Have converter checked by an authorized service center
- ☐ Possible loss of ground. Check for loose wire connection.

Jack retracts after coach is level

- ☐ Check tank reservoir for the proper fluid levels.
- ☐ Hose carjack may have an external leak
- ☐ Fluid is leaking back to reservoir through the control valve.

Jacks will not retract completely.

- ☐ Jack may be clogged with ice or mud.
- ☐ Main rod is bent or scored. Have replaced or repaired if necessary
- ☐ Valve plunger is not completely depressed by the valve handle.
- ☐ Spring is weak or broken.
- ☐ Hydraulic line is pinched.

Ignition switch is on, but no power to pump and/or control panel.

- ☐ Parking brake is not set.
- ☐ 12 Volt from power source is not available. Check the in-line fuse under the dash by the O.E.M. fuse panel

INTERIOR LIGHTS

LEVELING JACKS

Troubleshooting

- ☐ Faulty wire or electrical connection. Have checked by a qualified service technician.

Pump will not activate.

- ☐ Grounding switch on valve is not working.
- ☐ Pump relay not functioning.
- ☐ Pump not grounded.

Hydraulic pump activates without use of control valve handles.

- ☐ Grounding switch at valve may have shorted.
- ☐ Pump relay may be stuck.
- ☐ Relay control wire shorted to ground.
- ☐ Oil supply is low in reservoir.
- ☐ Store levers not in the operate position.
- ☐ Pump is not developing pressure.
- ☐ Broken hydraulic line.

Yellow leveling lights are not functioning properly.

- ☐ Yellow lights will not go out when vehicle is level. Adjust the sensing unit located under the main body floor in a center storage compartment. See your manufacturer's manual.

Red warning lights are not functioning properly.

- ☐ Light will not come on: check for broken wire at warning notch on the jack.
- ☐ Lights will not go out: faulty warning switch or wires are shorted to the ground.

LP GAS

Smell gas in or around unit.

- ☐ LP tanks may be overfilled.



Working with LP gas can be dangerous.

- ☐ Follow these instructions:
 - Extinguish any open flames, pilot lights and all smoking material.
 - Do not touch electrical switches.
 - Shut off gas supply at the tank valve or gas supply connection.
 - Open doors and other non-powered venting openings.
 - Leave the area until odors clear.
 - Have the gas system checked immediately and leakage source corrected by a Damon dealer or qualified service center before using again.

MICROWAVE OVEN

Will not operate.

- ☐ Door open or timer 'OFF.' Close door and turn timer 'ON.'

- ☐ No power to oven. Check power supply and circuit breaker.

No lights on panel when switch is pressed.

- ☐ Check battery voltage and condition.
- ☐ Check fuse in the Battery Control Center labeled BD RELAY, if fuse is good have a Damon dealer or a qualified RV technician check the condition of panel.

Holding tank lights deliver false readings (i.e., 113 or 213 indication)

- ☐ Verify tank is empty.
- ☐ Debris may be built up across probes. Clean and flush tank using four parts vinegar mixed to two parts water.

LP gas Indicator display indicates 'E' or 'F' all the time.

- ☐ Ensure LP gas tank is full.
- ☐ If display is 'F', check the wiring or sending unit for malfunction.
- ☐ Have it inspected by a certified technician.

No power to outside receptacle.

- ☐ Make sure you have power to the shoreline.
- ☐ Check breaker on generator.
- ☐ GFCI receptacle switch may be off or tripped. Reset GFCI at receptacle in bathroom or kitchen.
- ☐ Check the breaker in the power center or panel box.
- ☐ Contact a Damon dealer or a qualified RV technician if problem is not resolved.

Oven slow to heat up.

Poor baking

Poor ignition of burners.

Pilots won't stay lit.

Popping sound from top burners.

Carbon on pilot shield.

Burner flame too low or too high.

- ☐ A defective gas pressure regulator may cause these conditions. Have the regulator tested by your gas dealer or a certified RV technician.

Top burner or oven burner won't light or won't stay lit.

- ☐ Check position of top burners and flash tubing.
- ☐ Clean clogged burner ports with a toothpick
- ☐ See oven owner's manual for proper care and maintenance.

Gas smell.

- ☐ Check all connections with leak detector solution.



Never Use a match or flame to check for leaks.

