ESSEX
2013

NEWMAR

WHEN YOU KNOW THE DIFFERENCE

Welcome, Friends!

Welcome to the Newmar family… and what a family it is. Born on Christian principles, and from the desire to build not the most, but the best, the legacy associated with the name Newmar is one of family pride and quality. We take humble pride in our history of innovation. We introduced the industry to the first "slide out" rooms, and continued our tradition of innovation with the first slide out in a motorized RV, the "Flush Floor" slide out, and the smooth "seamless" fiberglass body.

Your new Essex is more than just another recreational vehicle. It is the culmination of decades of RV design and building experience. It is at the forefront of current technology, built by the skilled hands and quality conscious eyes of craftsmen.

Here at Newmar, we recognize that a craftsman's final product is only as good as the materials they use, so we are selective about what we put into our coaches. We start with a foundation forged in the strength of steel and aluminum. We fill it with beautiful, durable hardwoods, and select name brand appliances and components, then build it on chassis' that are icons in the fire truck and RV industry because they stood the test of time. Then we hand finish our units with an artist's gentle touch.

It is important to us that you not just to enjoy your new unit but be proud of it, too. Your Essex has been built to the highest standards we have ever set and attained. That's why we back it with the best warranty in the industry. A heritage of quality and dependability make it easy for us to offer that kind of coverage.

The Newmar Essex proudly carries the Newmar torch into the new century, as a new generation of RV'ing begins. We share your excitement at this moment, and with you look forward to the years and miles of adventure the RV lifestyle offers you in your new Essex. Whether camping at your favorite remote fishing hole or tailgating at the big game with your friends, have fun in the knowledge that Newmar is with you 24 hours a day, 7 days a week.

Thank you again for your purchase of an Essex, and welcome to the Newmar family.

Newmar Corporation

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Chapter 1

GENERAL INFORMATION

Welcome to the world of Essex… a legacy of luxury, a heritage of innovation…

Your Essex is a very special vehicle. Beyond an existence as just another RV, your Essex is a more than a home on wheels. It is a statement. It is an image.

It is a lifestyle.

The Essex is a proud addition to the Newmar line of luxury motor coaches, blending cutting edge technology with an old world eye for detail, and a commitment to unrelenting craftsmanship. The Newmar heritage is one of innovation and creativity. From its inception, the Essex was designed to raise the bar to a new level of convenience and luxury.

Taking Delivery of your new Essex

The day you take delivery of your Essex is special time. It is when your dealer will walk you around the unit, familiarizing you with the different components and their operation. Because of the size and complexity of the Essex, it is a process that can seem overwhelming, even if you are an experienced RV'er.

Throughout the manufacturing process your vehicle has been inspected by our qualified technicians. However, our final inspection at the factory is not to be the last one. The pre-delivery inspection and systems check your dealer performs are the final inspections done to the unit prior to you receiving your new coach. Your dealer is also available to assist you in understanding the limited warranties and completing any necessary forms to activate the warranties for the various appliances and accessories installed in your unit.

Dealer Responsibilities

1. A pre-delivery inspection and systems check. Thoroughly inspecting the vehicle and the operation of the factory installed components.
2. A customer walk-through. This is done to familiarize the customer with the vehicle, its systems and components, and their operation.
3. Delivery of the Owner's Information Package. This package contains the warranty cards and registrations for the vehicle and factory installed components that carry a separate warranty. The detailed operating and maintenance instructions on these components are also included in this package.
4. Assisting the customer in completing the component registration forms, at the customer's request. To avoid loss of warranty coverage, the dealer should review the limited warranty provisions with the customer stressing the importance of filing warranty cards and registrations to the component's manufacturers within the prescribed time limit.

5. Providing the customer with information regarding warranty and non-warranty work on the vehicle and its separately warranted components whether the customer is in or out of the area.

Customer Responsibilities

The customer is responsible for regular and proper maintenance of the vehicle. Properly maintaining your vehicle will prevent conditions arising from neglect that are not covered by your Newmar limited warranty. The maintenance guidelines in this manual and any other applicable manual should be followed. It is your responsibility and obligation to return the vehicle to an authorized dealer for repairs and service.

To assist you in avoiding problems with your vehicle, we recommend you do the following:

A. Read the warranty. Go over it thoroughly with your dealer.

B. Inspect the vehicle. Do not accept delivery until you have gone through the unit with the dealer. Newmar has provided a check list to be used during retail delivery. Check each item on the list and make sure the dealer does the same. Do not sign this checklist until you have done this.

NOTE: The sales literature versus actual specifics to the vehicle's measurements, weights, or quantities may vary.

C. Ask questions about anything that you do not understand concerning your recreational vehicle.

D. When taking delivery, set an appointment for adjustments. This appointment should be approximately two (2) weeks after you accept delivery.

E. Responsible Use. Your vehicle is designed to be used for recreational or temporary living purposes. It is not designed to be used as a full-time residence or for commercial use. Commercial use means using as a business asset such as a mobile office or using the vehicle for lease/rental purposes.

Owner's Information Package

Included in this package are valuable documents about your vehicle and its components and systems. The Newmar Owner's Guide does not cover every possible detail of the equipment, standard and/or optional, installed on or in your vehicle. Consulting the booklets and instruction manuals in this package will help you safely operate, maintain, and troubleshoot these items.

Read all of the information and understand the safety and operating instructions included in the Owner's Information Package. To assure full warranty coverage, it is essential that all maintenance instructions are followed.

The Newmar Warranty on your new Essex

The Newmar Corporation Limited Warranty was provided to you by your selling dealer prior to purchase. Please refer to this document when inquiring about the Newmar Warranty. To receive an additional copy, please write to:

Newmar Corporation,
Warranty Department
P.O. Box 30,
Nappanee, IN 46550-0030.

Warranty Service Deadline

Warranty service required needs to be completed during the term of the warranty. Service work scheduled or performed after the expiration of the Newmar warranty **WILL NOT** be covered.

Customer Relations

If you wish to schedule maintenance work, schedule service work, or order parts you should notify your local authorized Newmar Service Center to set up an appointment. If you are unsure of the location of the closest authorized Service Center, see the listing in this manual. You may also write to:

Newmar Corporation
Warranty Department
72185 C.R. 3
P.O. Box 30
Nappanee, IN 46550-0030

Reporting Safety Defects

If you believe that your vehicle has a significant defect which could cause a crash or could cause injury or death, you should inform the National Highway Traffic Safety Administration (NHTSA) and Newmar Corporation.

To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-888-327-4236 (TTY #1-800-424-9153) or write to: NHTSA, 400 Seventh Street, S.W., Washington, DC 20590. NHTSA also has established a website where you can contact them:

http://www.safecar.gov

Owners Guide Information

This guide has been provided by Newmar Corporation solely for the purpose of providing instructions about the operation and maintenance of this vehicle and its components. Nothing n this manual creates any warranty, either expressed or implied. The only warranty offered by Newmar Corporation is set forth in the written limited warranty that applies to this vehicle.

Instructions are included in this manual for operating some of the components that are standard on this vehicle. Instructions are also given for components that are options and may not appear on all vehicles. For more detailed information on components refer to the individual manufacturer's operating instructions contained in the Owner's Information Package.

The limited warranties issued by the chassis and component manufacturers require periodic service and maintenance. The owner's failure to provide this service and/or maintenance may result in the loss of warranty coverage. The owner should review the Newmar Corporation Limited Warranty and other manufacturers' limited warranties on all components applicable to this vehicle. To activate the warranties on the components within your Newmar recreational vehicle, be sure to file the appropriate registration card with the component manufacturer as described with the individual instruction booklet.

Newmar Corporation has compiled the most current information available at the time of publication. If the components in your unit vary significantly from what is described within this manual, then consult the instructions provided by the component manufacturer found in the Owner's Information Package.

Throughout this guide, reference is made to the following terms: Warning, Caution, and Important. These terms indicate important information that must be understood and followed. The definitions of these terms are:

WARNING

Emphasizes an area in which personal injury or even death could result from failure to follow instructions properly. Mechanical damage may also occur.

CAUTION

Failure to observe a caution can cause damage to the equipment or unit. Personal injury is unlikely.

IMPORTANT

Provides additional information to make a step easier or more clear.

Placards and Labels

You will find a variety of placards and labels located throughout your new Essex. These are installed to aid in the operation of a component, or to warn of potential dangers while operating a specific appliance, accessory, or system. These will include warnings regarding the electrical system, Propane gas system, fueling the RV, and so on. It is important to read these placards and warnings to insure the safety and proper operation of the item.

An example such a label is given below; this label is affixed to your unit on or adjacent to your Propane tank:

WARNING: DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY. Overfilling the Propane 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 Propane gas.

NOTE: Reading, understanding, and heading all such labels and placards is critical to the safe, efficient use of your motor coach.

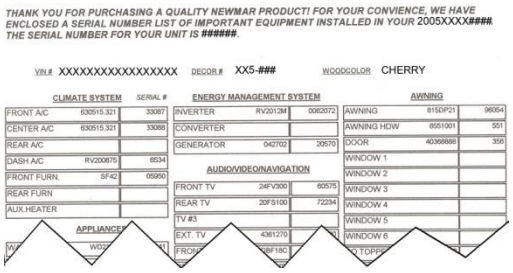
If you have questions regarding a warning label or placard for a component or appliance in your new Essex, please contact your dealer or Newmar Corporation directly for assistance.

Information Sheet / Appliance Data Label

Newmar has enclosed an Information Sheet for your convenience. This sheet contains important information about your coach. This label can be found in the largest wardrobe in the unit, usually either in the bedroom or bathroom area. Listed on this sheet is the six digit Newmar Serial Number. This number is needed whenever making an appointment for service or ordering parts through your Newmar Dealer or Service Center. Also listed is the Vehicle Identification Number (VIN). The VIN is the legal identification of the completed vehicle and is used by the state for vehicle registration. Both of these numbers are also listed on the Customer Care card Newmar issues upon receipt of registration.

Below is a sample of the information Sheet.

1. The Newmar Serial Number
2. Vehicle Identification Number (VIN)
3. Year/Brand/Type/Floorplan
4. Manufacturer, Model and Serial Number of factory installed equipment.



THANK YOU FOR PURCHASING A QUALITY NEWMAR PRODUCT! FOR YOUR CONVIENCE, WE HAVE ENCLOSED A SERIAL NUMBER LIST OF IMPORTANT EQUIPMENT INSTALLED IN YOUR 2005XXXX####. THE SERIAL NUMBER FOR YOUR UNIT IS ######.

VIN # XXXXXXXXXXXXXXXXX DECOR # XX5-### WOODCOLOR CHERRY

CLIMATE SYSTEM		SERIAL #
FRONT A/C	630515.321	33087
CENTER A/C	630515.321	33088
REAR A/C		
DASH A/C	RV200875	6534
FRONT FURN.	SF42	05950
REAR FURN		
AUX.HEATER		

ENERGY MANAGEMENT SYSTEM		
INVERTER	RV2012M	0062072
CONVERTER		
GENERATOR	042702	20570

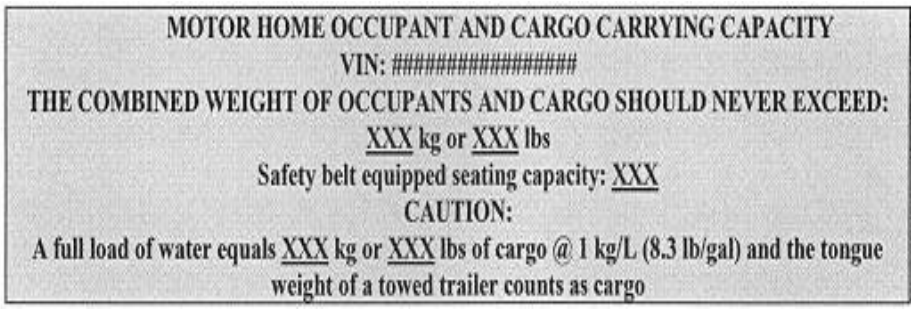
AUDIO/VIDEO/NAVIGATION		
FRONT TV	24FV300	60575
REAR TV	20FS100	72234
TV #3		
EXT. TV	4361270	

AWNING		
AWNING	615DP21	96054
AWNING HDW	6551001	551
DOOR	40368888	356
WINDOW 1		
WINDOW 2		
WINDOW 3		
WINDOW 4		
WINDOW 5		
WINDOW 6		

NOTE: **The manufacturer, model, and serial number of the appliances and accessories installed at the factory in your unit are listed on this label for convenience. It is important that the label remain in the coach for identification purposes. Do not remove or relocate this label.**

Weight Information

Below is a sample of a weight information label which may appear in your unit.


MOTOR HOME OCCUPANT AND CARGO CARRYING CAPACITY
VIN: ################
THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED:
XXX kg or XXX lbs
Safety belt equipped seating capacity: XXX
CAUTION:
A full load of water equals XXX kg or XXX lbs of cargo @ 1 kg/L (8.3 lb/gal) and the tongue weight of a towed trailer counts as cargo

WEIGHING THE UNIT

The following definitions are given to help in communications of issues of weight and your unit.

GAWR: Gross Axle Weight Rating is the maximum permissible weight for an axle.

GCWR: Gross Combination Weight Rating is the value specified by the manufacturer of the vehicle as the maximum allowable loaded weight of this motorhome and any towed trailer or towed vehicle.

GVWR: Gross Vehicle Weight Rating is the maximum permissible weight of this fully loaded motorhome. The GVWR is equal to or greater than the sum of the Unloaded Vehicle Weight plus the Cargo Carrying Capacity.

UVW: Unloaded Vehicle Weight is the weight of this motorhome as built at the factory with full fuel, engine oil, and coolants. The UVW does not include cargo, fresh water, Propane gas, or dealer installed accessories.

CCC: Cargo Carrying Capacity is equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water heater), full Propane-Gas weight and SCWR.

GVW: Gross Vehicle Weight is the weight of the unit with all items and supplies that are loaded into the unit at any point in time.

SCWR: Sleeping Capacity Weight Rating is the manufacturer's designated number of sleeping positions multiplied by 154 pounds (70 kilograms).

NOTE: The sales literature may give approximates or standards. Each individual unit may weigh differently based on the factory and/or dealer options added. To assure the accuracy of your weights be sure the unit is always level during weighing.

The unit has been built to comply with the component suppliers recommended limits and give you a realistic CCC. When loading the unit, distribute the items so that not all of the weight is added to one area of the unit. If you have questions as to what the weight of the unit is after it has been loaded, take the unit to a drive-on scale or use individual wheel scales and verify that the weights are within the limits of those specified for the unit.

When weighing the unit, follow these instructions. Failure to follow these instructions may give an erroneous weight reading.

1. Pull the unit onto the scales shown in Fig. 1. This is the total weight of the unit. To do this, pull the unit onto the scales so that all of the wheels are on the scale. Record the weight. This is the GVW and should not exceed the GVWR supplied by Newmar for the unit.

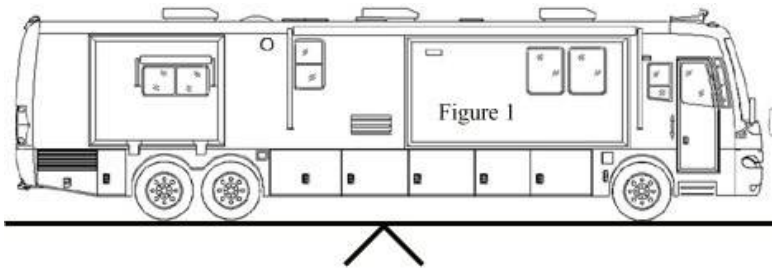


Figure 1

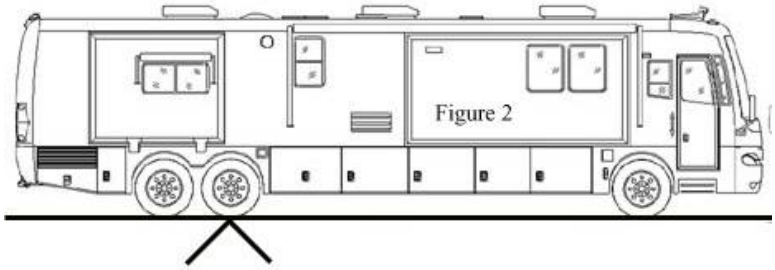
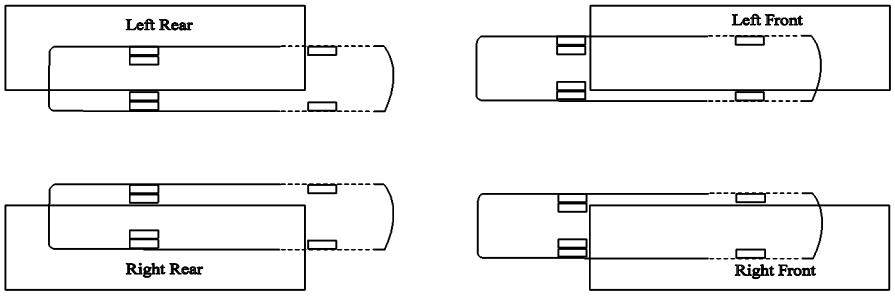


Figure 2



2. Move the unit so that the front wheels are off the scales as shown in Fig. 2. Record the weight. This is the total weight of the unit except for the front axle. This weight should not exceed the total rating of the axles remaining on the scales. The front axle weight is determined by subtracting this weight from the GVW that was obtained in Step One (1). This amount should not exceed the listed front axle weight rating. The recommended procedure to weigh a motorhome accurately is on individual corner scales. Since these are not always available, below is a diagram of how to weigh a motorhome on a typical truck scale.

Note: Since only one corner can be weighed at a time, the remaining three corners need to be as close to the scale as possible without being on the scale and the unit needs to be as level as possible. Remember, wind and rain can cause inaccuracies of weights.

GENERAL TIRE INFORMATION

Tire Nomenclature

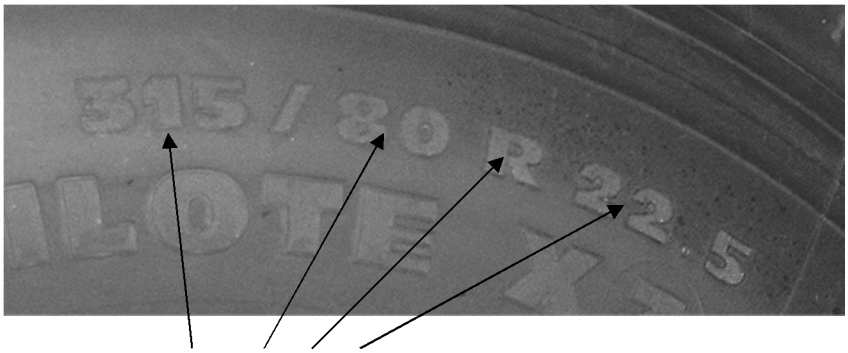
It is important to locate and read all the information located on the sidewall of your tires to insure proper use and long, safe life. The two primary areas of concern are the tire size information, and the operation / inflation information.

Tire Inflation Information

The sidewall of the tire also contains an information block that contains more detailed construction information (number of plys, etc.), and inflation and carrying capacity information. It is critical that you become familiar with this information, and operate the vehicle within the capacity parameters outlined in the detailed tire inflation information. Failure to follow and monitor tire pressure guide lines closely can result in premature tire failure.

Tire Size

The tire size is given in the following markings:



This tire size is 315 / 80 R 22.5. From this size, we can determine the physical dimensions of the tire, as well as its basic construction. The tire size breaks down like this:

The first number, “315”, is the section width of the tire in millimeters. Section width is the measurement of the tire from outside sidewall to outside sidewall.

The second number is the height of the sidewall, expressed as a percentage of the section width. In this case, the number is “80”, so the sidewall height is 80% of the section width of the tire.

The “R” in the tire size indicates that this tire is “radial” in construction. The belts are wrapped around the tire in a radial design, from bead to bead.

The final number in the size designation is “22.5”, which is the rim size the tire was designed to fit. This tire fits a 22.5” diameter wheel.

The sidewall of the tire also contains other information that is important to know to insure proper use of the tire, as well as to maintain long life. Take the time to become familiar with the size, load rating, and pressure information noted on the sidewalls of the tires, and note that these readings can change depending on whether they are used in single tire or "dual" tire situations.

IMPORTANT RV TIRE INFORMATION

READ AND UNDERSTAND THE FOLLOWING INFORMATION BEFORE TAKING YOUR FIRST TRIP IN YOUR RV!