MONITOR PANEL

OUTSIDE RECEPTACLE

OVEN

Troubleshooting

ACALMON

All LP connections should be checked periodically as vibrations from travel may cause them to loose.

Food burns on the bottom.

- ☐ Oven too full for proper circulation. Use smaller pans or put less food in the oven.

POWER CONVERTER

Converter makes a clicking noise

- ☐ Circuit overloaded. Reduce load on circuit by shutting off some appliances and lights.
- ☐ Contact a Damon dealer or qualified RV technician if problem persists.

POWER INVERTER

Inverter does not work.

- ☐ Be sure the batteries are properly charged. If the batteries are low, they will trip the breakers on the inverter.
- ☐ Reset the breakers on the inverter.
- ☐ The 400 watt inverter only operates the front W entertainment center and the rear W.

SLIDE-OUT ROOM

Room moves in and out very slowly, binds or squeaks.

- ☐ Grease the slide-out tubes and rollers.

Greasemarks appear on the carpet where the rollers are located.

- ☐ The rollers are not a true sealed roller, so this may happen over time. Take precautions when lubricating.

Water is getting in at the bottom corner of the room.

- ☐ Verify the exterior seals are against the room at the top corners and not turned in when room is out. Also, check for voids in the seal on the roof.

Room will not move in or out.

- ☐ Ensure ignition switch is in the 'OFF' position.
- ☐ Check the auto-resetting fuse located by the slide out motor. (See the manufacturers manual)
- ☐ Check battery condition and state of charge. Recharge if necessary.

Rollers leave tracks in the carpet as the room extends.

- ☐ This is normal. There are many pounds of weight pressing these rollers down on the carpet and rollers will compress the nap of the carpet down. Raking the nap or vacuuming will solve the problem.

When areas near water connections, pump runs while no other fresh water fixtures are being used.

- ☐ There is a possible leak.
- ☐ Close all low point water drains and tank drains.
- ☐ Turn off all fixtures.
- ☐ Check all hoses and connections for tightness. Do not overtighten fittings as this may cause additional leakage.

Pump will not start

- ☐ Check that battery disconnect switch is on.
- ☐ Check pump switch at monitor panel.
- ☐ Check fuse in power center.
- ☐ Check to see if water is frozen.

Will not prime, sputters. (No discharge but the motor runs.)

- ☐ Check to see if there is water in the tank, or if air collected in the hot water heater.
- ☐ Check for frozen water lines or water tank.

Pump will not shut off. Runs when faucets are closed.

- ☐ Turn off pump or city water supply.
- ☐ Check for damp areas around plumbing appliances.
- ☐ Check plumbing for leaks and inspect for leaky valves on toilet.
- ☐ Have pump checked by your Damon dealer or a qualified RV technician.

Refrigerator control panel and lights are not illuminated.

- ☐ Check coach circuit breakers and GFCI receptacle.
- ☐ Verify that refrigerator is plugged into the 120 Volt outlet.

Lights are illuminating, but no cooling.

- ☐ Use a proper power source that is available and cooling operation to specification.
- ☐ Make sure the refrigerator unit is level.
- ☐ Allow sufficient time for proper cool down and try to load with precooled food.
- ☐ Have a qualified RV technician check that the vents and chimney at the rear of the refrigerator are clear and unobstructed.
- ☐ Have a qualified RV technician make sure the burner jets or burners are not dirty or damaged.
- ☐ Have a qualified RV technician check the fuses in the black electrical box on the rear of the refrigerator.

WATER PUMPS

REFRIGERATOR

Troubleshooting



Extinguish all flames. Never use a match or flame to check for leaks.

Heavy frost build up on evaporator fins..

- ☐ Defrost the freezer and refrigerator.
- ☐ Have the refrigerator checked by your Damon dealer or a qualified RV technician.

COACH BATTERY

Battery boiling.

- ☐ Water low in battery. Refill water to correct level in battery using distilled water.
- ☐ Bad battery. Replace the battery with new.
- ☐ Defective converter. Have converter checked by an authorized service center

NOTICE

Continuous use of converter can cause evaporation of electrolyte in battery.

RUNNING LIGHTS

Running Lights not working.

- ☐ Blown fuse. Replace fuse with one of the same ampere rating.
- ☐ Bad bulbs. Replace the bulbs with new.

TERMINATION VALVE

Termination valve leaks.

- ☐ Debris keeps valve from seating. Clear debris from and around valve o-ring seat
- ☐ Bad gasket. Have a Damon dealer or a qualified RV technician replace gasket with new.

WANTENNA

Poor W reception

- ☐ Power jack is not turned on. Turn powerjack switch to 'ON.'
- ☐ Bad connections at W or wall plate. Make sure the connections are good at both W and wall plate.
- ☐ Antenna not pointed in direction of sending station. Point antenna in proper direction.
- ☐ Cut or torn cable. Have a Damon dealer or a qualified RV technician replace bad cable where needed at W and antenna.

Elevation handle moves, but antenna does not raise or lower.

- ☐ Handle may be loose. Tighten screws.
- ☐ Gears may be stripped. Have a Damon dealer or a qualified RV technician replace the gears.

Antenna will not rotate.

- ☐ The rotate handle is engaged to the ceiling plate. Pull down on handle to disengage from the ceiling plate.
- ☐ Possible obstruction (tree branch, etc.). Remove obstruction.
- ☐ Friction adjustment. Adjust center lock nut.
- ☐ Design of antenna limits rotation to 350°. Adjust as necessary

Poor Reception.

- ☐ Have you entered the your correct current location zip code?
- ☐ Do you have the W tuned to channel A or ? (Same channel as the output of the receiver)
- ☐ Be sure there are no trees, buildings, mounters, etc. in the line of sight to the satellite.
- ☐ Check connections at the receiver, W and antenna.
- ☐ Fine tune reception by slowly moving the antenna left, then right until you find deposition that gives the highest signal strength. **It is important that you turn the antenna slowly. The signal is digital and it takes a few seconds to lock on.**

Waste tank is full will not drain.

- ☐ Buildup or debris in tank. Check for buildup in tank at stool.
- ☐ Always use a minimum amount of biodegradable toilet paper.
- ☐ Always use plenty of water when flushing.
- ☐ Check termination valve for proper operation.

Temperature-pressure relief valve weeping.

- ☐ Weeping or dripping of relief valve while water heater is running does NOT mean it is faulty