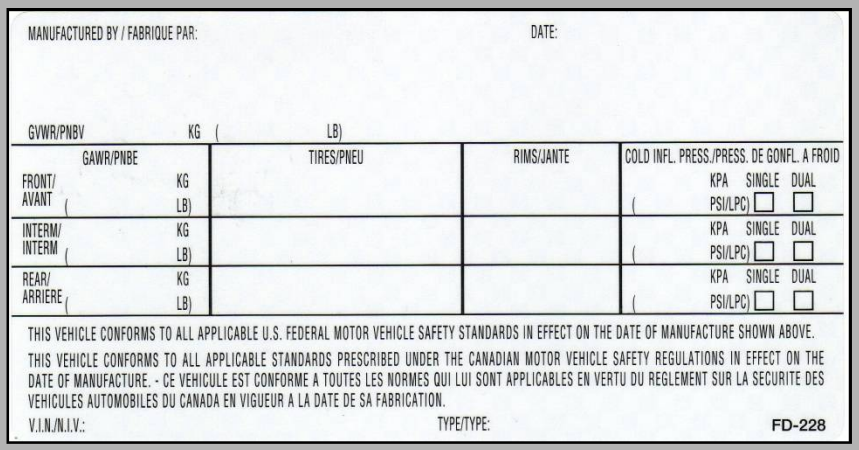
⚠ WARNING

To insure your tires are operating safely, regular inspection of your tires, and checking of tire pressures is absolutely mandatory. **FAILURE TO FOLLOW PROPER INFLATION GUIDELINES MAY RESULT IN TIRE FAILURE, WHICH, UNDER CERTAIN CIRCUMSTANCE CAN CAUSE LOSS OF VEHICLE CONTROL OR ACCIDENTS THAT MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, AND / OR DEATH.**

For safe operation and maximum weight carrying capacity, it is imperative that the tires be inflated to and maintained at the listed tire pressures on the Federal ID Tag that is affixed to the interior wall just behind the driver's seat in motorhomes, and to the lower front corner of the road side sidewall on fifth wheel trailers. Below is a sample of the Federal ID Tag you will find with your RV.

IT IS PARAMOUNT TO THE SAFE OPERATION OF THE VEHICLE TO MAINTAIN PROPER TIRE PRESSURES. TIRE PRESSURES SHOULD BE CHECKED AND ADJUSTED BEFORE AND AFTER EACH TRIP, AND SHOULD ALWAYS BE CHECKED AND ADJUSTED WITH THE TIRES COLD. NEVER ADD OR RELEASE PRESSURE FROM THE TIRES WHEN THEY ARE HOT (AFTER HAVING DRIVEN A MILE OR MORE).

For additional information on your tires, contact Newmar Corporation.



MANUFACTURED BY / FABRIQUE PAR: DATE:

GVWR/PNBV KG (LB)

GAWR/PNBE	TIRES/PNEU	RIMS/JANTE	COLD INFL. PRESS./PRESS. DE GONFL. A FROID
FRONT/ AVANT KG (LB)			KPA SINGLE DUAL (PSI/LPC) ☐ ☐
INTERM/ INTERM KG (LB)			KPA SINGLE DUAL (PSI/LPC) ☐ ☐
REAR/ ARRIERE KG (LB)			KPA SINGLE DUAL (PSI/LPC) ☐ ☐

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE. - CE VEHICULE EST CONFORME A TOUTES LES NORMES QUI LUI SONT APPLICABLES EN VERTU DU REGLEMENT SUR LA SECURITE DES VEHICULES AUTOMOBILES DU CANADA EN VIGUEUR A LA DATE DE SA FABRICATION.

V.I.N./N.I.V.: TYPE/TYPE: FD-228

CUSTOMER ASSISTANCE

Newmar Corporation 1-866-463-9627
Ford Motor Company 1-800-444-3311
Freightliner Custom Chassis 1-800-FTL-HELP
Spartan Motors 1-800-543-4277
Spartan Roadside Companion 1-888-890-1741
Workhorse Custom Chassis ……1-877-946-7731

COMPONENT PART SUPPLIERS

Accessories

Back Up Monitor	Alpha Systems	574-295-5206
	A. S. A. Inc.	574-266-1886
CB Radio (Cobra)	Tri Star Distributing	800-456-3340
Computer TripTek	River Park, Inc.	800-442-7717
Furniture (Upholstered)	Flexsteel Industries	563-556-7730
	Villa International	562-404-8111
Navigation	Mito	888-433-6486
Roof Vent	FanTastic Vent Corp.	800-521-0298
	Ventline	574-848-4491
Security System	Tri/Mark.	800-447-0343
Stereo - Dash	Mito	888-433-6486
Stereo (Sony)	River Park, Inc.	800-442-7717
TV Antenna	The Winegard Co.	800-288-8094
Television (Sony)	River Park, Inc.	800-442-7717
Satellite Dish (Winegard)	The Winegard Co.	800-288-8094
Satelllite Dish (KVH)	River Park, Inc.	800-442-7717
DVD	River Park, Inc.	800-442-7717

Air Conditioning

Dash Air	Evans Tempcon	800-354-7088
Roof Air	Dometic	800-544-4881

Appliances

Dishwasher,	Midwest Sales	574-287-3365
Freezer	Dometic	800-544-4881
Microwave (Dometic)	Dometic	800-544-4881
Microwave (GE)	Midwest Sales	574-287-3365
Range	Atwood-Greenbrier	815-877-5700
	Magic Chef	515-792-7000

Refrigerator	Dometic	800-544-4881
	Norcold	800-543-1219
Water Heater - Atwood	Atwood Mobile Prod.	815-877-5700
Water Heater - Suburban	Suburban Mfg.	800-659-2138
Water Heater - Oasis	ITR	800-993-4402
Washer/Dryer, 1-piece	Splendide	800-736-4127
Washer/Dryer, 2-piece	Whirlpool	800-442-1111

Electrical (tires and batteries separately warranted)

Batteries - 12Volt	Interstate	800-872-4100
Batteries - 6 Volt	Interstate	888-772-3600
Inverter/Converter	Magnum	425-353-8833
Generators	Onan	800-888-6626

Exterior

Awning & Hardware	A & E	800-544-4881
	Carefree of Colorado	800-621-2617
	Girard	800-382-8442
Jacks (CA & DP)	H W H Corporation	800-321-3494
Jacks (FW)	Atwood Mobile Prod.	815-877-5700
	Equalizer Systems.	800-846-9659
Rubber Suspension (FW)	Mor-Ryde, Inc.	574-293-1581
Steps, Electrical	Lippert/Coach Step	574-535-2085
Steps, Electrical	Kwikee Products	800-736-9961
Steps, Manual	Hickory Springs Mfg.	574-262-2399
Tires	Goodyear	800-227-1999
	Michelin	803-234-5000

Heating

Furnaces	Atwood Mobile Prod.	815-877-5700
	Suburban Mfg.	800-659-2138
Furnace, Hydronic	ITR	800-993-4402

Chapter 2

GENERAL & SAFETY INFORMATION

DRIVING AND SAFETY INFORMATION

WARNING

Prior to driving your vehicle, be sure you have read this entire owner's guide and that you understand your vehicle's equipment completely and how to use the equipment safely.
Read and understand all of the instructions and precautions in this owner's guide and the chassis manufacturer owner's manual before operating your new motorhome. Listed below are some safety precautions that must be adhered to while your motorhome is in motion. These precautions, as well as others that involve possible damage to equipment, are also listed in the appropriate areas in this manual.

Before Driving Away

The following is a brief list of procedures that will aid in your driving safety and extend your equipment's life.

- Windows, mirrors, and light lenses are to be clean and unobstructed.
- Tires should be checked for proper cold inflation pressure.
- Wheel lug nuts should be checked for proper tightness.
- Fluid levels, including engine oil, transmission fluid, coolant, power steering fluid, and windshield washer solvent, should be checked and filled if necessary.
- Disconnect the unit and store the sewer and water supply hoses as well as shoreline power cords.
- Secure all cargo in the storage compartments in the event of a sudden stop.
- Verify that the entrance step has retracted prior to engine ignition.

Driving

There are various adjustments that need to be made prior to starting and moving the vehicle.

- Among them are the driver's seat, the tilt steering, and the exterior rear view mirrors.
- The dashboard may contain several gauges and controls you have not previously used. Become familiar with all of these devices and their operation before starting out.
- The cruise control is not to be operated on icy roads, extremely wet roads, winding roads, heavy traffic, or in any other traffic situation where a constant speed cannot be maintained.
- While driving on slippery surfaces, use care when accelerating or decelerating. Skidding and loss of vehicle control may be the result of abrupt changes in speed.
- Driving through water deep enough to wet the brakes may affect the stopping distance or cause the vehicle to pull to one side. If you have driven through deep water, check the brake operation in a safe area to be sure they have not been affected. Never operate a vehicle if a difference in braking efficiency is noticeable.
- Extreme terrain and adverse weather may affect the handling and/or performance of your vehicle. Please refer to your chassis manual for related information.

Dash Instrumentation and Controls

The dash in your new Essex is designed to be ergonomically efficient as well as aesthetically pleasing. It features instrumentation that allows you to monitor the engine, chassis, and power train as you drive. Warning and status lights alert you to conditions that require your attention, and switches, buttons, and accessories are positioned at your fingertips. All dash gauges are "back-lit" for enhanced visibility during night driving. The gauges are arranged as follows:

Left Cluster

Voltage: Displays DC voltage at the chassis battery terminals. Note that some variation in the readings on this gauge is normal. With the ignition key in the "run" position, but the engine shut off, it will read chassis battery voltage. If the engine is running, the voltage displayed reflects the DC voltage being supplied by the engine alternator as measured at the chassis batteries.

Fuel: Displays the approximate level of fuel left as a fraction of a tank ("Full", "3/4", "1/2", "1/4", and "Empty"). Note that accuracy of this gauge is greatly influenced by motion of the unit, or sloped terrain. The readings are an approximation of the remaining fuel in the tank.

Front Air Tank: Displays the air pressure in the front air tank. The normal operating range for this air system is 90 – 125 PSI. Air from the engine mounted compressor fills the tank when the engine is running. The air is used to inflate air suspension bags, and to operate the air brakes on your Essex, as well as any other air powered accessories.

Rear Air Tank: Displays the air pressure in the rear air tank. The normal operating range for this air system is 90 – 125 PSI. Air from the engine mounted compressor fills the tank when the engine is running. The air is used to inflate air suspension bags, and to operate the air brakes on your Essex, as well as any other air powered accessories.

Center Cluster

Speedometer: Reads vehicle speed in miles per hour / kilometers per hour.

Odometer: Cumulative miles on your Essex are displayed on the screen located at the bottom of the speedometer. This electronic digital display allows for easy reading. The odometer also incorporates two separate "trip" odometers, which can be reset to "0" using the button at the bottom of the display. This feature is useful for reference mileages when measuring fuel economy or trip distances.

Right Cluster

Tachometer: Displays engine RPM's (Revolutions Per Minute) when running.

Oil Pressure: Displays engine oil pressure in PSI (Pounds per Square Inch). Oil pressure will vary widely with engine temperature and engine operating RPM's.

Temperature: Displays engine operating temperature. Normal operating temperatures are 180 – 220 degrees, depending on how the coach is being used. Towing heavy loads or operating in the mountains will cause the engine temperature to run higher.

Jacks Down Warning Light

This light, located under the speedometer, illuminates when the ignition switch is on and the hydraulic leveling jacks are in the “down” position. This light, and the accompanying warning alarm, serve as a reminder to raise and store the jacks prior to departure. The light and alarm will continue until all of the jacks have returned to their “stored” position or unit air system has been replenished.

Antenna Up Warning Light

This light will illuminate when the television antenna (NOT the DSS satellite dish) is in the extended position. It will turn off when the TV antenna is retracted completely into the “travel” position. There is no accompanying alarm with this warning light.

Warning Lights and Signals

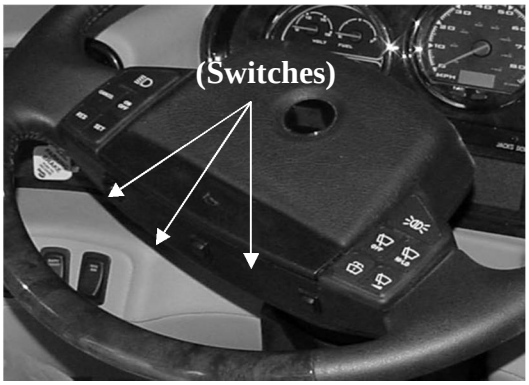
Indicator	Meaning	Action To Take
Left Turn	Left turn signals are flashing.	
Park Brake	The parking brake is applied.	
Cruise Control	The cruise control is engaged.	
High Beam	The high beams are on.	
Auxiliary Brake	The auxiliary brake is applied.	
Seat Belt Reminder	Buckle Up!	
Low Fuel	Fuel level is below 1/8 tank.	
Right Turn	Right turn signals are flashing.	
Check Transmission	Unknown transmission problem has been detected.	Service the vehicle.
Transmission Temperature	The transmission has overheated.	Pull over and stop engine as soon as it is safe.
Anti-Skid Brake	Problem detected in ABS	Service the vehicle.
Water In Fuel	The fuel/water separator is full.	Service the vehicle.
Wait to Start	Wait to start engine.	Do not start engine while this telltale is on.
Maintenance	Scheduled maintenance is due.	Service the vehicle.
Check Engine	An unknown engine problem has been detected.	Service the vehicle as soon as possible
Stop Engine	A potentially serious engine problem has been detected.	Pull over and stop the engine as soon as it is safe.

Spartan Smart Wheel

(w/Power Pedal controls)

The Spartan "Smart Wheel" offers a touch pad switch panel that allows you to operate a number of different driver related functions without ever having to take your hands off of the steering wheel. It offers fingertip control of wipers, washers, headlamps.

On the bottom of the steering wheel switch pad are three rocker switches. These switches control the tilt and telescope position of the steering column, and the position of the brake and throttle pedals. The first switch (on the left) tilts the steering column up and down to allow for easy access to the driver's seat, while still allowing the driver to position the wheel for comfort and an excellent view of the instruments. The center switch allows the driver to telescope the steering wheel position in or out, again to provide for greater comfort and an unimpaired view of the gauges.



The far right rocker switch moves the brake and throttle pedals under the dash. This allows for greater flexibility in seating position, as well as improved individual access to the pedals.

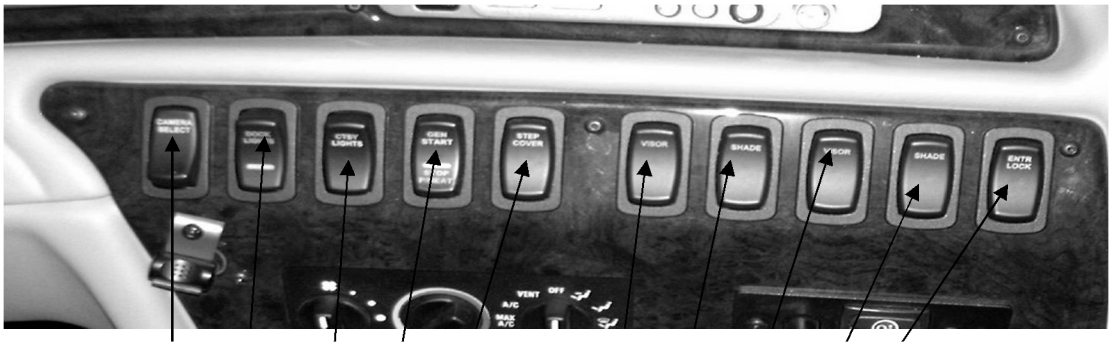
Seat Memory

Your Essex is equipped with a "Seat Memory" package that allows you to set and store up three different combinations of seat, steering wheel, pedal, and exterior rear view mirror positions for up to three different drivers.

To program a driving position, position the seat, the pedals, steering wheel and exterior rear view mirrors so they are set for travel. Press and hold "Set", then press and release either the #1, #2, or #3 button. The position of each of those components is now stored in the memory. Any time you turn the ignition on and press the number button chosen, the seat, pedals, steering wheel, and exterior rear view mirrors will return to this preset position.

Dash Switches

To ease operation of the various accessories and systems used during travel, the “cockpit” area has been designed to put controls and switches within easy reach of the driver. The following is a description of the switches and their functions.



Right Side Switch Panel

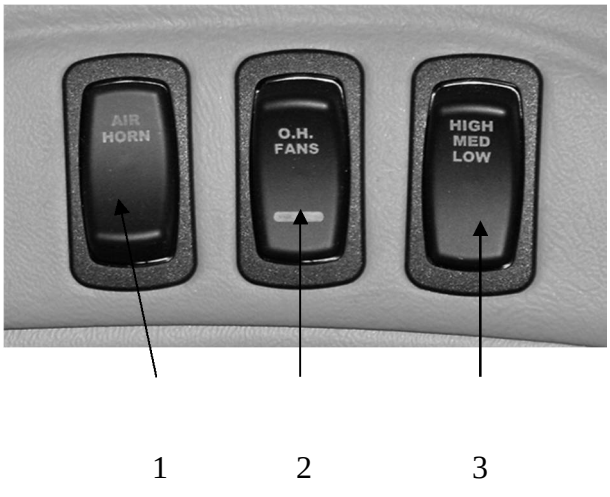
1. Camera Select (toggles between different rear / side vision cameras)
2. Docking Lights (operates exterior docking lights to aid in parking after dark).
3. Courtesy Lights (floor mounted pathway lighting).
4. Generator Start / Stop (starts and stops generator).
5. Step Cover (folds entrance steps to form a platform for pass side foot rest).
6. Drivers Side Sun Visor (operates driver side windshield sun visor).
7. Drivers Side Sun Shade (operates driver side window sun shade).
8. Passengers Side Sun Visor (operates passenger side windshield sun visor).
9. Passenger Side Sun Shade (operates passenger side window sun shade).
10. Entrance Lock (locks and unlocks power lock on entrance door).

Right Side Switches (above ignition switch)

1. Air Horn (selects between air horn and electric horn).

2. Overhead Fans (turns on the fans in the front overhead cabinet to circulate air across the windshield).

3. Fan Speed (selects speed of front overhead fans).

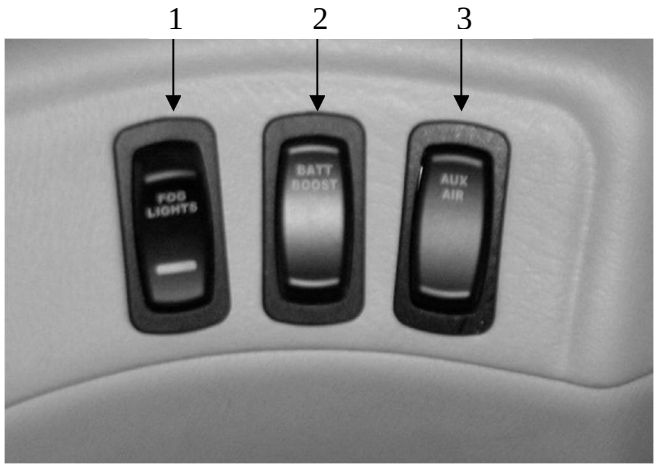


Left Side Dash Switches

1. Fog Lights (operates exterior front “fog” lights).

2. Battery Boost (Momentarily connects the house batteries and chassis for additional cranking power).

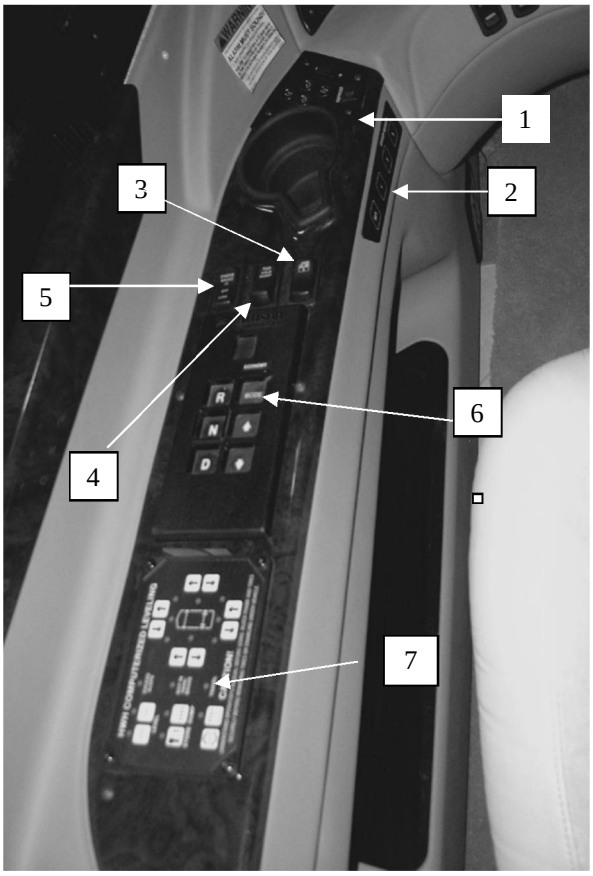
3. Aux (auxiliary) Air (operates the small electric air compressor used by the HWH Leveling System for air leveling of the coach).