SATELLITE DISH

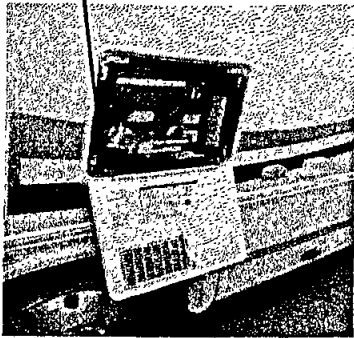
WASTE TANKS

WATER HEATER

Troubleshooting

WATER HEATER

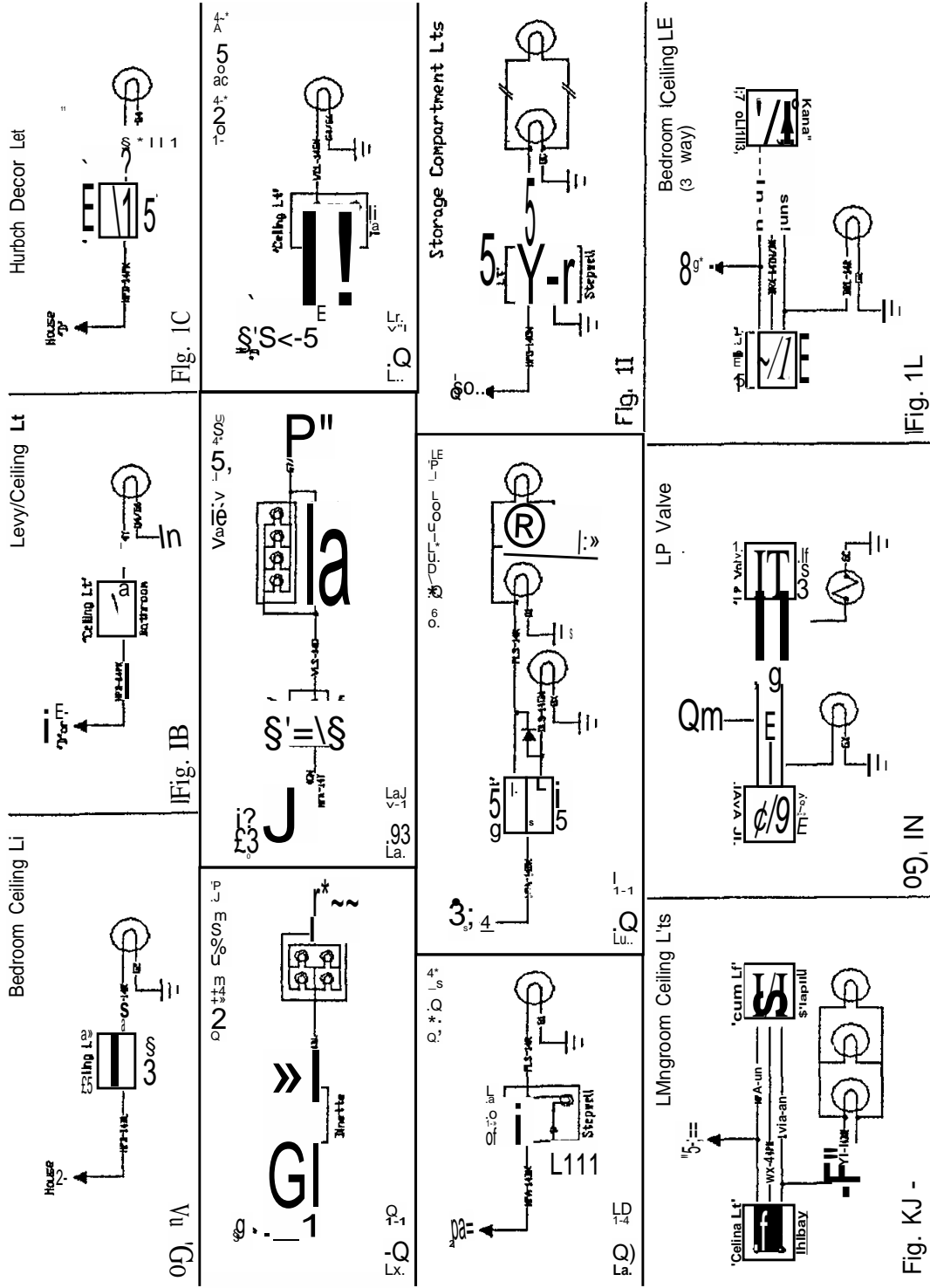
water heater drain plug



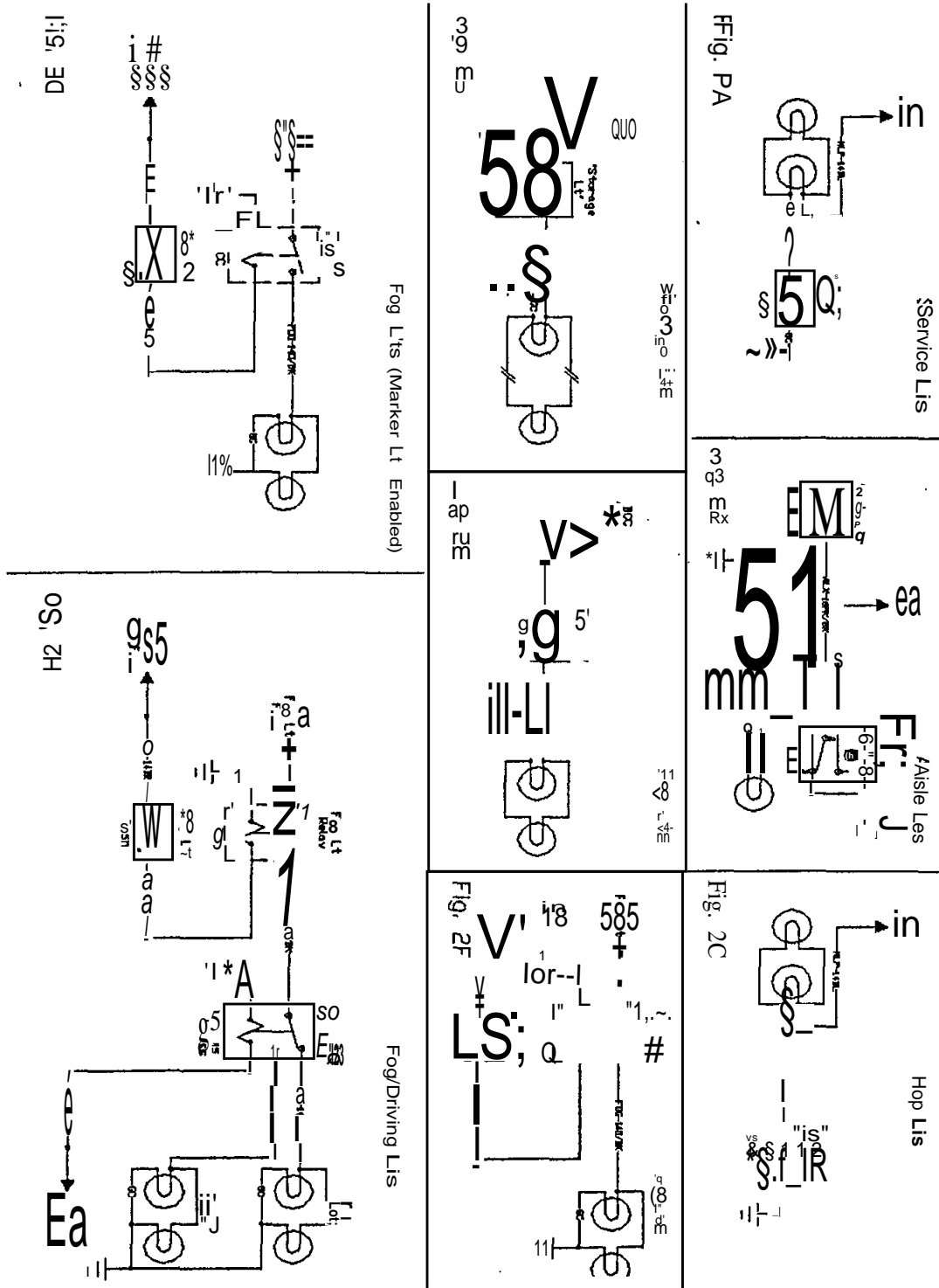
There is an odor that smells like rotten eggs.

- ☐ If your fresh water source has a rotten egg odor, you will need to find another source of fresh water before flushing and refilling the entire RV water storage system. To remove the hydrogen sulfide (rotten egg) odor:
 - ☐ Turn off your main water supply, that is your pump or your water hookup source.
 - ☐ Drain your water heater tank by removing the drain plug. Approximately two quarts of water will remain in the bottom of the tank. If you notice during the draining that the water is flowing sporadically or slowly, instead of flowing freely, you should open your relief valve to allow air into the tank.
 - ☐ If the water does not flow freely, take a small gauge wire or coat hanger and push through the drain opening to eliminate any obstructions.
 - ☐ After thoroughly draining the tank, flush the entire system with the water inlet all the way to the holding tank. To flush, use four parts of vinegar mixed with two parts of water. If you decide to use air pressure (55 PSI max), it may be applied either through the inlet or outlet on the rear of the tank. It may also be applied through the relief valve port. In this case, it will be necessary to first remove the relief valve. You may then insert your air pressure through the relief valve support flange. In either case, with the drain valve open, the air pressure will force the remaining water out of the tank. If air pressure is unavailable, you may flush your tank with fresh water. Fresh water should be pumped into the tank with the assistance of the on board water pump or with the assistance of external water pressure. Once again, external pressure may be pumped into the unit either through the inlet or outlet found on the rear of the water tank, or using the relief valve inlet located on the front of the unit.
 - ☐ Continue this flushing process for approximately five (5) minutes allowing ample time for the fresh water to agitate the stagnant water on the bottom of the tank and force the deposits through the drain opening.
 - ☐ Upon completion of the steps above, close the drain plug as well as the relief valve. Refill with fresh water, circulate and rinse.
- ☐ If you use your vehicle frequently or for long periods of time, flushing the water heater several times a year will prolong the life of the water heater storage tank.