Drivers Side Console Switches

1. Power Mirror Control Pad (adjusts exterior rear view mirror position. Also operates mirror heat for improved visibility in adverse conditions).

2. Memory Seat Control Pad (allows programming of up to three different driving positions into a memory).



3. Engine Brake Switch (operates engine brake; “Hi” and “Low” selectable).

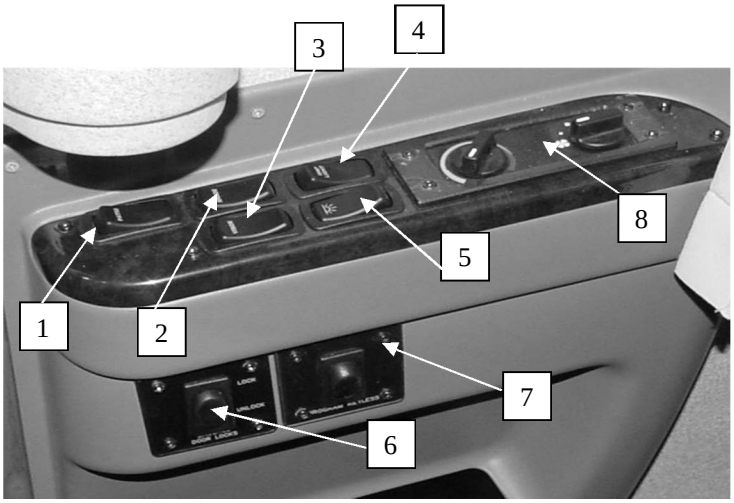
4. Tag Axle Dump (bleeds the air out of the tag axle suspension to place more weight on the drive axle tires for improved traction in slippery conditions).

5. Drivers Power Window Switch (operates driver side power window).

6. Transmission Selector Pad (operates Allison transmission).

7. HWH Leveling System Touch Pad (operates HWH leveling system).

Passenger Side Console Switches



1. Patio Light (operates exterior patio light).

2. Power Visor (operates passenger side front sun visor).

3. Power Shade (operates passenger side power sun shade).

4. Map Light (operates passenger side map light).

5. Interior Lights (operates the four front overhead interior lights to illuminate the steps as you enter).

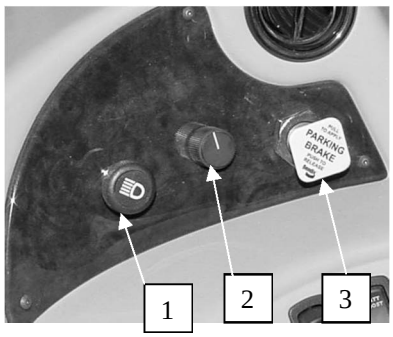
6. Power Door Locks (power locking for the entrance and basement doors).

7. Keyless Entry Programming (allows personalized programming of the keyless entry system code). (if applicable)

8. Passenger Side HVAC Control Panel (allows passenger to tailor the dash HVAC to their comfort).

Headlamps and Parking Brake

To the left of the instrument cluster is a small panel that houses the headlamp controls and the parking brake switch.



1. The left switch turns the headlamps and parking / clearance lamps on and off. It also rotates to turn the driver's side map light off and on.

2. The center switch controls the brightness of the dash instrumentation lighting.

3. The right knob engages and disengages the parking brake.

Power Seat Operation

The driver and passenger front seats are mounted on power pedestals that offer a wide range of adjustments. The center "joystick" switch moves the seat horizontally and vertically. The front rocker switch tilts the front of the seat up and down. The first rocker switch aft of the "joystick" switch controls the tilt of the rear of the seat base.

Additional switches control the recline angle of the seat back, and the inflatable "lumbar" support in the lower back region of the seat back.

A release lever allows the seats to rotate on the pedestal, allowing the seats to face into the living area.

Rear Vision System

Your Essex is equipped with a standard Rear Vision system. This closed circuit television system features a camera mounted on the top of the rear cap that is connected to the in-dash video screen. This system comes on automatically when you put the transmission in reverse to allow you to see behind your unit when backing. Additionally, it can be manually turned on in transit to allow you to monitor your towed vehicle or for additional assistance in passing maneuvers.

Side View Cameras (Optional)

As an option for the rear vision system, your unit may be equipped with "side view" cameras. These cameras are tied into the rear vision system and are activated by the turn signals. When a turn signal is activated, the monitor will switch to display that side of the unit. If the rear vision monitor is turned on manually, you can toggle through the cameras by using the "source" button, allowing you to stay on any given camera that you chose.

Trip Tek Monitoring System (Optional)

Your Essex is equipped with the "Trip Tek" Monitoring system. This system uses the rear vision monitor panel to display information regarding engine and powertrain use and maintenance, generator use and maintenance, and trip information.

By using the Trip Tek control panel (located above the dash radio), you can scroll through the various menus on the rear vision monitor screen to select the information you seek, and to program and reset service interval reminders.

For detailed operating instructions, please refer to the Trip Tek operators guide supplied with your new Essex.

Pioneer In-Dash Stereo

Your Essex features a Pioneer AM/FM/CD in-dash stereo. This stereo plays through separate speakers from the other audio – video equipment in your coach. This radio features up to 18 radio presets, a variety of tone controls, and a CD player. It is also XM satellite radio capable, and also controls the standard 6 CD changer.

To operate the stereo, press the "Source" button in the upper left hand corner of the radio face. Pressing the source button once turns the stereo on playing the last mode selected (AM, FM, CD, etc.). Use the "Source" button to alternate between music sources.

For detailed operating instructions on your Pioneer stereo, please refer to the manufacturer's information provided with your unit. XM satellite radio is available by contacting the XM provider directly. A monthly fee is involved to subscribe.

Nav-N-Go Navigation System

Your Essex may be equipped with a GPS based Navigation system. This system uses GPS technology to guide you through maps and information for traveling assistance. It features voice prompts, and touch screen technology to make scrolling through the menus and getting information incredibly easy.

To begin operation, simply turn on the system and follow the simple commands that appear on the screen. Detailed manufacturer's instructions are included with your Essex literature.

Buddy Screen Pass. Side Nav. Monitor (optional)

As an option for the Navigation system, a second monitor for the navigation system is available for the passenger side. This monitor is located under the front overhear cabinet, just inside the entrance door. It is mounted on a swiveling, tilting head so positioning it for maximum comfort is possible.

DC Power Point Receptacles

At the bottom of the center section of the dash is a pair of DC "Power Point" receptacles. These allow you to plug in a variety of 12 volt DC accessories, including cell phone battery chargers, camera battery chargers, and so on. These are fused at 20 amps.

Solar Panel Indicator

Your Essex is equipped with a solar panel which charges the **chassis** batteries when exposed to sunlight. On the dash is a red LED charge indicator to show when the system is charging the batteries.

It is important to note that the system may not indicate a charge any time it is exposed to sunlight. The built in "regulator" will only allow the system to charge the chassis batteries when their voltage is low. The system will charge at the following rate:

Battery Voltage	% of Battery Charge
12.7 VDC	100%
12.4 VDC	75%
12.2 VDC	50%
12.0 VDC	25%
11.9 VDC	0%

For example, if the chassis batteries are above 12.7 VDC the solar panel indicator will not glow to indicate the system is charging.

Transmission Shift Selector

The Allison Transmission control pad is located to the left of the driver on the switch panel. The shift selector allows you to shift the transmission into any one of six forward gears, or reverse. Additionally, it allows you to select an operating mode based on your particular driving style, or driving conditions.

When the transmission has reached normal operating temperature, (above 180◦) the transmission shift selector can be used to check the transmission fluid level. Press the up and down arrows simultaneously, and the display will either say “Trans OK”, or it will display a number. The number displayed is the amount of quarts that need to be added to the transmission.

Safety Precautions

⚠ WARNING

- Portable fuel-burning equipment, including wood and charcoal grills and stoves, shall not be used inside the recreational vehicle. The use of this equipment inside the recreational vehicle may cause fires and/or asphyxiation.
- Seats equipped with seat belts are the only ones to be used while the vehicle is in motion.
- While the vehicle is in motion, all seats should be locked in the forward facing position.
- Passengers should never be allowed to stand or kneel on seats in a moving vehicle.
- All passengers must have seat belts fastened in a low and snug position so that the force exerted by the belt in a collision will be spread across the hip area. Pregnant women should wear the lap-shoulder belt, with the lap belt portion worn low and snug.
- The fire extinguisher should be inspected monthly for proper charge and operating condition. The smoke alarm should also be tested on a regular basis. The label on the detector should be removed when preparing the unit for the first trip. In addition to the recommended inspection, these should also be checked prior to a vacation or extended trip.
- Sleeping facilities are not to be used while the vehicle is in motion.
- Become familiar with the operation of the escape window, but use this window strictly as an emergency exit.

Occupant Restraints

One of the most important safety features in your vehicle is the restraint system. Research has shown that seat belts save lives. And they can reduce the seriousness of injuries in a collision. Some of the worst injuries happen when people are thrown from the vehicle.

EVERYONE IN A MOTOR VEHICLE NEEDS TO BE BUCKLED UP ALL THE TIME.

⚠ WARNING

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.

Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
BE SURE EVERYONE IN YOUR VEHICLE IS IN A SEAT AND USING A SET BELT PROPERLY.

Please pay close attention to the information in this section. It tells you how to use your restraint system properly.

If you wear your safety belt improperly, both the effectiveness and comfort will decrease.

- Do not allow the buckle to be located in the stomach or abdomen area.
- Do not wear the shoulder strap under your arm or behind your back.
- Do not wear the shoulder belt too snug, or let it rub against your neck.
- Do not allow the belts to become too loose as you travel. If the lap and/or shoulder belts are too loose, they may not be able to hold you in place during a crash.
- Do wear the lap belt low on the hips, two to four inches below the waist, and against the thighs. The strong bones of the hips can absorb the forces experienced in a crash.
- Do wear the shoulder strap across the center of the chest and the center of the shoulder.

Lap/Shoulder Belt Operating Instructions

1. Enter the vehicle and close the door. Sit back and adjust the seat.
2. The latch plate of the belt is above the back of your seat. Grasp the latch plate and pull out the belt. Slide the latch plate up the webbing as far as necessary to make the belt go around your lap.
3. When the belt is long enough to fit, insert the latch plate into the buckle until you hear a "click."
4. Position the lap belt across your thigh, below your abdomen. If you need the lap portion tighter, pull up a bit on the shoulder part. A snug belt reduces the risk of sliding under the belt in a collision. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.
5. To release the belt, push the release button on the buckle.

Adjustable Upper Shoulder Belt Anchorage

Some shoulder belts can be adjusted upward or downward to help position the belt away from your neck. Push on the anchorage cover to release the anchorage, and then move it up or down to the position that serves you best.

Child Restraint

Everyone in your vehicle needs to be buckled up all the time. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

There are different sizes and types of restraints for children from newborn size to the child almost large enough for the adult seat belt. Use the restraint that is correct for your child:

- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for this, too.
- Carefully follow the instructions that come with the restraint. If you install the restraint improperly it may not work when you need it
- Buckle the child into the restraint exactly as the manufacturer's instructions tell you.

MAINTAIN YOUR RESTRAINT SYSTEM

Periodically examine your restraint equipment to be sure it functions correctly and to be sure there are no worn or broken components that either needs repair or replacement. Damaged parts must be replaced immediately. Do not disassemble or modify the system.

Restraint equipment must be replaced after an accident if they have been damaged. If there is any question regarding belt or retractor condition, replace the belt.

It is a good idea to have your restraint system inspected during each periodic scheduled maintenance session.

 WARNING

A frayed or torn belt could rip apart in a collision and leave you with no protection. Inspect the belt system periodically, checking for cuts, frays, or loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system. Seat belt assemblies must be replaced after an accident if they have been damaged (bent retractor, torn webbing, etc.)

Safety Belt Maintenance

If the belts need cleaning, use a mild soap solution or lukewarm water. Do not remove the belts from the vehicle to wash them.

 WARNING

Do not bleach, dye or clean the belts with chemical solvents or abrasive cleaners. This may severely weaken the fabric. In a crash, they might not be able to provide adequate protection.

PROPANE GAS & FUEL

WARNING

Propane cylinders shall not be placed or stored inside the vehicle. Propane cylinders are equipped with safety devices that relieve excessive pressure by discharging propane to the atmosphere. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING. Cooking appliances need fresh air for safe operation.
Before operation:
(1) Open overhead vent or turn on exhaust fan
(2) Open window
(3) Open overhead vent or turn on exhaust fan
(4) Open window
FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.
Unlike homes, the amount of oxygen supply is limited due to the size of the recreation vehicle, and proper ventilation when using the cooking appliance(s) avoids dangers of asphyxiation. It is especially important that cooking appliances not be used for comfort heating, as the danger of asphyxiation is greater when the appliance is used for long periods of time.

WARNING

DO NOT FILL PROPANE CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY. Overfilling the propane container can result in uncontrolled propane flow, which can cause fire or explosion. A properly filled container contains approximately 80 percent of its volume as liquid propane. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

Portable fuel-burning equipment, including wood and charcoal grills and stoves, shall not be used inside the recreational vehicle. The use of this equipment inside the recreational vehicle can cause fire or asphyxiation. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

DO NOT BRING OR STORE PROPANE CYLINDERS, GASOLINE, OR OTHER FLAMMABLE LIQUIDS INSIDE THE VEHICLE. FAILURE TO COMPLY COULD RESULT IN FIRE OR EXPLOSION

DANGER

IF YOU SMELL PROPANE:
(1) Extinguish any open flames, pilot lights, and all smoking materials
(2) Do not touch electrical switches
(3) Shut off the propane supply at the container valve(s) or propane supply connection
(4) Open doors and other ventilating openings
(5) Leave the area until odor clears
(6) Have the propane system checked and leakage source corrected before using again
FAILURE TO COMPLY COULD RESULT IN EXPLOSION RESULTING IN DEATH OR SERIOUS INJURY.

CAUTION

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

WARNING

- Propane gas containers, gasoline or other flammable liquids shall not be placed or stored inside the vehicle because fire or explosion may result. Propane gas containers are equipped with safety valves that relieve excessive pressure by discharging gas into the atmosphere.
- While refilling the fuel or Propane tank, the engine must be off, all pilot lights must be extinguished, and appliances turned off. The vehicle should be as level as possible, and the service valve should be turned off. Smoking is also prohibited at this time.
- Exhaust gases contain carbon monoxide (an odorless, colorless, and poisonous gas).
- These gases are produced by burned gasoline, diesel, or Propane gas. Items such as the range, furnace, water heater, refrigerator, chassis engine, or generator engine can produce these gases. These fumes should not be inhaled. Inhaling carbon monoxide may produce headaches, dizziness, nausea, or even death.
- An open flame is never to be used to test for Propane gas leaks.
- All protective covers and caps must be replaced after filling the Propane system.
- Once the valve is closed, securely latch the Propane door.
- Propane gas and natural gas are not interchangeable. Never connect natural gas to the Propane gas system.
- The use of equipment such as wood and charcoal grills and stoves inside this recreational vehicle may cause fires or asphyxiation.

Propane Gas System General Information

A warning label has been placed near the Propane gas container. This label reads:

WARNING: DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY. Overfilling the Propane 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 Propane gas.

The Propane gas system components in your unit have been approved for use in camping vehicles by a nationally recognized testing laboratory. Propane gas is a clean-burning dependable fuel when properly handled. The Propane gas tank mounted on your unit contains liquid propane gas under high pressure. The liquid gas vaporizes as the fuel is used and passes through the tank valve to a regulator that automatically reduces the pressure.

The low-pressure gas is then distributed to the appliances through the pipe manifold system. Appliance lighting problems are commonly caused by an improperly adjusted gas regulator. Never attempt to reset the regulator yourself. Have an authorized service technician make any necessary adjustments. We recommend that you have the Propane gas system checked by an authorized service technician at least once a year and after every extended trip. Although the manufacturer and dealer carefully test for leakage, travel vibrations could loosen fittings. Leaks can be easily found by applying leak detector solution at the connections. If leak detector solution is not available, a soapy water solution made with dish soap can be used. Tightening the fitting usually stops any leaks. If this does not work, shut off the main gas valve at the tank and immediately consult an authorized service technician for repairs. If a leak is suspected, the identifying odor smells similar to rotten eggs (sulfur). Never test for a leak by lighting a match or having an open flame where you suspect leaking gas.

⚠ WARNING

Shut off the main gas valve at the tank when the camping vehicle is not in use. Also, shut off the valve when refueling to avoid potential danger from pilot lights igniting fuel fumes. Some appliances, such as the refrigerator, have DSI (direct spark ignition) boards, so it is important that you turn the appliances off when the Propane gas is off. The ignition in the appliances will continue to spark even if there is no Propane gas available.

Propane Regulator

The regulator acts as the heart for the Propane gas system. The Propane gas in the tank is under high pressure. The regulator reduces the pressure of this gas so that it is safe to use with the various appliances in your unit. If corrosion is noticed, contact a qualified Propane gas service technician. Do not adjust the regulator. It is factory preset. Adjustments are to be made by a qualified Propane service technician using specialized equipment.

Propane gas regulators must always be installed with the diaphragm vent facing downward. Regulators that are not in compartments have been equipped with a protective cover.

Make sure that the regulator vent faces downward and that the cover is kept in place to minimize the vent blockage that could result in excessive gas pressure causing fire or explosion.

Propane Distribution Lines

The primary manifold is a black steel pipe running the length of your unit. Most secondary lines leading to gas appliances are made of copper tubing with flare fittings. If any of the gas lines rupture, do not attempt to splice them. Always run a new line. We recommend gas distribution work be performed by an authorized service technician. The main valve at the Propane tank must be closed when removing or servicing any gas appliance.

This will prevent dangerous gas leakage that could result in an explosion and possibly serious injury. If a leak is suspected, have the systems inspected and repaired by a qualified service technician.

Precautions & Recommendations

- Inspect the Propane fill valve for foreign materials before refueling.
- Shut the pilot lights off prior to refueling Propane gas tanks.
- Never check for gas leaks with an open flame (match, etc.).
- Gas lines should be visually inspected periodically.
- Have the gas system inspected yearly and before and after extended trips.
- The gas system should be inspected and repaired by qualified technicians only.

⚠ WARNING

The Propane system in your recreational vehicle is designed for liquefied petroleum gas only. Never attempt to connect natural gas or butane gas in this system.

Fire Safety

The possibility of fire exists in all areas of life, and the recreational life-style is no exception. Recreational vehicles are complex machines. They are made up of many materials, some of which are flammable. Like most hazards, the possibility of fire can be minimized, if not totally eliminated. This is done by recognizing the danger and practicing common sense safety and maintenance habits. For safety reasons, your unit is furnished with both a fire extinguisher and a smoke alarm.

Fire Extinguisher

The fire extinguisher is rated for Class B (grease, gasoline, diesel fuel, flammable liquids) and Class C (electrical) fires. These are the most common types of fires in vehicles. Read the operator's manual and the instructions on the fire extinguisher. Be sure to know how and when to use the extinguisher and where it is located.

Fire extinguishers are mechanical, pressurized devices. Care must be exercised when they are handled. They must be maintained as the operator's manual instructs for proper and safe operation. The extinguisher should be inspected at least once a month.

More frequent inspections may be required if the extinguisher is exposed to the weather or to possible tampering. Do not test the extinguisher by partially discharging. Doing this will cause a loss of pressure.

If a fire occurs in the vehicle, evacuate the vehicle as quickly and as safely as possible. Consider the cause and the severity of the fire and the risk involved before trying to extinguish it. If the fire is major or fuel fed, move away from and stand clear of the vehicle and wait for emergency assistance to arrive.

IMPORTANT

NEVER spray any type of aerosol or cleaner directly onto or into the Propane, CO, and Smoke detectors. Spraying any type of material into the opening on any of these detectors can render them useless, and would not be covered by the manufacturer's warranty.

Propane Detector

Propane gas is an extremely flammable substance. The Propane detector in your coach is located in the main living area close to the floor. It is wired to the 12 volt "house' electrical system in your unit. On the face of the detector are operating instructions and a test button. The Propane detector should be tested before every trip, and any time the unit is pulled out of storage.

In the event the detector alarms while in use, immediately turn off all potential sources of ignition (furnace, water heater, refrigerator, stove / range, etc.), and close the Propane valve to shut off the flow of Propane gas. Open the windows and doors to facilitate ventilation of the unit, and evacuate the unit until the Propane gas has dissipated. Have the Propane system checked for leaks by a qualified RV technician.

CO Detector

Carbon Monoxide is a colorless, odorless gas that is manufactured during the burning of fossil fuels. The CO detector is located on the ceiling of your unit. It is operated with a 9 volt DC battery and alarms any time carbon monoxide levels beyond the normal range are detected. It should be tested before every trip, and any time the coach has been in storage. If the alarms sounds, open windows and vents to allow any carbon monoxide that has built up to dissipate, and evacuate the vehicle until the alarm has stopped. The CO detector can be cleaned by vacuuming the openings in the side of the case.

Smoke Detector

The battery powered smoke detector is mounted on the ceiling in the living area of the unit. Read the operating instructions for details on the testing and care for this important safety device. Test the smoke detector after the unit has been in storage, before each trip, and at least once a week during use.

The detector should never be disabled because of nuisance or false alarm from cooking smoke or a dusty furnace. Ventilate the unit with fresh air and the alarm will shut off.

Never disconnect or remove the battery from the smoke alarm. The battery should be replaced once a year or when the low battery signal sounds.

Emergency Exit Window

In the bedroom of you unit, there is an emergency exit (egress) window. This window is designed to be used as an additional exit in emergency situations. It can be easily identified by the red color of the handle and the red "EXIT" label. To open the egress window, lift the handle and push outward on the window. The window can be closed by pulling the window closed and lowering the handle to the down or locked position.

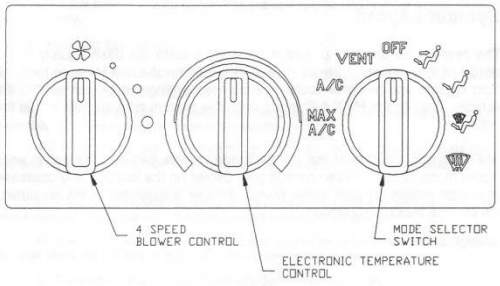
Chapter 3

DASH HVAC, APPLIANCES & ACCESSORIES

DASH HVAC

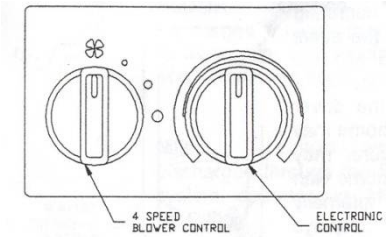
Dual Zone HVAC Dash HVAC System

For maximum driver and passenger comfort, the Essex features a "dual zone" dash HVAC system that allows driver and passenger to adjust their individual areas to their own comfort level.



The Main Control Panel enables the driver to control the volume (speed) and temperature of the air for the driver's side of the unit, and the air discharge from the system for both occupants.

The Passenger Control Panel enables the passenger to the temperature and volume (speed) of the air being discharged to the passenger side of the vehicle.



DUAL TEMP/BLOWER CONTROL

APPLIANCES AND ACCESSORIES

Generator

WARNING

All internal combustion engines give off carbon monoxide as a byproduct of their exhaust. Carbon monoxide is a colorless, odorless gas that is lethal. Symptoms of carbon monoxide poisoning are:

Dizziness	Headache
Nausea	Weakness or sleepiness
Vomiting	Inability to think coherently

IF YOU EXPERIENCE ANY OF THESE SYMPTOMS, GET TO FRESH AIR IMMEDIATELY. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION RIGHT AWAY. Shut down the Genset and do not operate it again until it has been inspected and repaired. ALWAYS MAKE SURE THE CARBON MONOXIDE DETECTOR IN YOUR UNIT IS OPERATING.

Your unit is equipped with an Onan generator. Please refer to the operating manual that was supplied with your particular unit for detailed directions on your particular Genset.

Before starting your Genset for the first time each day, and subsequently after each 8 hour cycle of running, the generator manufacturers recommend you perform the following “quick checks” to make sure it is ready to be used.

1. Make sure the CO detectors in your unit are working.
2. Check for signs of fuel or exhaust leaks.
3. Make sure there is adequate clearance around the Genset for proper ventilation, and to make sure sloping ground or other terrestrial interference has not occurred. Tall grass or other items that come in contact with the Genset may interfere with ventilation or be combustible and cause a fire.
4. Check the oil and coolant levels; inspect for leaks.
5. Check the battery connections to make sure they are tight and clear of corrosion.
6. Inspect Genset compartment for road debris or damage that might affect Genset performance or safety.
7. Turn off major appliances (such as air conditioners, TV’s, and other electronics that may excessively load the Genset or may be sensitive to initial voltage surges as the Genset stabilizes it’s voltage).

The generator can be started from the rocker switch on the dash, from the remote start switch on the generator itself, or from a third switch located by the bed in the bedroom. To start the Genset, rock the switch to the “start” position. Depending on the ambient temperatures, the generator may “pre-heat” prior to cranking. This pre-heat condition is noted by flashing the light on the generator start switch until the cycle is complete (up to 15 seconds). Once it has pre heated sufficiently, the starter will engage and the engine will start. Release the switch once the Genset starts.

IMPORTANT

Excessive cranking can damage the starter motor. Do not crank the generator more than 30 seconds at a time, and allow at least 2 minutes before trying again if the attempt to start fails.

To stop the generator, press the rocker switch to the “stop” side.

WARNING

It is CRITICAL that the AGS system be turned off any time the generator is going to be serviced. Failure to deactivate the AGS system may result in damage, injury, or death if the Genset should start unexpectedly. Also, if the AGS system is set and the generator is turned off at any switch, it will clear the AGS settings.

Dishwasher (optional)

Your Essex may be equipped with an optional "Dish Drawer" dishwasher. This appliance is mounted in the kitchen cabinetry below the range, and features a wood paneled front to blend in with the décor.

The dishwasher operates on 110 volts AC. For detailed directions on loading dishes, adding soap and cleaning agents, and total operation, refer to the manufacturer's directions and video. As with any appliance, maintenance is the key to keeping your dishwasher in top working order. Detailed instructions for cleaning and maintenance and included in the manufacturers owner's manual and accompanying video.

IMPORTANT

It is critical that the dishwasher drawer be locked into place any time the unit is in transit. If it is not, it can extend suddenly and without warning, potentially damaging the dishwasher, its contents, the cabinetry, and anyone standing near it. Before traveling, lock the dishwasher drawer in the closed position, and turn the breaker off to the appliance in the 110 breaker panel to insure the lock does not release until desired. The lock will release when power is restored.

Washer / Dryer (optional)

Your Essex may be equipped with an optional combination washer / dryer. Depending on your floorplan, your coach may be equipped with separate, stackable washer and dryer units. The washer / dryer will be located in a cabinet either in the bathroom or bedroom of your unit.

For detailed instruction on operating the washer / dryer, refer to the manufacturer's information that is supplied in your literature bag. This literature provides detailed direction on operation, care, and maintenance of your new appliance.

Norcold Side by Side Refrigerator (optional)

The Norcold Side by Side Refrigerator w/ Water Dispenser and Ice Maker built in is an optional refrigerator in the Essex. This refrigerator offers the convenience of water and access on the freezer door.

The control panel for the refrigerator is located on the front of the appliance between the right side freezer and refrigerator doors. It features a digital display that allows you to select the incoming power source (AC current or Propane gas), and allows thermostatic control of the operating temperature. If your unit is equipped with the "All Electric" option, the accompanying Norcold refrigerator will only offer AC current as the power source.

For detailed operating instructions, please refer to the Norcold Operators Manual that was supplied in the literature bag of your Essex.

Norcold Freezer (optional)

As a factory installed option, Newmar offers a basement mounted Norcold freezer. This freezer operates on 12 volt DC current, or 110 AC current as available. The side mounted thermostat can be used to adjust the freezer cabinet to the desired temperature. Latches secure the lid for a tight seal, and for traveling. For ease of access, the freezer is mounted on a slide tray.

Princess Recessed Cook Top

Your Essex features a Princess two burner Propane cook top as standard equipment. It features electronic spark ignition. To use the cook top, simply press down and turn the burner control to the desired setting, and the electronic ignition will spark to create a flame. The burner controls will vary the flame to your cooking requirements. Complete operating directions are included with the user's manual in the Literature Bag provided with your coach.

Princess Electric Cook Top (optional)

If your Essex is equipped with the "All Electric" option, it will feature the Princess Electric Cook Top in lieu of the standard Propane cook top. Complete operating directions are included with the user's manual in the Literature Bag provided with your coach.

To operate the electric range, press and turn a burner control. The associated burner will heat proportionally to the range the burner is turned.

GE Microwave / Convection Oven

Standard in your Essex is a GE Profile Microwave / Convection oven. It boasts a number of standard features that will make cooking quick and convenient.

To set the clock on the GE Profile Microwave Convection oven, press the "Clock" button on the control panel. Using the rotary knob in the center of the control panel, rotate it first to set the correct hour. Once the correct hour is displayed, press the knob to lock your selection in. Repeat the procedure to set the correct minutes, and again press the knob in to lock the minutes into the display. Using the same knob, select AM or PM on the display and press the knob again to lock the setting in. If the time displayed is correct, press the knob one final time to initiate operation of the clock.

Refer to the GE Profile Microwave / Convection Oven Operators Manual for advanced cooking procedures and additional features of your oven.

GE Advantium Microwave / Convection Oven (optional)

The GE "Advantium" microwave / convection oven is an available option in your new Essex. Using GE's "SpeedCooking" technology, it boasts amazingly fast food preparation times. It uses a combination of lights, microwaves, and convection heat to cook entire meals in a fraction of the time it takes in a conventional oven, even browning meats as the cooking process progresses.

For detailed operating and programming directions please refer to the GE Advantium Microwave / Convection Oven Operators Guide, or the CD ROM that was included with your Owners Packet.

Hydraulic Leveling Jacks

⚠ WARNING

It is recommended that the leveling and stabilizing procedure is complete before operating any room extension. Note: The slide out can be operated without utilizing the leveling system, but it is recommended to have the unit as level as possible.

Your Essex is equipped with a combination of air and hydraulic leveling jacks. There are four hydraulic jacks, and they always operate in pairs: front, right side, left side, and rear. Before extending, the engine must be off, the ignition switch must be in the "ACC" position, and the transmission must be in park. The parking brake needs to be set and the tires blocked securely.

IMPORTANT

It is recommended that you read the detailed operating directions in the "HWH Operators Guide" prior to operating the leveling systems on your new Essex). The Operators Guide was provided in the literature bags with your unit at the time of delivery.

WARNING

Be sure the ground on which you are parked will support the weight of your unit. Often material that seems "safe" to level on will not support the weight when pressed on at the leveling jack points. Use caution when leveling on hot asphalt, sand, and grass as the weight of the unit may cause the jacks to sink into the ground. Pads may need to be placed under the jacks to spread the weight over a larger area. ALWAYS look under your unit prior to leveling to make sure the jacks are clear of debris and other foreign materials that may interfere with leveling.

"Air" Leveling

The "Air" leveling system is designed to be used for minor, temporary leveling of the unit (when overnight camping in a parking lot, for example) for basic comfort and convenience. Please note that while this will bring the unit to a "relatively" level stance while on slightly sloped surfaces, it does not deploy the hydraulic leveling jacks to raise the unit significantly or stabilize the unit on the ground. As a result, you may still experience some movement of the coach when walking through it.

"Hydraulic" Leveling

The hydraulic portion of the leveling system uses four hydraulic jacks to level the unit. Because the weight of the unit is on the jacks, and they are in physical contact with the ground, the unit is much more stable and does not shake or move when walking inside it. Additionally, the hydraulic system has a greater range of leveling, allowing it to provide greater leveling capability should you encounter camp sites with substantial slope.

1. Make sure the motorhome is securely parked, and the set the parking brake.
2. With the ignition key in the "ACC" position, press the "LEVEL" button. The light will come on and glow steadily.
3. Once you are certain the leveling area beneath the unit is clear of obstructions, press the "LEVEL" button a second time to begin the automatic hydraulic leveling process. The light will begin flashing and the leveling cycle will begin. The system will dump the air out of the air bags and deploy the jacks to level the unit.
4. To retract the jacks, start the engine and press the "STORE" button. Allow the system to completely raise the jacks and turn itself off.

CAUTION

Do not lift the wheels off the ground when leveling. The unit can roll forward or backward when tires are lifted off the ground. If the “Excess Slope” light is on, the system is sensing that the site is too sloped to allow the leveling jacks to bring the unit to a comfortable state of level. Great care must be taken when trying to level in a sloped site to make sure a tire (or tires) is not lifted off the ground. Also, the leveling jacks and support system should be cycled once a month or whenever the vehicle is used to keep the system in operating condition.

IMPORTANT

It is important to allow the HWH leveling system to run the complete cycle and turn itself off when operating in the “store” mode. The system will completely retract the jacks and turn itself off. If the system is turned off prior to the automatic shut off, there is the potential that the jacks have not fully retracted. Also, be sure to visually inspect the jacks prior to departure to insure that they have fully retracted and the underside of your unit is ready for travel.

Security System (optional)

Your Essex may be equipped with an optional security system. This system uses a variety of sensors and switches to guard your unit and its contents. When armed, the system protects the entry door, the battery compartment, and the front generator area. There is also an impact sensor under-dash that will feel an impact in the front cab area. There are (2) motion sensors, one in the kitchen, and one in the bedroom. These sensors can be defeated if you want to arm your system while the coach is occupied. The switch is located on a labeled plate in the cab area, along with the valet switch. Consult your manual for all features of the valet switch. To arm the system, press the button w/ the lock symbol on it. You will hear one siren chirp, and the entry door will lock (if equipped). To disarm the system, press the button w/ the un-lock symbol. You should hear two siren chirps. If you hear more than two, your system was set off in your absence. The system also includes a pager that alerts you up to 2 miles away if the alarm is engaged. You can also remote page via the pager buttons on the dash.

Teaching Keypad New Authority / Access Codes

The following procedure assigns an authority and access code. The 5-digit access code is assigned to position one. The same 5-digit code is assigned to the authority and access codes. If the attempt to assign new codes fails, previous authority and access codes remain active.

1. Plug the LED into C6 and push the button into C7 on the receiver.
2. Turn the ignition on (12v at yellow wire C1) and disarm alarm
3. Press and release the programming button 3 times. Wait 3 seconds. The keypad will beep for 5 seconds.
4. Enter a 5-digit code. (Double chirps after each button press). The keypad chirps 3 times after the 5-digit entry.
5. Re-enter new code for confirmation. The keypad will chirp four times after successful confirmation. Along beep indicates failure to change codes.
6. Confirm the new access code.

The user is given 2 minutes to complete this procedure. If it isn't completed in time, or any error is made, the system will exit learn mode and a long chirp will sound to indicate the error.

Important: Authority and access codes should not be the same. If someone figures out an access code and discovers it to be an authority code as well, the can create the their own access code and gain entrance to your vehicle.

The following area can be used to document the authority code:

DIGIT 1	DIGIT 2	DIGIT 3	DIGIT 4	DIGIT 5

Assign new access codes

With a valid authority code, an access code can be programmed with the following instructions.

1. Press the (3) button for 5 seconds, the keypad will beep. The backlighting of the keypad will flash indicating the learn mode.
2. Enter the 5-digit authority code. Keypad will provide a long beep that will stop after you have defined an access number.
3. Press and release the button that corresponds to the access number. For example, press(1/2) (1) button for access #1 and press (3/4) (2) button for access #2. During this activity you are defining 1 of 5 (4) access numbers. A subsequent code will be assigned to this access #. The keypad will provide confirmation beep after this single button press.
4. Enter your new 5-digit access code. The keypad will provide confirmation beeps.
5. Re-enter new access code. The keypad will provide confirmation beeps.

Repeat process to assign additional access codes.

Note: Up to 5 (4) different access codes can be assigned at one time. As additional access codes are defined, pre-existing access codes are overwritten. For example, if a new access code is assigned for access #3 code is no longer available.

Chapter 4

CABINETS, FURNITURE & INTERIOR FEATURES

CABINETS

The cabinets in this unit are constructed on site at the Newmar production facility. Hardwood raised panel cabinet doors are standard throughout the unit. A variety of finishes are available for the hardwood cabinetry. All of the finishes are as durable as they are beautiful.

For all their durability, however, the nature of hard woods is that they can (and frequently do) change color, or darken when exposed to sunlight. Because of this, it is important that the window shades be down during long periods of storage. Changing “shades” of color, or discoloration from exposure to sunlight is not a warrantable repair as it is the nature of the hardwood products used in your Essex.

Storage is an important factor to all RV owners. Keeping this in mind, the cabinetry is structured to provide as much storage as possible. Your unit may include features such as adjustable pull out pantry boxes in the kitchen or the silverware drawer may have a molded silverware divider tray for added storage. In the bedroom, the bed platform lifts to provide an additional, convenient storage area. Once the bed platform is lifted, it is held open by pressurized struts to allow hands-free access.

A countertop with a color coordinated edge is installed in the kitchen. To clean, wipe with a damp cloth and for “dried on” spots or rings, wipe with a damp cloth and a mild liquid soap. Strong chemicals and solvents may damage the surface and should be wiped up immediately, then rinse the surface with water.

Avoid cutting directly on the countertop surface, avoid excessive heat, and keep harmful chemicals away to avoid countertop surface damage.

Metal drawer guides may be equipped on all of the drawers in your unit. These guides provide a smooth opening and closing of the drawers. To open a drawer, lift up slightly and pull open. The way this mechanism works will prevent the drawers from unintended opening while traveling.

All of the cabinetry can be easily cleaned with any commercial furniture cleaner or polish. As with any wood product, do not saturate these cabinets with water or any other liquid. Be sure to wipe up spills as they occur to avoid staining.

FURNITURE

Kitchen / Dinette Area

Depending on the floorplan of your unit, a built-in “booth” style dinette may be installed or a hidden leaf dinette table. This table allows you to add more room to your table top when desired. Two fixed chairs and two folding chairs accompany this table. The chair seats are designed with a coordinating upholstery fabric to match your décor.

Living Room Furniture

Covered in coordinating fabrics and accented with pillows, the sofa will fold flat to provide additional sleeping space. To fold the sofa out to the sleeping position, lift and pull on the front of the sofa seat cushion. The seat cushions will swing out and the seat back will slide down to form the sleeping surface.

Depending on the floorplan and options, a variety of living room furniture is available in the Essex. Options may include a free standing leather/vinyl recliner, a leather/vinyl push back recliner with an ottoman, a leather/vinyl swivel rocker recliner, or a leather/vinyl "L"-lounge.

The driver and passenger seats in the Essex are covered in leather, and feature six-way power position adjustment, lumbar support, and a passenger footrest. The base moves the chairs forward and backward, as well as up, down, and forward and reverse tilt. The seats also have a three point seat belt and swivel and recline features. When the unit is not in motion, they can be swiveled to face the living room of the unit. To turn the chairs, first extend the slide out room. Tilt the steering wheel up and toward the dash. Reposition the seat to provide enough clearance for the steering wheel. Once this is done, the chairs will swivel without interference. The power lumbar control switch is located on the left-hand side in front of the power base controls. Pushing the switch forward will inflate the support while pushing back will deflate it.

INTERIOR FEATURES

Bedspread

A decor matching Duvet with coordinated pillow shams and an accent pillows are part of the standard package for this unit. The recommended cleaning instructions for this spread are DRY CLEANED ONLY. The materials that make up the spread may have been treated, and dry cleaning will preserve this treatment.

Flooring

The floor covering throughout the living room and bedroom of the unit is nylon tufted cut loop carpeting. In the Owner's Information Package you will find literature supplied by the carpet manufacturer. This information will be helpful in maintaining and extending the life of the carpet. Please refer to this information for the carpet or hard surface flooring care and cleaning instructions. Simple vacuuming is all that is necessary to remove loose dirt and debris for everyday cleaning. Mop occasionally, using a minimal amount of water. Abrasive cleansers and scouring pads can scratch and damage the surface also.