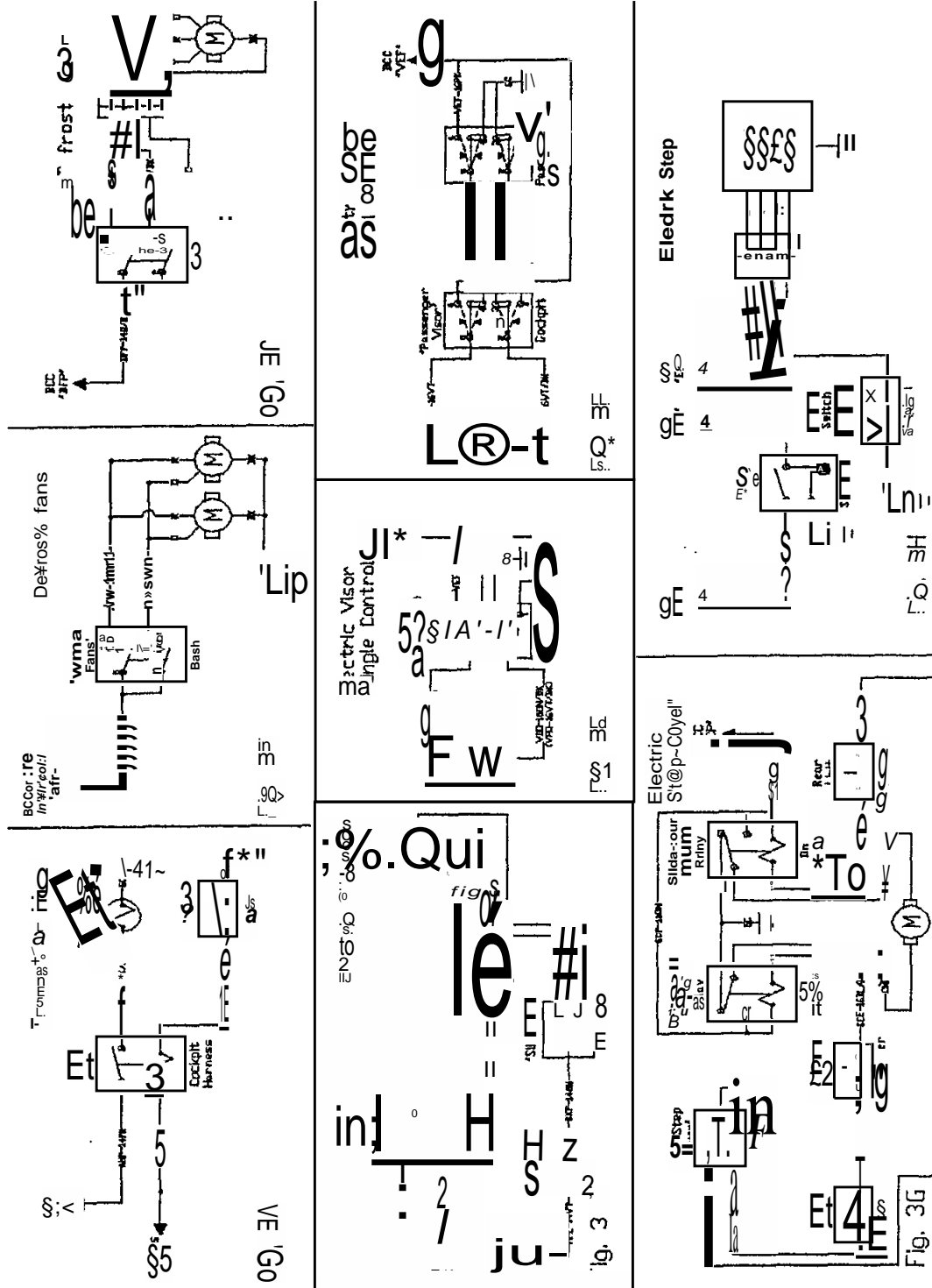
Electrical Diagrams



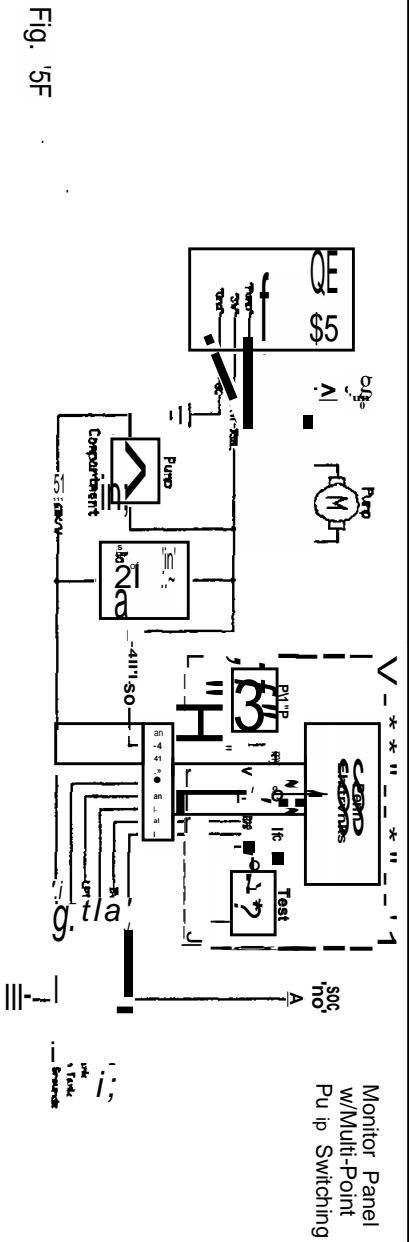
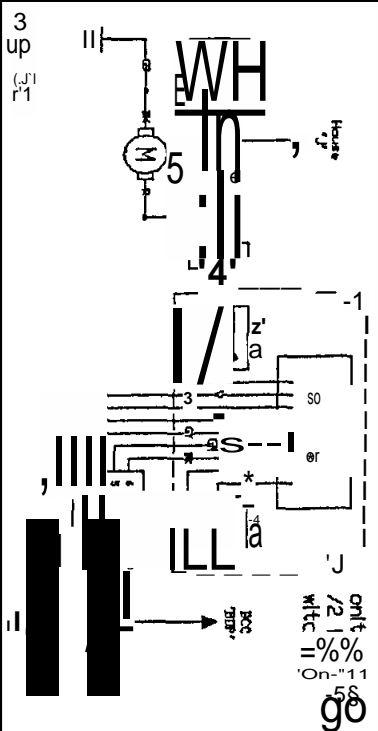