Ceiling

The ceiling in this unit is covered with a padded vinyl ceiling headliner. It is cleaned by wiping gently with a soft cloth and a mild detergent. **DO NOT** saturate the material, and wipe it dry when finished cleaning with a soft, dry cloth.

Window Treatment

The window treatment throughout this unit, except in the kitchen, is pleated day/night window shades and lambrequins. These shades have two sections.

The first section visible when closing the shade is the “DAY” section. This material is translucent. Sunlight passes easily through the material into the unit. The second visible section is the “NIGHT” section. This material is a heavier, more opaque material.

Very little to no light passes through it. It is generally used in the evening or when more privacy is desired, though under certain light conditions, it can cast shadows and silhouettes. If any curtains are installed in this unit, cleaning instructions are DRY CLEAN ONLY. Water-based products are not recommended for cleaning fabrics. Water-based products may cause excessive shrinkage or fading.

Safe

Located under the bed base is a built in fire resistant “safe box / file cabinet”. This is accessed by raising the bed base / mattress platform. The key for the lock is included with your unit at the time of delivery.

Chapter 5

SLIDE OUT FEATURES

WARNING

Read the following slide out room instructions before activating the switch.
Do not allow children to operate the slide out.
Do not allow any person to place their arms, legs, body or head between any pinch point of the lock arms, slide out fascia, interior walls, exterior walls, objects, or floor as serious injury or death could result.
Any adjustments, or repairs, must be made only by "NEWMAR" qualified personnel.
Always check the interior and exterior of the coach for objects, or persons, that are in the path of the slide out when extending or retracting the room.
Always check the roof to be sure any objects, or debris, are removed before retracting the room.

CAUTION

It is recommended that the leveling jacks be extended and the unit level before operating the slide out. Note: This slide out can be operated without utilizing the leveling system, but is recommended to have the unit as level as possible.

Your unit is equipped with at least one power slide out room. It is important that you read and understand **ALL** directions, both in this Owners Guide, and on **ALL** the labels affixed inside your unit **PRIOR** to operating your slide out room(s).

Your unit will contain labels with very specific operating and safety information. There are a number of precautions that **MUST** be observed every time the rooms will either be extended or retracted. For your personal safety, and to prevent potential damage to the slide out mechanism and room, it is paramount that these directions be followed completely. Slide out operation has changed for all RV's after 2006, and it is important that you understand the operation procedure completely and observe all safety precautions to insure safe, proper operation.

All Slide Out labels contain the following warning:

WARNING

Do not allow children to operate the slide out.
Do not allow any person to place their arms, legs, body or head between any pinch point of the lock arms, slide out fascia, interior walls, exterior walls, objects, or floor as serious injury or death could result.
Any adjustments, or repairs, must be made only by "NEWMAR" qualified personnel.
Always check the interior and exterior of the coach for objects, or persons, that are in the path of the slide out when extending or retracting the room.
Always check the roof to be sure any objects, or debris, are removed before retracting the room.

General Instructions

IMPORTANT

The slide out room should be inspected for alignment every six (6) months. If alignment is necessary, have the room adjusted.

IMPORTANT

The slide out room can be stopped at any time by releasing the slide out switch. If the slide out room stops before reaching the full "OUT" or "IN" position, the slide out controller may need adjustment. To adjust the slide out controller, turn the adjustment screw clockwise to increase the power and counter-clockwise to decrease the power. Move the adjustment screw in small increments. Try moving the slide out room again. Use caution. There is a potential for component or structural damage if the screw is adjusted too high. This screw does not adjust the slide out room speed. It sets the amount of power required to move the room against the mechanical stops.

Operating the Slide Out Room

Your unit is equipped with Power Locking Arms for the slide out rooms. Designed specifically for this application, these mechanisms automatically "lock" the slide out rooms to the sidewalls of the RV when the room is fully retracted, securing the room in place and providing a positive seal. The operation of the locking mechanism is totally automatic, and begins when you press the button to extend or retract the slide out room.

WARNING

Before extending the slide out, make certain that there is a minimum of five (5) feet of clear space on the slide outside of the unit. Prior to extending the room, be sure to unlock the slide out locking arms. Make sure there are no obstructions either inside or outside the unit that may interfere with the slide out extension. Tree branches, bushes or telephone poles can cause extensive damage to the exterior of the unit.

To extend the room, make certain the coach is plugged into shore power or is under generator power, then press and hold the slide out button. The power lock arms will retract into their housings, and the room will begin to extend approximately 10 seconds after the voice begins. It will continue to run until it reaches the end of its travel, or until you release the slide out switch.

To retract the room, press the slide out button as described above, holding it for the duration of room travel. The room will retract, and at the end of its travel the slide out motor will stop, and the Power Locking Arms will deploy, securing the room to the sidewall of the unit. Please note that you must hold the slide out button down during this entire cycle.

The power locks require a minimum of 9 volts DC to operate. In the event of a loss of power, or if the voltage dips below the minimum requirements, the locks will not extend or retract automatically.

For proper operation of the room and locks battery voltage must be maintained above the minimum requirements. Also please note that there is a safety “lock out” system incorporated in the slide out electronics that prevents the room from operating when the ignition key is “on”. The automatic locking arms require no maintenance, and should be serviced as necessary only by a qualified technician.

MANUAL EXTENSION AND RETRACTION

The slide out room may be manually retracted. Before attempting to manually extend or retract a slide out room, please contact your servicing dealer or call Newmar Customer Support at 1-800-731-8300.

IMPORTANT

It is important to clean the slide out rollers under the floor regularly as dirt may adhere to the rubber coating on these rollers and cause damage to hard surface flooring. Such damage is not covered under warranty. These rollers may leave indentations in carpeting, linoleum and other flooring. This condition is normal and does not warrant flooring replacement.

IMPORTANT

The TRANS-TORQUE bushing must be re-tightened to re-couple the slide out gear motor before moving the coach. This will hold the slide out room in place. The correct torque on the 11/2" TRANS-TORQUE bushing is 110 foot pounds maximum. The correct torque on the 11/2" TRANS-TORQUE bushing of the K-900 motor (center shaft motor) is 145 foot pounds maximum.
Slide outs with either the center or end mounted motors can be moved by pushing the room the full length of its travel in either direction. This method will require the assistance of at least two people.

Chapter 6
EXTERIOR FEATURES

Hitch

Installed on your Essex is a class five, 15,000 pound car towing hitch. This is installed for towing passenger cars to be used when the vehicle is parked. The wire connector installed with this hitch is a standard seven-pin connector.

IMPORTANT

Prior to towing, inspect all towing connections, including hitch mounting bolts for unusual wear or corrosion, visually checking for deformation of the mounting flanges and cracked welds on the hitch itself or any other sign of movement or fatigue in the hitch assembly. Safe and satisfactory performance of the towing system depends in large part on the type of towing equipment connected to the hitch receiver. The assembled length of the drawbar/towing system used should be kept to a minimum. Newmar is not responsible for damage or failure of the hitch receiver caused by the use of excessively long drawbars or other styles of drawbars that create leverage loads on the hitch receiver beyond its designed capabilities.

Exterior Sides

The sides of this unit are constructed of gel-coated fiberglass. To add to this feature, the end caps are also gel-coated fiberglass. Clean the fiberglass material with a mild cleanser and warm water. Use only soft cloths. Using stiff bristle brushes may cause scratches in the fiberglass surface. Please note, Newmar is not responsible for weathering/oxidation of gel-coated surfaces. Lighted storage compartments are located on the exterior sides of your unit. These compartments provide additional space for your belongings while you are traveling.

Security Lights

Standard on this unit are exterior security lights. One is installed on each side of the coach. These lights help to light the side of the unit for added protection. The lights are activated by rocker switches located in the front overhead cabinet, labeled “Security Lights”.

Electric Steps

This unit may be equipped with electric double entrance door steps. If so, the switch to operate these steps may be located in an overhead cabinet above the entrance door. When the power switch for the steps is in the on position, simply open the door and the steps will open. Detailed operation for the electrical entrance door steps is as follows:

1. Turn the step power switch on.
2. Close the door. The step should retract and lock into the up position.
3. Open the door. The step should extend and lock into the down position.
4. Turn the step power switch off. The step should remain in the extended position when the door is closed. Turning off the power with the step retracted will hold the step in a retracted position as well.
5. With the step extended, turn the step power switch off and close the entrance door. Turn the vehicle ignition on. The ignition override system will go into effect, and the step will automatically retract.

CAUTION

If the door is opened and closed without allowing the step to fully extend and lock in the 'DOWN' position, the step will retract and lock in the 'UP' position. When the door is reopened, the step will not extend. The power switch must be turned on for the step to extend. This feature is only operative the first time that the door is opened after the vehicle ignition is turned off. When the ignition is on, the step will always activate with the door movement, regardless of the step power switch position.

CAUTION

If the vehicle is driven with the step in the extended position, there is the possibility of causing major damage to both the step and the vehicle.

6. Turn the vehicle ignition off and open the door. The step will extend and lock in the down position.

Mirrors

This vehicle is equipped with convex remote controlled defrosting exterior rear view mirrors. Always adjust the mirrors for maximum rear visibility prior to driving. Make sure the seat is positioned for proper vehicle control. These mirrors are adjusted by using the multiple directional switch located on the driver's side arm rest area forward of the cup holder. Select the mirror to be adjusted by pointing the arrow in the direction of that mirror. Move the control in the direction of movement desired to obtain the best view. The adjustment control moves the top half of both mirrors. The bottom half of the mirror is convex and is adjusted manually. These mirrors also contain heating elements to defog or de-ice the mirror glass during cold weather operation. The ON/OFF switch for this feature is located by the adjustment control. The convex exterior chrome mirrors with remote control and defrost are optional on this unit.

IMPORTANT

Objects viewed in convex mirrors appear smaller and farther away than they actually are.

Windows

The windows installed in this unit are radius torque style double pane tinted safety glass. These windows are also referred to as jalousie windows. They open with the simple turn of a crank. A power window is available on the driver's side as an option. Sun shades may be standard on the driver and passenger side windows. In the bedroom of the unit, one window will be marked "EXIT." This window is an emergency escape, or egress, window. To open in case of an emergency, lift the red handles at the bottom of the window and push out.

Vents

A 12 volt vent may be installed in the kitchen. This vent is equipped with a rain sensor on the roof hood. Anytime the vent is open and it senses rain, it will automatically close. The vent is controlled by the wall switch. Do not leave the fan in active mode while the unit is in storage or unattended for long periods of time. High winds or other unusual conditions or obstructions may prevent the vent from closing resulting in leakage, which could cause serious damage.

The vent installed in the bathroom is also powered by 12 volt electricity. This vent is identical similar to the one installed in the kitchen, and provides positive power ventilation to quickly clear the air in the bathroom area of your Essex. For improved lighting and headroom, a skylight is installed in the bathroom over the shower. The opening provides additional light during daylight hours, and the glass is tinted to provide privacy and reduce glare.

Doors

The front entrance door is equipped with a dead bolt lock for added security and a power flush stepwell cover. When the door is opened fully, the "posilock" feature will automatically hold the door open. To close the door from the open position, either the inside or outside handle must be released for the door to move. For your safety, a lighted, acrylic assist handle has been installed at the entrance door of the unit.

Awnings

IMPORTANT

It is important prior to extending your main awnings that you inspect the areas beside and around your unit where the awning will extend to insure proper clearance.

Side Awning

Two power side patio awnings are standard on your Essex. Extension and retraction is controlled by a switch located adjacent to the entry door, either on the wall or in a side overhead cabinet. To operate, follow these instructions:

Entry Door Awning

The entry door awning is a power operated awning. To extend the awning, press the "Extend" button on the switch plate. To retract it, press the "Retract" button.

Window Awnings

Also standard on this unit are the matching window awnings. They are operated as all the power awnings on your unit are. Use the appropriate switches to extend or retract the awnings as desired, and always check for clearance on the exterior of the unit to be certain nothing will interfere with their deployment.

Chapter 7

ELECTRICAL FEATURES

GENERAL INFORMATION

There are two electrical systems in your coach. They are the 12 volt DC system and the 110 volt AC system. Most standard appliances require 110 volt electricity while the majority of the lighting used in recreation vehicles is powered by 12 volt electricity. The power for the 12 volt system is supplied by the coach batteries, which are charged by the charge circuit in the inverter, or the engine alternator while in transit. The power for the 110 volt systems is supplied by the power cord when the unit is connected to an outside power source or by the generator. The inverter can also supply 110 volt power. It will transform 12 volt "DC" (Direct Current) electricity from the batteries into 110 volt AC ("Alternating Current") power for basic appliances and accessories.

CAUTION

Failure to turn off the 120 volt appliances when starting or stopping the generator may damage the transfer switch and/or electrical appliances.

WARNING

Use of "Adapter" cords with the RV shore power cord.

All Newmar units are manufactured with either a 30 or 50 amp electrical breaker box and electrical system. A unit with a shore power cord that has 3 prongs on it has 30 amp service; if the shore power cord has 4 prongs, it has 50 amp service.
To provide the correct amperage into the RV, and to assure the operation is as designed, it is important that they be plugged into the correct type of receptacle.

NEWMAR CORPORATION DOES NOT RECOMMEND USE OF "ADAPTER", "CHEATER", OR "DOG BONE" STYLE CONNECTORS THAT WILL MODIFY THE EXISTING SHORE POWER CORD TO A DIFFERENT STYLE OF OUTLET. USE OF THIS TYPE OF ADAPTER WILL GREATLY REDUCE THE AMOUNT OF AVAILABLE CURRENT IN THE UNIT, AS WELL AS CREATES THE POTENTIAL FOR ELECTRICAL FAILURE AND / OR FIRE. NEWMAR CORPORATION CANNOT ASSUME LIABILITY FOR FAILURES OCCURRING TO THE RV, ITS ELECTRICAL SYSTEM, OR ANY OF ITS COMPONENTS FROM THE USE OF ANY ELECTRICAL ADAPTER.

110 VOLT AC SYSTEM

The 110 volt AC system in your unit is designed to provide safe power for operating AC powered appliances and accessories in your unit. It is wired as a 50 amp, single phase system. Incoming power is supplied to your unit from one of three sources:

Shore Power Cord

The “shore power” cord supplies electricity to the coach via the connection at the campground post.

Generator

The generator supplies AC current to your coach when running. You generator is hard wired into the “Automatic Transfer Switch”, which routes power into the breaker box and beyond to the accessories it powers.

Inverter

The inverter is designed to invert DC power from the house batteries into AC to operate the applicable appliances and accessories. The inverter also has a charge circuit that will recharge the house batteries when AC is present from the shore power cord or generator.

Incoming AC Power

The incoming power from the generator or shore power cord is routed to the main breaker panel. The source is selected by way of an “Automatic Transfer Switch”. When 110 VAC is present on the incoming legs, the Automatic Transfer Switch will select that as the power source, and will switch automatically to it.

IMPORTANT

If power is supplied to the system by both the Genset and shore power cord, the automatic transfer switch will select the generator input by default. By prioritizing the generator circuit, power will always be available as long as the generator will run, regardless whether there is access to shore power. If the unit is plugged into a shore power outlet at a campground, and the generator is started, the automatic transfer switch will default to the generator circuit.

To connect the unit to 110 volt shore power, first make sure all of the breakers are in the off position. This is done to avoid a power surge. Unwind the power cord from the electrical compartment. The standard electrical service in this unit is 50 amps with a flexible cord. Check to make sure the pins in the outlet are oriented correctly, that they match the power cable, and that they are in good condition. If there is a circuit breaker switch at the plug, it should be turned OFF before making the connection. Insert the plug completely into the outlet and turn the circuit breaker on. Close and lock the electrical compartment door to keep the contents clean, dry, and secure. Close the cover on the power box, if equipped, to avoid an unintended disconnection and to keep contents clean. Switch the main breaker to the ON position. The 120 volt system will energize all 110 volt circuits and outlets when the main breaker is turned on.

IMPORTANT

It is important to inspect the shore power cord before and after each use. If the cord or plug shows any signs of damage, either from abrasion or heat, or if the pins are loose, or the insulation is damaged or pulled back at all, it should be inspected by a qualified technician for potential replacement. NEVER use a shore power cord that has exposed wires or signs of heat damage (melting insulation or cover, misaligned pins, etc.).

110 VAC Breaker Boxes

Main Breaker Box

The 110 volt and 12 volt breaker boxes are generally located in the bathroom cabinetry. Circuit breakers and fuses are installed to protect the electrical system from overloading. Do not attempt to change the circuitry or add appliances yourself. Please consult an authorized Newmar Service Center.

Inverter "Sub-panel" Breaker Box

The circuits that the inverter supplies power to are independently protected in a smaller "sub" panel located adjacent to the main breaker box. This panel is powered by the inverter. When the unit is plugged into shore power or the generator is running, the current passes through the inverter to supply power to these circuits.

When there is no external AC power source, the inverter powers these circuits with the house batteries. Note that every appliance and accessories in your unit is not on the Inverter "Sub" Breaker box. Only those appliances in the Inverter "Sub" Box will be powered by the inverter.

Generator

The generator in your unit is located between the front frame rails, and is mounted on a hydraulic cradle that will extend or retract the generator at the touch of a button. It is wired into the "Automatic Transfer Switch" and will power all the 110 volt AC circuits in your Essex. The generator can be started from the dash switch, or remotely started at the generator itself.

Located on the generator remote start panel (at the generator) are two main breakers for the two output legs of the generator wiring. Please note that on startup, there is a momentary delay in the "Automatic Transfer Switch" engaging to pass the electricity on from the Genset.

The generator in your new Essex runs on the same diesel fuel as your main engine. The diesel fuel is drawn through a separate supply tube that is positioned in the tank in a manner that will not allow the generator to draw fuel and run if the tank level dips below the ¼ level.

Please refer to the generator manufacturers operating guide for specific information on maintaining your new Genset. Regular oil changes and other maintenance performed at the prescribed intervals will greatly extend the life of your generator.

Inverter

Your Essex is equipped with a 2800 Watt "Pure Sine Wave" inverter. An inverter changes DC power from the house batteries into AC current to operate most of your appliances.

When 110 VAC is present from the generator or shore power, internal switching in the inverter passes the electricity through to the appliances it controls, and turns on a charge circuit to recharge the batteries. The inverter is controlled by the remote panel located in the front overhead cabinet.

The ME inverter / charger has two modes of operation: "Inverter" mode (providing power to the appliances from the house batteries), and "AC" mode (running from shore power or if your Genset is running).

When your inverter is in the “AC” mode, it passes power directly to your appliances, as well as recharges the batteries using a three stage battery charger (“Bulk”, “Absorption”, and “Float”). This approach to battery charging provides rapid and complete charging cycles without placing undue stress on the batteries. Inverter operation is completely automatic.

IMPORTANT

Inverters draw power from the “house” batteries to provide current to most of the appliances and accessories in your unit without having to plug into shore power or run your generator. Because they use DC power from the batteries to do that, energy consumption from those batteries is high, and increases significantly as more appliances are added to the load. To extend battery life, minimize the number of appliances operating at any given time. All AC operated appliances have a label attached to tell how much power they consume. Be sure allow sufficient time for recovery / recharging between battery use cycles.

IMPORTANT

High battery voltage may be caused by excessive voltage from the alternator, solar panels, or another external charge source. Be sure to correct the cause of the overcharging condition to prevent damage to the batteries and electronic equipment in your Essex. The inverter must be manually restarted after this fault.

Newmar SilverLeaf RV-C Control System Manual

SCREEN ACCESS

Please be aware that not all of the following screens are available to the end user!

Some configuration screens require a password for access.

Password protected screens contain control settings that should only be changed by qualified individuals! Changing these control settings to an improper setting can adversely affect the operation of the control system and may cause damage to the coach!

The following is a list of the control and system status screens available on the Newmar SilverLeaf Control System Touch Screen Display.

SYSTEM SPLASH SCREEN

The Splash Screen is displayed momentarily on system power up. This screen can also be selected for display as one of the screen saver selections found in the monitor configuration.

HOME SCREEN

Every control function can be accessed by pressing one of the Buttons on the Home Screen. The Home Screen also displays some of the system status and warnings. The following items are displayed and/or controlled from this screen:

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HOME SCREEN WITH FLOOR HEAT OPTION

BUTTON FUNCTIONS

- Home Button – Pressing this Button returns you to the Home screen from the other control screens.
- AC Power Button – Pressing this Button selects the AC Power Screen. (see AC Power Screen)
- DC Power Button – Pressing this Button selects the DC Power Screen. (see DC Power Screen)
- Genset Button – Pressing this button selects the Genset Screen. (see Genset Screen)
- Water Button – Pressing this button selects the Water Control Screen. (see Water Control Screen)
- Climate Button – Pressing this button selects the Climate Control Screens. (see Climate Control Screen)
- Temp Button (Standard Control) Pressing the Temp Button selects a screen that displays the outside ambient temperature.
- Floor Button (Floor Heat Option) When the Floor Heat option is installed, the Floor Button will be displayed in place of the Temp Button. Pressing the Floor Button selects the Floor Heat Control Screen. (see Floor Heat Control Screen)
- Features Button – Pressing this button will select the Features Screens. (see Features Screens)
- Genset Button (Top Center) – Pressing this button will manually start and stop the generator. The button indicator will highlight when the generator is running.
- AUTOFILL Button – Pressing this button will turn on the Auto Fill feature. The button indicator will be light blue when the Auto Fill is on.
- PUMP Button – pressing this button will turn the Water Pump on and off. The button indicator is light blue when the pump is powered.
- AUTOGEN Button – Pressing this button will select the AGS screens. The button indicator is light blue when the Auto Charger is enabled. (see AGS Screens below)
- Block Heater Button – Pressing this button toggles the Block Heater relay on/off. The button indicator is yellow when the load is shed and blue when on.

STATUS DISPLAYS

- Overall System Status - "OK" if no errors or warnings are present. Warnings and Errors will be displayed in this area.
- Date/Outside Temperature/Time – The system date, outside temperature and time are displayed in this area.
- Tank Status – The Fresh, and Holding tanks status is displayed as a percentage of "Full". Both a bar graph representation and a numerical percentage are displayed.
- DC Voltage – Both the House Battery voltage and the Chassis Battery Voltage are displayed. There is also a Lightning Bolt icon that will illuminate when the isolator relay (Charge Bridge) is energized connecting both battery systems together.
- AC Voltage and Current –The AC Voltage and Current (Amperage) for both AC power legs are displayed

AC POWER SCREENS MAIN AC POWER SCREEN

The AC Power Screen displays the AC Line Voltage and Current (Amperage) usage, as well as, the AC Line Frequency (Hz). The AC Amp-erage values are displayed both numerically and with horizontal bar graphs. The AC Voltage values are displayed numerically. The AC Line Frequency is displayed in Hertz (Hz). This screen also displays the maximum charge draw amps setting value, as well as, the inverter status. The Load Shed Management screen is selected from the Load Shed Button located on this screen.

AC POWER SCREENS LOAD (SHED) MANAGEMENT SCREEN

The Load Management Screen displays the Shore Power Phase setting (Single Phase 30 Amps and less Service, Dual Phase 50 Amp Service) and allows you to change between the phase selections using the Change Button. The current Amp draw is displayed for both legs on this screen. The Load Status screen is selected from the Loads Button. The Load Settings Screen is selected from the Settings Button.

AC POWER SCREENS LOAD STATUS SCREEN

The Load Status Screen displays the electrical status of all the AC powered devices that are controlled by the control system. This screen also displays the AC voltage and amperage usage on both power legs

AC POWER SCREENS LOAD SETTING SCREEN 1

The first Load Setting screen configures the following settings:

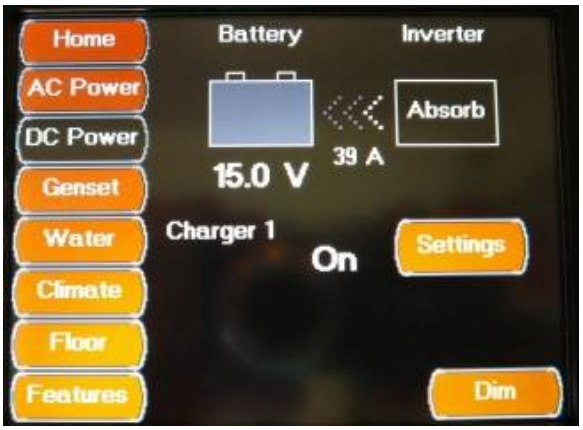
- Phase Detection Manual / Automatic
  Set to Manual for standard Transfer Switch. Set to Automatic for RV-C Transfer Switch.
  A RV-C Transfer Switch has the capability of automatically detecting Dual Phase (240 VAC) 50 Amp AC power based on the available AC power source.
- Default Phase Single Phase / Dual Phase
  Selects the default Phase setting for the Load Shedding function.
- Capacity - Single Phase (Amperage)
  This setting sets the Load Shedding Amperage value for the Single Phase selection.
- Capacity Dual Phase (Amperage)
  This setting sets the Load Shedding Amperage value for the Dual Phase selection. This should normally be set 50 Amps.

AC POWER SCREENS LOAD SETTING SCREEN 2

The second Load Setting screen configures the following settings:

- Capacity - Dual Phase (Amperage)
  This setting sets the Load Shedding Amperage value for the Dual Phase selection. This should normally be set 50 Amps.
- Load Shedding Enabled / Disabled
  Load Shedding Enabled allows the control system to shed (turn off) system configured AC powered devices in order to maintain a maximum phase capacity AC amperage usage.
- Generator Settling Enabled / Disabled
  This setting should be set to Enabled for proper Auto Gen operation.
- Charger 1 Shedding Enabled /Disabled.
  This setting determines if the Battery charger should be shed (turned off) with the other Load Shedding devices.

DC POWER SCREENS MAIN DC POWER SCREEN



The Main DC Power Screen displays the Inverter / Charger status and allows access to the Magnum Setting Screens

The Battery Icon has a vertical bar graph that indicates the battery charge level. The battery voltage value is displayed directly below the icon. The arrows between the Battery and Inverter Icons indicate the direction of the current flow. The current (amperage) value is displayed below the arrows. The inverter status is displayed inside the Inverter Icon.

DC POWER SCREENS MAGNUM SETTINGS SCREEN 1

The first Magnum Setting screen configures the following settings:

- Inverter Status On / Off / Standby
- Charger Status On / Off / Standby
- Max Charging Current (Amperage)
  This is the maximum amount of current the charger can output.
- Load Sense Power (Wattage)
  This is the Power Level (Search Watts Setting) required to activate (wake up) the inverter.

DC POWER SCREENS MAGNUM SETTINGS SCREEN 2

The second Magnum Setting screen configures the following settings:

- Charger Status On / Off / Standby
- Max Charging Current (Amperage)
  This is the maximum amount of current the charger can output.
- Load Sense Power (Wattage)
  This is the Power Level (Search Watts Setting) required to active (wake up) the inverter.
- Max Charger Rate (Percentage)
- This is the maximum % of AC current (amperage) used to recharge the batteries.

DC POWER SCREENS MAGNUM STATUS SCREEN

The DC Power (Settings) Magnum Status Screen displays the following Status Values:

- Magnum Model/Version
  This value is read from the inverter via the Inverter Module.
- Battery Temperature
  This value is read from the inverter battery temperature sensor via the Inverter Module.
- Internal Temperature
  This value is read from the inverter via the inverter Module.
- FET Temperature
  This value is read from the inverter via the Inverter Module.

DC POWER SCREENS MAGNUM ADVANCED SETTINGS SCREEN ACCESS

The Password Access Screen is displayed to provide access to advanced system configuration screens. The advanced configuration screens contain control settings that should only be changed by qualified individuals. Changing these control settings to an improper setting can adversely affect the operation of the control system and may cause damage to the coach.

DC POWER SCREENS MAGNUM ADVANCED SETTINGS SCREEN 1

This Magnum Advanced Settings Screen has the following Configuration Values:

- Low Voltage Shutdown (DC Voltage)
  This setting is the low DC Voltage trigger point that will turn off the Inverter.
- Battery Type Flooded / Gel / AGM / AGM2
  This setting is the physical battery type.
- Battery Rating (AH)
  This setting is the total house battery power capacity.
- Equalization Volts (DC Voltage)
  This setting should match the manufacturer setting for the battery type.

DC POWER SCREENS MAGNUM ADVANCED SETTINGS SCREEN 2

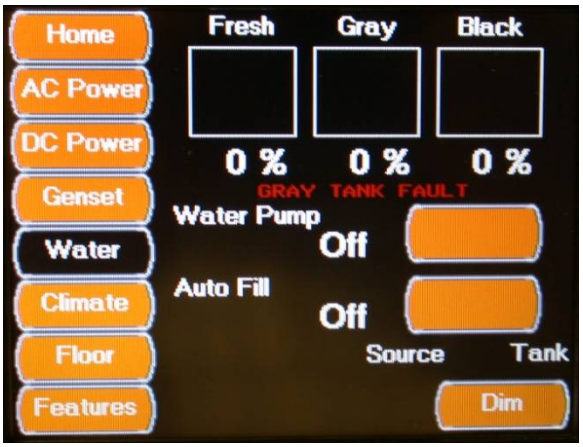
This Magnum Advanced Settings Screen has the following Configuration Values:

- Low AC Volts (AC Voltage)
  This setting is the low AC Voltage (Brown Out) trigger point that will turn off the charger.
- Absorption Volts (DC Voltage)
  This is the DC Voltage that will be output when the charger is in Absorption Mode.
- Absorption Time (Hr)
  This is the amount of time that the charger will stay in Absorption Mode.
- Float Volts (DC Voltage)
  This is the DC Voltage that will be output when the charger is in Float Mode.

GENSET SCREEN

The Genset Screen displays the current Generator Status. The Start and Stop Buttons allow you to manually start and stop the generator. The Clear AGS Button allows you to clear the AGS Safety Lockout flag to reset the Auto Gen function..

WATER SCREEN ALL ELECTRIC EQUIPPED COACH



The Water Screen on coaches equipped with the All Electric option displays the Fresh and Holding Tanks volume % full status. This screen also displays tank related faults, if any. The Water Pump Button turns the Water Pump on and off. The Auto Fill Button turns the Auto Fill function on and off.

WATER SCREEN LP EQUIPPED COACH

The Water Screen for a coach equipped with a LP tank displays and controls the same functions as the All Electric Water Screen with the addition of the LP tank fill status.

CLIMATE SCREENS CLIMATE ALL SCREEN

The Climate Screens are used to display the status and control the HVAC systems. The Climate "All" Screen displays the combined Heating and Cooling controls for all of the HVAC zones. This screen provides global control the HVAC system. Pressing either the Heat or Cool Button activates all of the zones at one time. The set points can be changed by either pressing the associated up and down arrows or by dragging the associated circular temperature wheel to the desired set point. The Heat and Cool Buttons will highlight when active. Icons will also be displayed for the heating and cooling functions. The Oasis control screen is also accessed from this screen.

CLIMATE LVRM SCREEN

The Climate “LvRm” Screen displays the Heating and Cooling controls for Living Room zone.

CLIMATE KITCH SCREEN

The Climate “Kitch” Screen displays the Heating and Cooling controls for Kitchen zone.

CLIMATE BATH SCREEN

The Climate “Bath” Screen displays the Heating controls for Bathroom zone. Since the Bathroom does not have an air conditioner there is no Cool Button displayed on this screen.

CLIMATE BED SCREEN

The Climate “Bed” Screen displays the Heating controls for Bedroom zone.

CLIMATE OASIS SCREEN

The Oasis Screen is accessed from the Oasis Button displayed in the Climate All Screen. This screen controls the Oasis Burner and both AC Heating Elements. The Burner, AC #1 and AC #2 Buttons will highlight when active. This screen also displays the Oasis System operational Status and Faults.

TEMP SCREEN

The Temp screen is accessed by pressing the Temp Button located on the Home Screen. This screen displays the Outside Air Temperature and only exists on systems without the optional Floor Heat.

FLOOR SCREEN OPTIONAL FLOOR HEAT

The Floor Screen is accessed from the Floor Button located on the Main Screen. This screen controls the Floor Heat Zones by means of the slider bars or the up and down arrows and is only available on systems with the Floor Heat option.. The higher the number, the longer the time interval the heat mats are energized. This screen also contains icons that show the heating mat status. When the icon is red the mat is in heat cycle and when the icon is grey the heat function is on but the mat is between heating cycles.

FEATURES SCREENS SCREEN 1

The Special Features Screens are used for system setup and diagnostics.
The additional screens are accessed via the Up/Down Arrows.
Special Features Screen 1 allows access to the following features:

- Clock Button
  Accesses the Clock Setup Screen
- System Diagnostics Button
  Accesses the System Diagnostics Screens
- Monitor Configuration Button
  Accesses the Monitor Configuration Screens
- Auto Genstart Button
  Accesses the Auto Genstart Configuration Screens

FEATURES SCREENS SCREEN 2

Screen 2 allows access to the following features:

- View AC Power History Button
  Accesses the AC Power History Screen
- Auto Fill Configuration Button
  Accesses the Auto Fill Configuration Screens
- Warnings Configuration Button
  Accesses the Warnings Configuration Screens
- Tank Calibration Button
  Accesses the Tank Calibration Screens

FEATURES SCREENS SCREEN 3

Screen 3 allows access to the following features:

- Climate Configuration Button
  Accesses the Climate Configuration Screens
- TM102 Configuration Button
  Accesses the TM102 Configuration Screen
- Component Versions Button
  Accesses the Component Versions Screen
- View Splash Screen Button
  Accesses the Splash Screen

FEATURES SCREENS FLOOR HEAT OPTION SCREEN 1

This screen is the same as the Base System Screens

FEATURES FLOOR HEAT OPTION SCREEN 2

This screen has the optional Floor Heat Configuration Button

Floor Heat Option Screen 2 allows access to the following features:

- View AC Power History Button
  Accesses the AC Power History Screen
- Auto Fill Configuration Button
  Accesses the Auto Fill Configuration Screens
- Floor Heat Configuration Button
  Accesses the Floor Heat Configuration Screen
- Warnings Configuration Button
  Accesses the Warnings Configuration Screens

FEATURES FLOOR HEAT OPTION SCREEN 3

Floor Heat Option Screen 3 allows access to the following features:

- Tank Calibration Button
  Accesses the Tank Calibration Screens
- Climate Configuration Button
  Accesses the Climate Configuration Screens
- TM102 Configuration Button
  Accesses the TM102 Configuration Screen
- Component Versions Button
  Accesses the Component Versions Screen

FEATURES FLOOR HEAT OPTION SCREEN 4

Floor Heat Option Screen 3 allows access to the following features:

- Climate Configuration Button
  Accesses the Climate Configuration Screens
- TM102 Configuration Button
  Accesses the TM102 Configuration Screen
- Component Versions Button
  Accesses the Component Versions Screen
- View Splash Screen Button
  Accesses the Splash Screen

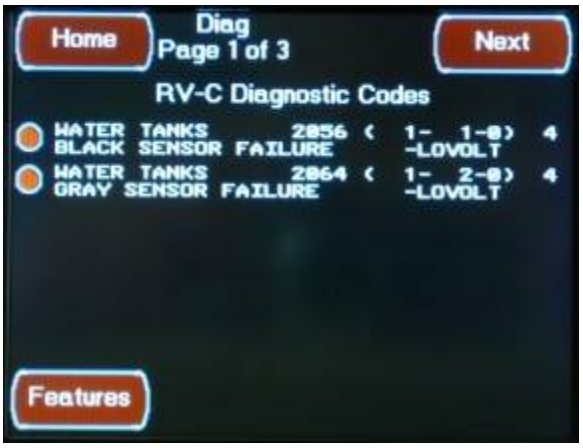
FEATURES CLOCK SCREEN

This screen is accesses by pressing the Clock Button form The Features Screen. This screen displays the system time and allows you to access both the Alarm Clock and Countdown Timer functions.

Pressing the Alarm Button will take you to the Alarm Clock page. On this page are two scroll bars that allow you to set the time that you want the alarm to sound. There is also a selector to set the alarm from Off to Once Only to Every Day settings. There is also a Back Button that will take you back to the Clock Screen and a Set Clock Button that will take you to Monitor Configuration page 1, which will allow you to set the system time.

Pressing the Timer Button on the Clock Screen accesses the Countdown Timer screen. This screen has two scroll bars that allow you to set the countdown minutes and seconds. There is a Start Button on this screen that when pressed begins the countdown timer. This screen also has Back and Set Clock Buttons the same as the Alarm Clock screen.

FEATURES SYSTEM DIAGNOSTICS SCREEN 1



This first Systems Diagnostics Screen is accessed by pressing the System Diagnostic Button located on the Features Screens or from the “Prev” Button located on second Systems Diagnostics Screen. This Screen displays any system faults present on the control system.

FEATURES SYSTEM DIAGNOSTICS SCREEN 2

This second Systems Diagnostics Screen is accessed by pressing the Next Button located on the first Systems Diagnostics Screen or from the “Prev” Button located on third Systems Diagnostics Screen. This Screen displays communications status present on the control system.

FEATURES SYSTEM DIAGNOSTICS SCREEN 3

This third Systems Diagnostics Screen is accessed by pressing the Next Button located on the second Systems Diagnostics Screen. This Screen displays additional communications status present on the control system.
Pressing the Reset TM102 Button will reset the TM102 Module..

FEATURES MONITOR CONFIGURATION SCREEN 1

This first Monitor Configuration Screen is accessed by pressing the Monitor Configuration Button located on the Features Screens or from the “Prev” Button located on second Monitor Configuration Screen. This Screen allows you to set the system time and date by pressing the associated up and Down Buttons.

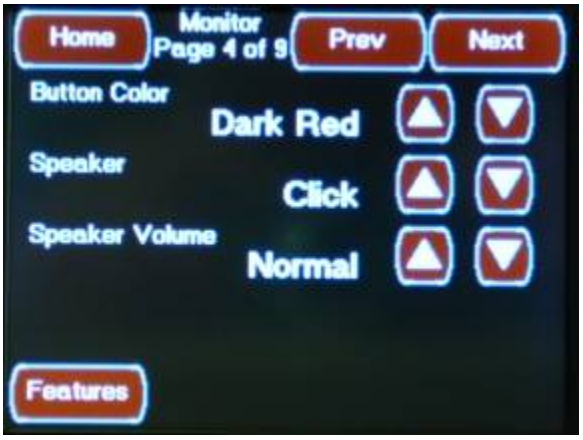
FEATURES MONITOR CONFIGURATION SCREEN 2

This second Monitor Configuration Screen is accessed by pressing the Next Button located on the first Monitor Configuration Screen or from the “Prev” Button located on third Monitor Configuration Screen. This Screen allows you to set the Day Time Display Settings by pressing the associated Up and Down Buttons.

FEATURES MONITOR CONFIGURATION SCREEN 3

This third Monitor Configuration Screen is accessed by pressing the Next Button located on the second Monitor Configuration Screen or from the “Prev” Button located on fourth Monitor Configuration Screen. This Screen allows you to set the Night Time Display Settings by pressing the associated Up and Down Buttons.

FEATURES MONITOR CONFIGURATION SCREEN 4



This fourth Monitor Configuration Screen is accessed by pressing the Next Button located on the third Monitor Configuration Screen or from the “Prev” Button located on fifth Monitor Configuration Screen. This Screen allows you to set the following Monitor Functions:

- Button Color (Multiple Colors)
  Select using the Up / Down Arrows
- Speaker (None, Click or Beep)
  Select using the Up / Down Arrows
- Speaker Volume (????)
  Select using the Up / Down Arrows

FEATURES MONITOR CONFIGURATION PASSWORD ACCESS

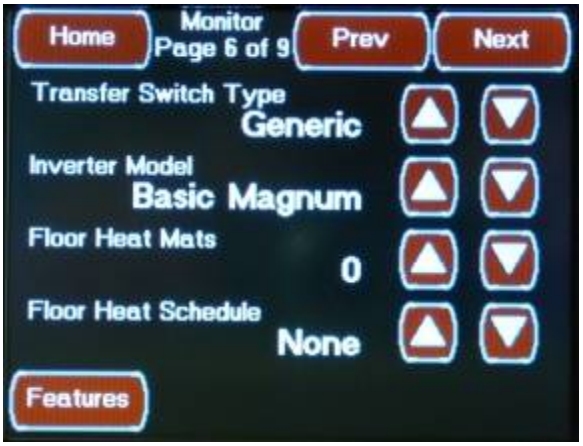
The Password Access Screen is to provide access to advanced system configuration screens. These screens contain control settings that should only be changed by qualified individuals.