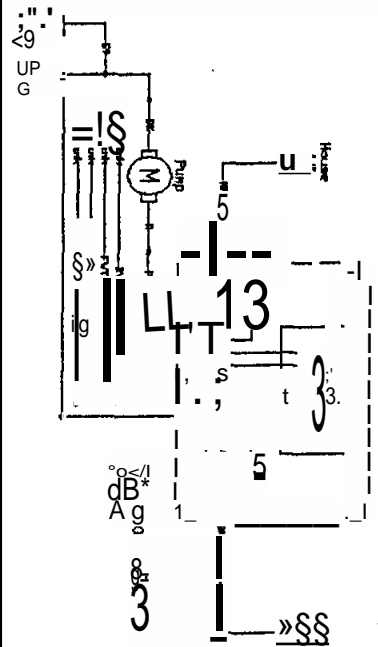
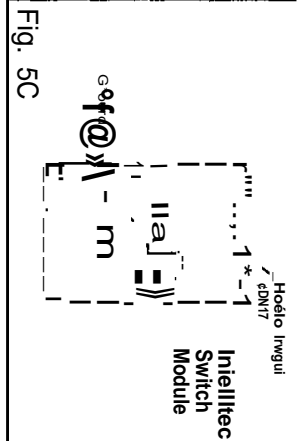
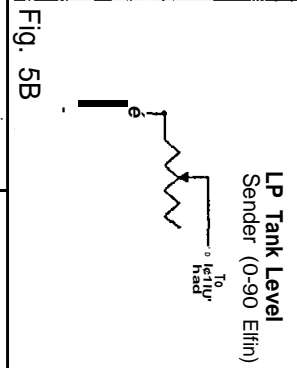
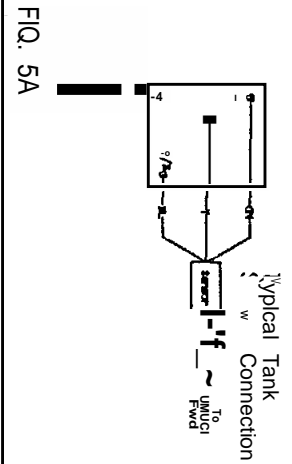
Electrical Diagrams