FEATURES MONITOR CONFIGURATION SCREEN 5

This fifth Monitor Configuration Screen is accessed by pressing the Next Button located on the fourth Monitor Configuration Screen or from the "Prev" Button located on sixth Monitor Configuration Screen. This Screen allows you to set the following Display Settings by pressing the associated Up and Down Buttons:

- OEM Set to Newmar
  Select using the Up / Down Arrows
- Video Camera Available Set to No
  Select using the Up / Down Arrows
- Waste System Installed Set to None
  Select using the Up / Down Arrows
- Primary Furnace Installed Set to Oasis Basic
  Select using the Up / Down Arrows

FEATURES MONITOR CONFIGURATION SCREEN 6



This sixth Monitor Configuration Screen is accessed by pressing the Next Button located on the fifth Monitor Configuration Screen or from the "Prev" Button located on seventh

Monitor Configuration Screen.
This Screen allows you to set the following Display Settings by pressing the associated Up and Down Buttons:

- Transfer Switch Type Set to Generic
  Select using the Up / Down Arrows
- Inverter Model Set to Basic Magnum
  Select using the Up / Down Arrows
- Floor Heat Mats Set to 0 if no Floor Heat Installed / Set to 3 if Floor Heat Installed

Select using the Up / Down Arrows

- Floor Heat Schedule Select Appropriate Setting
  Select using the Up / Down Arrows

FEATURES MONITOR CONFIGURATION SCREEN 7

Screen or from the "Prev" Button located on eighth Monitor Configuration Screen.
This Screen allows you to set the following Display Settings by pressing the associated Up and Down Buttons:

- Power management Installed Set to TM-250
  Select using the Up / Down Arrows
- Tile Heat System Installed Set to TM-220 Timed – if Floor Heat is installed
  Select using the Up / Down Arrows
- Autotemp AGS Installed Set to Autotemp for Temperature Autogen Control
  Select using the Up / Down Arrows
- Block Heater Instance Set to 1
  Select using the Up / Down Arrows

This seventh Monitor Configuration Screen is accessed by pressing the Next Button located on the sixth Monitor Configuration

FEATURES MONITOR CONFIGURATION SCREEN 8

This eighth Monitor Configuration Screen is accessed by pressing the Next Button located on the seventh Monitor Configuration Screen or from the "Prev" Button located on ninth Monitor Configuration Screen.

This Screen allows you to set the following Display Settings by pressing the associated Up and Down Buttons:

- Ambient Temp Instance
  Set to 249
  Select using the Up / Down Arrows
- Air Cond. Model
  Set to Dometic/TM510
  Select using the Up / Down Arrows
- Video Switch Instance
  Set to 0
  Select using the Up / Down Arrows

FEATURES MONITOR CONFIGURATION SCREEN 9

This ninth Monitor Configuration Screen is accessed by pressing the Next Button located on the seventh Monitor Configuration Screen. This Screen allows you to reset the display to the default settings or to restart (reboot) the display. Pressing the Reset to Defaults Button will set the display to the Factory Default settings. Resetting the display to the Factory Default settings will change any previously set settings. Pressing the Restart HMS Button will reboot the display. Generally a Restart is required after any setting changes have been made. In some cases the changes will take effect without a Restart..

FEATURES AUTO GENSTART CONFIGURATION SCREENS AGS SCREEN 1

This first Autogen Configuration screen is accessed by pressing the Autogen Configuration
Button located on the Features Configuration Screen or by pressing the "Prev" Button located on the second Autogen Configuration screen. This screen allows you to change the following settings:

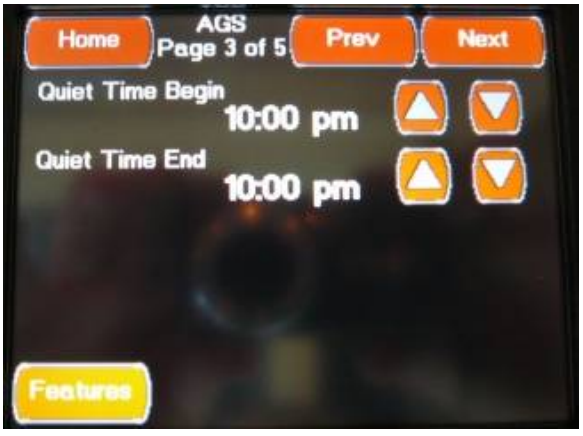
- Safety Lock
  Select using the Up / Down Arrows
- Auto Charger Enabled / Disabled
  Select using the Up / Down Arrows
- Exerciser Enabled / Disabled
  Select using the Up / Down Arrows
- Auto Temp Enabled / Disabled
  Select using the Up / Down Arrows

FEATURES AUTO GENSTART CONFIGURATION SCREENS AGS SCREEN 2

This second Autogen Configuration screen is accessed by pressing the Next Button located on the first Autogen Configuration screen or by pressing the "Prev" Button located on the third Autogen Configuration screen. This screen allows you to change the following settings:

- Autocharger Start Volts (DC Voltage)
  Select using the Up / Down Arrows
- Autocharger Max Run Time (min Time Set)
  Select using the Up / Down Arrows
- Topoff Volts (DC Voltage)
  Select using the Up / Down Arrows
- Topoff Run Time (min Time Set)
  Select using the Up / Down Arrows

FEATURES AUTO GENSTART CONFIGURATION SCREENS AGS SCREEN 3

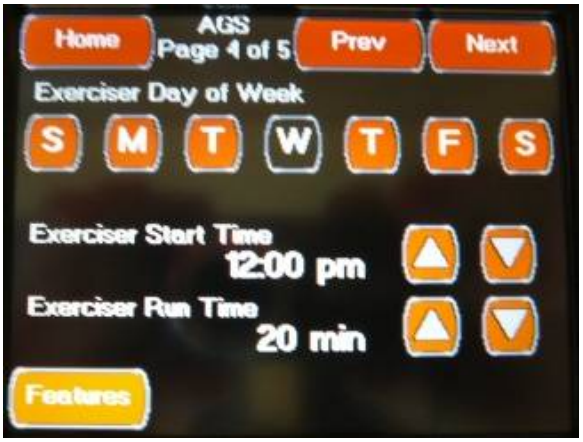


This third Autogen Configuration screen is accessed by pressing the Next Button located on the second Autogen Configuration screen or by pressing the "Prev" Button located on the fourth Autogen Configuration screen. This screen allows you to change the following settings:

- Quiet Time Begin Time of Day
  Sets Quiet Time starting time
  Select using the Up / Down Arrows
- Quiet Time End Time of Day
  Sets Quiet Time ending time
  Select using the Up / Down Arrows

Quiet Time is disabled if the Quiet Time Begin and End times are set to the same time.

FEATURES AUTO GENSTART CONFIGURATION SCREEN 4



This fourth Autogen Configuration screen is accessed by pressing the Next Button locatedon the third Autogen Configuration screen or by pressing the “Prev” Button located on the fifth Autogen Configuration screen. This screen allows you to change the following settings:

- Exerciser Day of Week
  Select Day(s)
  Select using the Up / Down Arrows
- Exerciser Start Time
  Time of Day
  Select using the Up / Down Arrows
- Autocharger Max Run Time (min Time Setting)
  Select using the Up / Down Arrows

FEATURES AUTO GENSTART CONFIGURATION SCREEN 5

This fifth Autogen Configuration screen is accessed by pressing the Next Button located on the fourth Autogen Configuration screen. This screen allows you to change the following settings:

- Auto Temp Set Point (Temperature Set Point)
  Select using the Up / Down Arrows
- Auto Temp Delay Time (min Time Setting)
  Select using the Up / Down Arrows
- Auto Temp Deadband (Temperature Value)
  Select using the Up / Down Arrows

FEATURES AUTOFILL CONFIGURATION SCREENS

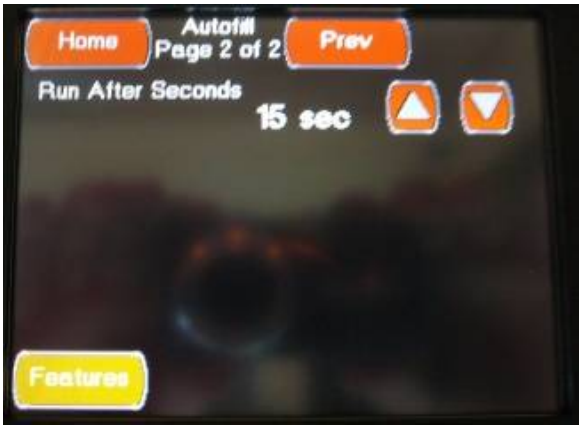
The Password Access Screen is displayed to provide access to advanced system configuration screens. The advanced configuration screens contain control settings that should only be changed by qualified individuals.

FEATURES AUTOFILL CONFIGURATION SCREEN 1

This first Autofill Configuration screen is accessed by pressing the Autofill Configuration
Button located on the Features Configuration
Screen or by pressing the “Prev” Button located
on the second Autofill Configuration screen. This screen allows you to change the following settings:

- Start Level (Numeric Percentage Value)
  Select using the Up / Down Arrows
- Stop Level (Numeric Percentage Value)
  Select using the Up / Down Arrows
- Max Time Out (Numeric min Time Value)
  Select using the Up / Down Arrows
- Run After Minutes (Numeric min Time Value)
  Select using the Up / Down Arrows

FEATURES AUTOFILL CONFIGURATION SCREEN 2



This second Autogen Configuration screen is accessed by pressing the Next Button located on the first Autofill Configuration screen. This screen allows you to change the following settings:

- Run After Seconds (Numeric sec Time Value)
  Select using the Up / Down Arrows

FEATURES FLOOR HEAT CONFIGURATION SCREEN

This Floor Heat Configuration Screen is accessed by pressing the Floor Heat Configuration Button located on the Features Configuration Screen. This screen is only available on systems with the Floor Heat option. This screen allows you to change the following settings:

- Floor 1 Name Set to Front
  Select using the Up / Down Arrows
- Floor 2 Name Set to Mid
  Select using the Up / Down Arrows
- Floor 3 Name Set to Rear
  Select using the Up / Down Arrows

FEATURES WARNINGS CONFIGURATION SCREENS

FEATURES WARNINGS CONFIGURATION SCREEN 1

This first Warnings Configuration screen is accessed by pressing the Warnings Configuration Button located on the Features Configuration Screen or by pressing the “Prev” Button located on the second Warnings Configuration screen. This screen allows you to change the following settings:

- Fresh tank Warning (Numeric Percentage Value)
  Select using the Up / Down Arrows
- Gray Tank Warning (Numeric Percentage Value)
  Select using the Up / Down Arrows
- Black Tank Warning (Numeric Percentage Value)
  Select using the Up / Down Arrows
- Battery Warning (Numeric DC Voltage Value)
  Select using the Up / Down Arrows

FEATURES WARNINGS CONFIGURATION SCREEN 2

This second Warnings Configuration screen is accessed by pressing the Next Button located on the first Warnings Configuration screen. This screen allows you to change the following settings:

- LPG Tank Warning (Numeric Percentage Value)
  Select using the Up / Down Arrows

FEATURES TANK CALIBRATION SCREENS

FEATURES TANK CALIBRATION SCREEN 1

This first Tank Cal screen is accessed by pressing the Tank Calibration Button located on the Features Configuration Screen or by pressing the “Prev” Button located on the second Tank Cal screen. This screen allows you to change the following settings:

- Fresh Tank Size (Numeric Gal Value)
  Select using the Up / Down Arrows
- Gray Tank Size (Numeric Gal Value)
  Select using the Up / Down Arrows
- Black Tank Size (Numeric Gal Value)
  Select using the Up / Down Arrows

FEATURES TANK CALIBRATION SCREEN 2

This second Tank Cal screen is accessed by pressing the Next Button located on the first Tank Cal screen.

- Pressing the Fresh Dry Calibrate Button sets the Fresh Tank Sensor Dry-Point
- Pressing the Gray Dry Calibrate Button sets the Gray Tank Sensor Dry-Point
- Pressing the Black Dry Calibrate Button sets the Black Tank Sensor Dry-Point

FEATURES CLIMATE CALIBRATION SCREENS

FEATURES CLIMATE CALIBRATION SCREEN 1

This first Climate Setting screen is accessed by pressing the Climate Configuration Button located on the Features Configuration Screen or by pressing the Left Up Arrow located on the second Climate Setting screen. This screen allows you to change the following settings:

- Scheduling
  Select using the Up / Down Arrows
- Heat/Cool Lockout
  Select using the Up / Down Arrows
- Dehumidifier Set to None
  Select using the Up / Down Arrows
- Sec. Heat Mgmt Set to Automatic
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 2

This second Climate Setting screen is accessed by pressing the Left Down Arrow on the first Climate Setting screen or by the Left Up Arrow on the third Climate Setting screen. This screen controls the following:

- Zone 1 Name Set to LvRm
  Select using the Up / Down Arrows
- Zone 2 Name Set too Kitch
  Select using the Up / Down Arrows
- Zone 3 Name Set to Bath
  Select using the Up / Down Arrows
- Zone 4 Name Set to Bed
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 3

This third Climate Setting screen is accessed by pressing the Left Down Arrow on the second Climate Setting screen or by the Left Up Arrow on the fourth Climate Setting screen. This screen controls the following:

- Floor 1 Name Set to LvRm
  Select using the Up / Down Arrows
- Floor 2 Name Set to Bath
  Select using the Up / Down Arrows
- Floor 3 Name Set to Bed
  Select using the Up / Down Arrows
- Floor 4 Name Set to None
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 4

This fourth Climate Setting screen is accessed by pressing the Left Down Arrow on the third Climate Setting screen or by the Left Up Arrow on the fifth Climate Setting screen. This screen controls the following:

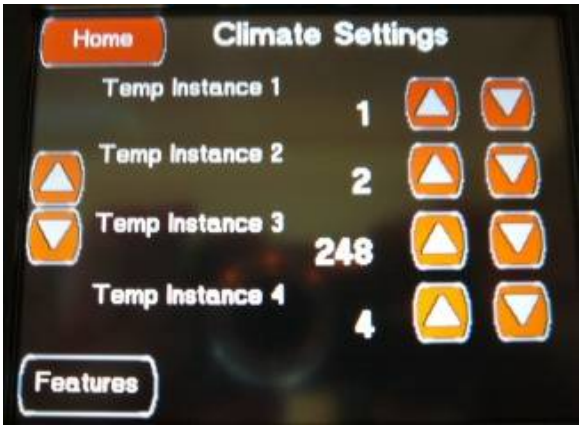
- Cool Instance 1 Set to 1
  Select using the Up / Down Arrows
- Cool Instance 2 Set too 2
  Select using the Up / Down Arrows
- Cool Instance 3 Set to 0
  Select using the Up / Down Arrows
- Cool Instance 4 Set to 4
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 5

This fifth Climate Setting screen is accessed by pressing the Left Down Arrow on the fourth Climate Setting screen or by the Left Up Arrow on the sixth Climate Setting screen. This screen controls the following:

- Heat Instance 1 Set to 1
  Select using the Up / Down Arrows
- Heat Instance 2 Set too 2
  Select using the Up / Down Arrows
- Heat Instance 3 Set to 166
  Select using the Up / Down Arrows
- Heat Instance 4 Set to 4
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 6



This sixth Climate Setting screen is accessed by pressing the Left Down Arrow on the fifth Climate Setting screen or by the Left Up Arrow on the seventh Climate Setting screen. This screen controls the following:

- Temp Instance 1 Set to 1
  Select using the Up / Down Arrows
- Temp Instance 2 Set too 2
  Select using the Up / Down Arrows
- Temp Instance 3 Set to 248
  Select using the Up / Down Arrows
- Temp Instance 4 Set to 4
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 7

This seventh Climate Setting screen is accessed by pressing the Left Down Arrow on the sixth Climate Setting screen or by the Left Up Arrow on the eighth Climate Setting screen. This screen controls the following:

- Sec. Heat Instance 1 Set to 164
  Select using the Up / Down Arrows
- Sec. Heat Instance 2 Set too 0
  Select using the Up / Down Arrows
- Sec. Heat Instance 3 Set to 166
  Select using the Up / Down Arrows
- Sec. Heat Instance 4 Set to 167
  Select using the Up / Down Arrows

FEATURES CLIMATE CALIBRATION SCREEN 8

This eight Climate Setting screen is accessed by pressing the Left Down Arrow on the seventh Climate Setting screen. This screen controls the following:

- Furnace Instance 1 Set to 1
  Select using the Up / Down Arrows
- Furnace Instance 2 Set too 0
  Select using the Up / Down Arrows
- Furnace Instance 3 Set to 0
  Select using the Up / Down Arrows
- Furnace Instance 4 Set to 4
  Select using the Up / Down Arrows

FEATURES TM102 CONFIGURATION SCREEN

This TM102 Flags screen is accessed by pressing the TM102 Configuration Button located on the Features Configuration Screen. This screen the active system functions.

FEATURES COMPONENT VERSIONS SCREEN

This Component Versions screen is accessed by pressing the Components Versions Button located on the Features Configuration Screen. This screen displays all of the RV-C Modules and their firmware versions found on the system.

12 VOLT DC SYSTEM

General Information

There are two separate 12 volt DC electrical systems on your Essex; one for the “chassis” portion, and the other for the “house” portion.

The “chassis” electrical system uses DC voltage to operate chassis related electrical accessories and lights, such as the headlamps, dash instrumentation, engine starting and management circuitry, and so on. This system includes a set of chassis batteries, and is charged in transit by the alternator. The chassis batteries have a disconnect switch located in the rear engine compartment.

The “house” electrical system uses DC voltage to operate all the house related DC lights and accessories, such as the interior lighting, ceiling vents and fans, slide outs, the water pump, and so on. The house electrical system also supplies the power (through the house batteries) for the inverter to operate. When 110 AC current is present, the inverter has a charge circuit that engages to charge the house batteries.

Though separate in operation, the two DC electrical systems are tied together through a battery isolator circuit. This circuitry is designed to keep the systems separated under most operating circumstances, but still allows them to be tied together under certain conditions. This is accomplished through a component called the Bi-Directional Isolator Relay Delay (BIRD). This component allows the two separate battery systems to be tied together for charging purposes or for “boosting” purposes if one set of batteries is low.

In transit, the alternator on the engine is the power source for charging batteries. The function of the “BIRD” allows the chassis batteries to be recharged off of the power coming from the alternator. Once the chassis batteries have been recharged (approximately 13.3 VDC), the “BIRD” will turn on circuitry that will then allow the house batteries to be charged in transit by the alternator. This allows both sets of batteries to charge while the coach is in transit.

When the RV is parked (with the engine off), and is connected to 110 VAC power (either generator or shore power), the “charge circuitry” in the inverter will engage, and will charge the house batteries. Once the house batteries have reached full charge (approximately 13.3 VDC), the “BIRD” will again engage circuitry that connects the two sets of batteries together, allowing the charge circuit in the inverter to charge the chassis batteries as well. This “Bi-Directional” operation works to keep both sets of batteries charged to capacity, regardless of whether it is in transit, or parked with incoming AC current.

12 Volt DC Circuit Protection

House Circuits

The “house” fuse panel is located in a cabinet in the bathroom. This panel contains fuses for most of the Newmar installed 12 volt DC accessories, including interior lighting, vents and fans, and so on. The fuse panel uses conventional “spade” type automotive DC fuses. Fuse amperage is labeled on the end of the fuse for easy viewing and replacement.

IMPORTANT

NEVER replace a fuse with a higher amp capacity fuse than was originally installed. This compromises the circuit protection by allowing more amperage
to flow through than the circuit was designed for, and could lead to failure of the component being operated, overheating of the wiring, or fire. Always use the same amperage fuse when replacement is necessary.

The "dash" fuse panel is located in the left front exterior compartment. This panel contains relays and fuses that protect Newmar installed dash accessories, including dash lights, blower fan, auxiliary accessory ports, and more. This panel uses standard "spade" type automotive fuses. The relays on this circuit board are not replaceable; they are permanently mounted to the circuit board and should be inspected only by a qualified technician prior to having any work done to them.

Chassis Circuit Protection

The chassis 12 volt DC circuit protection is located in two primary areas on your Essex. First, the front electrical panel, with fuses and relays, is located in the LF basement compartment, along with the Newmar dash fuse panel.