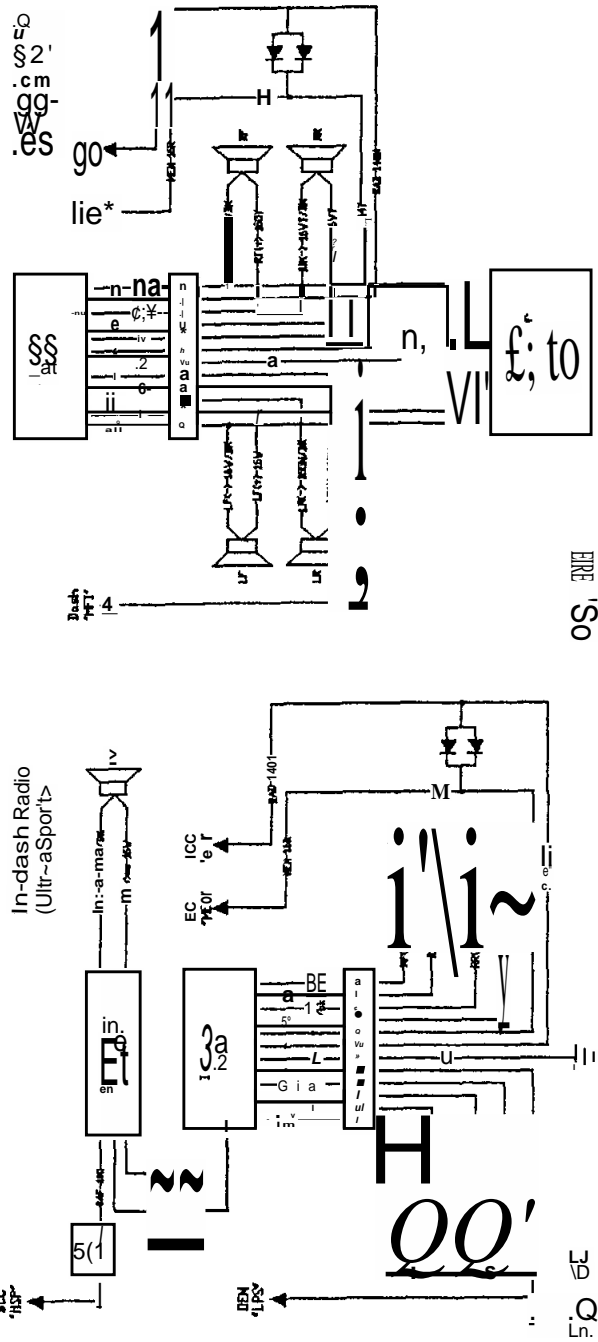
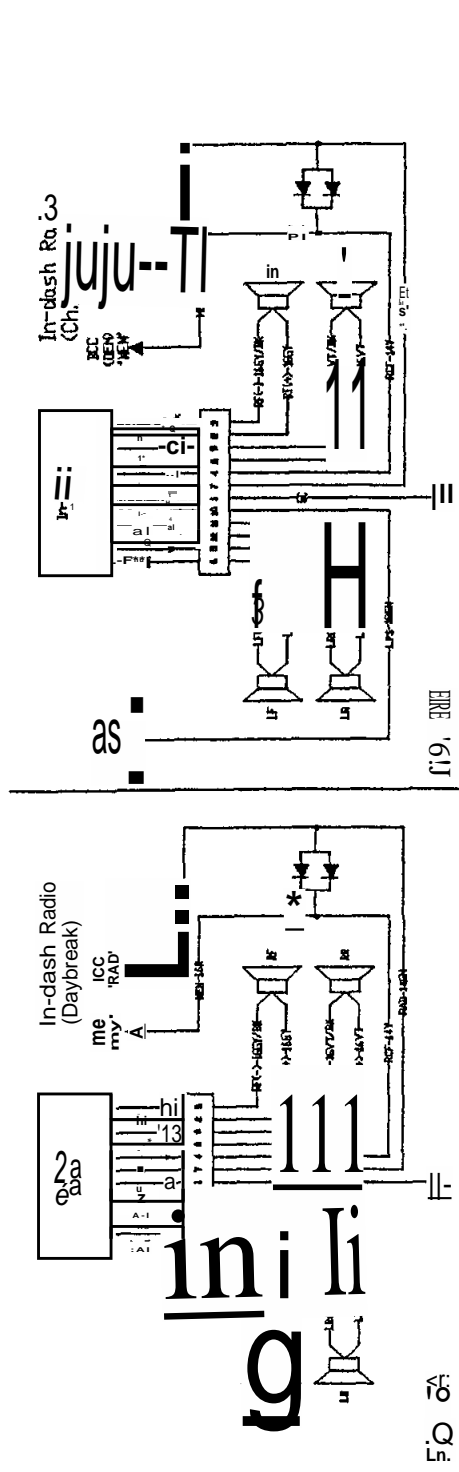
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Electrical Diagrams



Electrical Diagrams



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