This panel consists of fuses and relays that control engine start up and operating functions. It is recommended that these circuits be serviced ONLY by a trained Spartan chassis technician.

The first basement compartment aft of the right rear tires houses the chassis diagnostic center. This service area contains diagnostic ports, relays, and circuit protection for the engine and transmission. This compartment should be serviced ONLY by a trained Spartan chassis technician.

Batteries

As previously mentioned, your Essex has two different sets of batteries. One set of batteries operates the Newmar installed "house" lights and accessories, and the other set starts the engine and operates the "chassis" electrical systems. Though similar in function, they are distinctly different battery types and arrangements.

Replacement batteries should be the same as was replaced. Any time one battery in a set of batteries is to be replaced, it is important to have all the batteries in the system tested to assure all are okay. If one defective battery is replaced, while leaving another weak or defective battery, lowered performance, or ultimately damaging the new or good batteries can be the result.

IMPORTANT

Charging batteries give off gasses as the fluids inside "boil". Because of this, it is critical to check the battery fluid levels regularly, particularly after extended periods of heavy use. Be sure to top off any battery that is showing signs of depleted fluid levels.

House Batteries

The standard battery arrangement in the Essex is a set of four (4) BCI “group size” GC-2 6 volt DC batteries, delivering a 450 amp hour reserve. If your Essex is the “all electric” model, there will be eight (8) of the same batteries, significantly increasing the available reserve. Douglas batteries for operation of the chassis electrical systems. The Essex comes with two (2) “group size” 37 - 12 VDC batteries with 960 cranking amps.

The All Electric Essex

If your Essex is equipped with the “All Electric” option, it is designed to operate solely on electricity, and will have no Propane gas tank or Propane fired appliances. Additional changes will include a larger bank of batteries (as previously mentioned), an electric range, and an electric refrigerator.

Note that because this unit does not have Propane, the refrigerator needs 110 AC current all the time to operate. Because of that, the refrigerator circuit is on the inverter. This is ONLY the case in the “all electric” Essex. In all other Essex models, where Propane gas is available, the refrigerators operate on Propane gas as well as electricity, so the need for inverter power to the refer is not necessary.

Chapter 8

PLUMBING & BATH FEATURES

FRESH WATER SYSTEM

IMPORTANT

Ease of operation was the key element in the design of the water compartment and plumbing in your unit. It is very important that you read and understand all the operating instructions for the plumbing system prior to using your unit. Failure to connect and operate the system correctly can result in damage that is not covered by the Newmar limited warranty.

IMPORTANT

The fresh water system in your Essex is designed to operate at a maximum of 60 PSI. Water pressure levels above that can damage the fresh water plumbing in your unit. If your travels take you to a destination where water pressure is above 60 psi, you must install a pressure regulator to reduce the incoming pressure, or fill the fresh water tank and use the internal water pump to supply water to your unit.

Kitchen Sink

The kitchen sink installed in your unit is a double-bowl design equipped with two sink covers to provide additional counter space when not in use. Cleaning care consists of washing with mild detergents and a soft cloth. Avoid using "S.O.S." type cleaning pads because they may scratch the surface. The faucet in the kitchen is a single-handle faucet with a pullout spout.

Bath Sink, Shower & Accessories

Use care when cleaning the bathroom sink to prevent scratching the surface. The bathroom accessories include two towel bars and a tissue holder. The faucet in the bathroom consists of a metal body. The shower installed is a combination fiberglass tub/shower with a glass shower door. The tub faucet with shower head, hose and bracket coordinate with the sink faucet. An optional assist handle may be installed in the tub/shower.

Water Pump Operation

Your Essex has a fully self-contained fresh water system with a fresh water storage tank, and a "demand" style 12 volt DC electric water pump. This pump is designed to build pressure in the fresh water plumbing in your coach, operating only when there is a demand for water on the system.

When any water pump switch is turned on, the water pump will come and build pressure in the system, and will shut off as soon as the system is correctly pressurized. When a faucet is opened, the pump will turn on and operate as necessary to maintain the preset pressure in the system.

Water Pump

The water pump is self-priming and totally automatic, operating on demand whenever water is required. The water pump is used to pressurize the fresh water system when the unit is not connected to city water. The switches to this pump may be located in the bathroom, on the monitor panel, and in the water works compartment. To start the pump, follow these instructions:

1. Fill or partially fill the fresh water supply tank.
2. Open the kitchen and bathroom faucets.
3. Turn the water pump switch on and allow the water to fill the water line and the hot water heater.
4. Close each faucet after it delivers a steady stream of water (close the cold water first). Leave the hot water faucets on until they also deliver a steady stream of water. This will ensure that the water heater is filled with water.
5. The water pump should stop running once all faucets are closed.
6. The pump is now ready for automatic operation. The pump will run when a faucet is opened and stop when a faucet is closed.
7. Never allow the pump to run for long periods of time without water in the supply tank. Pump damage or blown fuses may result.

All of the water should be drained from the fresh water system when the unit is not in use for more than one week. For more detailed information regarding the water pump, refer to the water pump manufacturer's brochure in your Owner's Information Package.

Exterior Water Compartment

The heart of the plumbing in your Essex is the exterior water compartment. All plumbing functions can be controlled from this location. Additionally, the connection points for city water, sewer rinse, and holding tank draining are all located in this compartment.

For your convenience, several items have been placed in this compartment to help keep you and your plumbing compartment clean. Located in this compartment are a towel holder, a liquid soap dispenser, an exterior shower with flex hose, and an exterior water spigot where a conventional "garden" style hose can be connected.

City Water Connection / Hose Reel

The city water connection is made with the white hose on the red reel in the left side of the water compartment. In conjunction with the "Fresh Water Fill Valve", this water source is used for a number of purposes, including pressurizing the plumbing in your unit, and filling the fresh water demand tank. The reel contains 35' of water hose.

The hose reel deploys manually by simply pulling the hose outward from the compartment. Once the desired length of hose has been reached, a tug on the hose will lock the reel in place. Spring tension on the hose reel provides power for retraction; pulling against the hose reel will release the latching mechanism and allow the hose to retract.

⚠ CAUTION

DO NOT release the fresh water hose during the retraction process. Spring tension on the hose reel can cause the hose to retract very quickly, and can cause physical harm or injury to you and damage to your coach.

Fill Valve Operation

The rotating "Fill Valve" located in the center of the water compartment is used to pressurize the fresh water system in your unit, as well as to fill the fresh water demand tank. When the unit is connected to city water, the "Fill Valve" is used to pressurize the fresh water plumbing in your unit, or fill the fresh water tank, or both. The panel is clearly labeled; simply rotate the "Fill Valve" to the appropriate position to perform the desired function. You can monitor the fresh water tank via the small "Multiplex" display unit located in the basement water compartment.

Domestic Hot Water

The hot water in your unit is heated by the Oasis hydronic heating system. Turning the 110 heating element on will usually provide sufficient hot water for most household chores. To operate an appliance that uses water, or to assure plenty of hot water for showering, turn on the Hydro-Hot boiler in the front overhead cabinet. Both heat sources can be used at the same time.

Water Filtration System

Your Essex was manufactured with a fresh water filtration system. This system uses extruded carbon filter cartridges to remove sediment and certain impurities from the incoming water supply. The filter assembly is located in the basement water compartment.

To replace the filter cartridge, turn off the water supply to the RV (at the city water connection). Unscrew the filter canister by rotating it clockwise. Replacement filter cartridges are available through your Authorized Newmar Dealer; have them order part number 03738.

Insert the new filter cartridge, positioning it so the opening in the bottom of the filter seats on the molded ring at the bottom of the canister. Reattach the canister to the filter housing by rotating the canister in a counter clockwise direction. When replacing the filter, make certain the rubber "O-Ring" seal is properly positioned in its groove in the cartridge housing. An improperly seated or missing seal will cause leakage around the perimeter of the filter housing. Use caution not to over tighten the canister when attaching it back to the housing.

⚠ IMPORTANT

DO NOT ALLOW WATER TO FREEZE IN THE WATER FILTER CANISTER. Freezing will crack and permanently damage the filter housing and associated plumbing. ALWAYS REMOVE THE FILTER CARTRIDGE PRIOR TO WINTERIZATION.

Water Distribution Manifold

Located in the upper left hand corner of the exterior water compartment is the water distribution manifold. The primary hot and cold water lines for the unit fed to this distribution center, and through a series of valves, supply water to the multiple plumbing systems in the unit.

In addition to offering greater organization and more balanced flow to the fresh water system in your unit, this distribution manifold offers the flexibility to allow you to shut off sections of the system while still using others. The blue knobs at the top are cold water supply valves; the red ones at the bottom are hot water supply valves. A tool is supplied with which you can open and close the valves as or if necessary.

WASTE WATER SYSTEM

General Information

The waste drainage system was designed to provide adequate and safe storage and/or disposal of waste materials. All of the materials used in the making of this system are tested by a nationally recognized testing laboratory. The drainage system uses plastic piping and fittings connected to the sinks, toilet, and holding tanks. This provides for their drainage to an outside termination. The unit should be reasonably level for best operation of the system. There are two separate waste systems. The gray water system is for waste water from the sinks and shower. The black water system is generally for sewage waste from the stool. Each tank has its own control valve, and both tanks drain through the sewer drain hose.

Toilet

The standard toilet in your unit is a china stool. The toilet operates with water from either the fresh water tank with the water pump on or the city water supply. Before using the stool, add water to the bottom of the tank. Refer to the “BLACK WATER TANK” instructions in this chapter. The stool flushes waste directly into the black water holding tank. The stool uses high velocity water injection to produce a swirl effect in the bowl. The greatest problem that causes stool solids to build up in the holding tank is lack of liquids. When using your stool, it is wise to fill the stool 3/4 full of water. This will help to wash the solids away from directly below the stool and to ensure complete dumping of the holding tank.

To add water to the stool bowl, press the button for “power fill” until the desired water level is reached. To flush the stool, push down on the lever until the water swirls. A small amount of water should remain in the bowl.

The stool should be cleaned regularly for maximum sanitation and operational efficiency. Clean the toilet bowl with a mild bathroom cleaner. Do not use chlorine or caustic chemicals, such as laundry bleach or drain opening types, as they will damage the seals in the toilet and dump valves. Refer to the toilet manufacturer’s owner’s manual in your Owner’s Package for complete instructions and a troubleshooting guide.

P-Traps

Each of the sink drains, the shower drain, and the washing machine drain (if equipped) has a water trap (P-Trap) to prevent holding tank odors from entering the coach.

These traps must have water in them in order to trap the odors. While traveling, the water may splash out of the sink and shower drains. While stored, the water may evaporate allowing an odor to enter the coach. If this occurs, run water from the faucet into the drain, allowing water to fill the trap.

Black Water Holding Tank

The black water, or sewage, holding tank is located directly beneath the toilet. Before using the stool, you will need to treat the tank with water that is mixed with an odor controlling chemical. These chemicals are readily available at any RV supply store. Be careful not to spill the chemical on your hands, clothing, or the carpet because it may cause a permanent stain. Pull the toilet levers forward to allow the chemical to mix with the toilet water. Continue pulling the toilet levers until at least one inch of solution is directly under the toilet. Release the levers, and the waste tank is ready for use.

CAUTION

Use only approved RV odor controlling chemicals in the holding tanks. Products containing ammonia and petroleum will damage the ABS plastic holding tanks and seals.

Gray Water Holding Tank

The gray water holding tank is located in the underbelly of the unit. It is primarily used for the drainage from the kitchen and bath sinks and the shower.

Waste Water Disposal

Both of the holding tanks terminate in a valve arrangement that permits draining each tank separately or together. It is recommended to drain the black water tank before the gray water tank. This will allow the water from the gray tank to wash the black water residue from the drain lines and hose. The valves that open to release the water are called gate valves. The blade that closed the opening in the sewer drain pipes is connected to the T-handle to release the contents of the tank(s) when pulled. The sewer line must be securely capped during self-containment use to prevent leakage of waste material onto the ground or pavement. Do not pull the holding tank gate valve open when the protective cap is installed on the pipe. Always drain the tank into an acceptable sewer inlet or dump station.

WARNING

Holding tanks are an enclosed sewer system and must be drained into an approved dump station. Both black and gray water holding tanks must be drained and rinsed thoroughly on a regular basis in order to prevent the accumulation of harmful or toxic materials.
Whenever possible, drain the holding tanks prior to traveling. The carrying capacity of your unit will be reduced if water is left in the black or gray tanks.

The holding tanks should only be drained when they are at least 3/4 full, doing this will provide sufficient water to allow the complete flushing of waste materials in the drain lines and hose. If the tanks are not 3/4 full, add enough water to allow for sufficient flushing.

To empty the waste water tanks, connect the adapter to the drain hose. Use the adapter supplied with your unit. If the adapter is lost or broken, one can be purchased from any RV supply store. Once you have placed the adapter on the drain hose, it can remain there for the life of the hose. One end of the hose threads up through the hole in the bottom of the service compartment, and the other end of the hose feeds into the sewer at the dump station. Unscrew the cap off the drain. Connect the hose with the adapter in place to the drain fitting. Open the gate valve all the way by pulling on the T-handle. The tank will start to drain as soon as the T-handle is pulled. After you have drained the black water tank, immediately drain the gray water tank. Doing this helps to flush the black water from the sewage hose.

When both of the tanks are empty, flush them with a fresh water rinse before you close the valves. The gray tanks are easily flushed by pouring a couple of gallons of water into a sink drain. The drain outlet is engineered for quick release of the drain hose adapter. Always close the gate valves and secure the end cap to prevent leakage while in transit. After draining the black water tank, it is recommended to add a few gallons of water and a holding tank deodorant (such as Thetford Aqua-Kem) to help control the odor and break down the solids. Follow the instructions given on the holding tank deodorant package.

When using dump stations for draining the holding tanks, please keep other travelers in mind by practicing good housekeeping. Leave the dump stations in good order. Above all, do not pollute.

Camping with Sewer Hook-Up

When camping at parks with sewer hook-up, it is important to keep the black water holding tank gate valve closed at all times, except when dumping. The gray tank can be kept open while hooked to a sewer connection but again, the black water tank must be kept closed. This is done so that an ample supply of liquid remains in the tank to provide a smooth flow through the gate and drain valve when dumping. Sufficient liquid in the tank causes a swirling action that should take any accumulated solid wastes with it. Accumulation of solid wastes in the black water tank can be avoided by keeping the gate valve closed when connected to the sewer hook-up. If the valve is left open, solid wastes may accumulate in the tank. This may eventually result in costly repairs.

CAUTION

The gray tank valve must be in the open position when operating the optional washing machine.

Sewage Tank Rinse

To aid in maintenance and cleaning, the sewage tank on your Essex is equipped with a “Sewage Tank Rinse”. This system uses a specially designed spray head permanently located in the sewage tank that cleans the inside of the tank when a water supply is connected.

IMPORTANT

Always drain the sewage tank PRIOR to rinsing. NEVER rinse a sewage tank that is full. The sewage drain MUST be open while rinsing the sewage tank and the drain hose MUST be positioned to drain into an approved sewage dump station. Failure to open the valve will cause the sewage tank to fill with water, and can cause damage to your plumbing and interior.

The Sewage Tank Rinse should have its own dedicated water supply hose. **NEVER** use a hose that will be used for drinking or other uses. Attach the hose to the external water supply, then to the Sewage Tank Rinse connection. Attach the sewer drain hose to the outlet, and place the open end in an approved sewer "Dump Station". Open the sewer drain gate valve. Turn on the external water supply to rinse the tank. Allow the water to rinse the tank for a minimum of 3 – 5 minutes to insure it is clean.

Winterization

It is critical to winterize the plumbing in your unit any time it is going to be either stored in temperatures below freezing, or used only on a limited basis in cold weather. Winterization is simply the removal of all of the water from the plumbing system. It also includes adding potable antifreeze to at least portions of the systems (P-Traps) to help prevent freeze damage.

Located in the upper right hand corner of the basement water compartment is a label identifying the steps used to winterize the fresh water system in your Essex. The label reads as follows:

Drain Fresh Water Tank and Hose Reel
Close "Low Point" Hot and Cold Water Valves
Close Top "A" Valve On This Panel
Open Valve "B" Below It
Insert Hose into Container of Potable Antifreeze
Turn On Water Pump
Open All Faucets
Flush Toilet
Open All Drains

WARNING

USE ONLY POTABLE "RV" ANTIFREEZE IN THE FRESH WATER SYSTEM OF YOUR ESSEX. AUTOMOTIVE ANTIFREEZE CONTAINS ETHYL GLYCOL, WHICH CAN BE HARMFUL OR FATAL IF INGESTED.

This basic procedure allows you to drain as much of the water out of the system as possible, then adds safe antifreeze to the lines, faucets, p-traps, and tanks. It is important to remember to open all the fresh water drain valves (for the hot and cold water lines, the

hose reel, and the fresh water tank) prior to pumping potable antifreeze through the system. Always remember to turn the water pump off when winterization is complete.

The following is the detailed procedure for winterizing your Essex:

1. Remove Filters and bypass the water lines on them (under cabinetry inside unit and in basement water compartment).
2. Open all “Fresh Water” related drains (hot and cold low points and fresh water tank). Drain as much water as possible; close all drain valves.
3. Set “Fill Valve” to “City Water / Auto Tank Fill” position (pointing up).
4. Attach compressed air fitting to “City Water Hose” (Reel). Set air pressure to 40 psi. Apply 40 psi air pressure to this setting for at least 30 seconds. (This forces water out of any lines and pockets that may not get antifreeze in a later step).
5. Go to exterior refrigerator service panel, and access the water valve / solenoid. Remove supply line and flex line to ice maker. Drain both lines until no more water comes out. The air pressure in the lines will force the existing water in this line out. Reattach water lines and close water supply valve to the refrigerator.
6. Switch “Fill Valve” to the “Manual Fill” position (to force any water out of the additional lines and valves between the tank and water pump). Apply 40 psi of air pressure to this valve position for at least 30 seconds.
7. Turn off air pressure and remove air hose from “City Water” connection. Switch “Fill Valve” to “City Supply / Manual override” for the rest of the winterization procedure.
8. In the exterior Water Compartment. Engage “Winterization” valves by closing the top “A” valve, and opening the “B” valve below it. Put the end of the clear “winterization” hose in a container of RV “Potable” Antifreeze. Turn on the water pump.

NOTE: **APPROXIMATELY 5 – 7 GALLONS OF POTABLE RV ANTIFREEZE ARE REQUIRED TO WINTERIZE AN ESSEX.**

9. Start with the farthest faucet from the water compartment (usually the kitchen sink faucet). Open every valve (don’t forget drinking water dispensers and both hot and cold sides of the faucet) and run until RV antifreeze flows freely from each. Close that faucet and move to the next faucet until all have been winterized. DO NOT forget the interior and exterior showers, and the toilet.
10. Winterize appliances as necessary:
    A. Winterize the dish washer (if so equipped) by running the appliance through a partial “rinse” cycle. Potable antifreeze will run into the wash drawer (where the dishes are), allowing antifreeze to the fill and drain areas of the appliance. It is important to run the entire rinse cycle so that the fill valves and drain valves and lines receive antifreeze. Note that this appliance only has a single “hot” water connection.
    B. Winterize the Washer / Drier (stackable or single unit) by running a complete rinse cycle in both hot and cold settings. Once the washer has drained the antifreeze, turn the appliance off, lift the lid, and add approximately one gallon of RV antifreeze to the wash tub.
    C. Ice maker was winterized during the initial steps of the procedure.

Sanitizing

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

1. Drain the fresh water tank by opening the drain valves. There is one valve per water tank. All of the faucets should be in the closed or off position.
2. Prepare a chlorine solution using one gallon of water and 1⁄4 cup of chlorine bleach (5% sodium hypo-chlorite solution). Prepare enough of the chlorine solution to administer one gallon of solution for every 15 gallons of tank capacity. For sanitizing this unit, prepare 4 - 1/2 gallons of the chlorine solution. This mixture puts a 50 PPM (parts per million) residual chlorine concentration in the water system that will act as a quick kill dosage for harmful bacteria, viruses and slime forming organisms. Concentrations higher than 50 PPM may damage the water lines and/or tank.
3. Once the fresh water tank is empty, close the drain valves on the water tank.
4. Pump the chlorine solution into the tank. This is done by placing the winterizing hose into the chlorine solution. Close the valve from the fresh water tank to the pump and open the valve from the solution to the pump. Turn the tank fill valve from city water to tank fill. Turn on the water pump until all of the solution is pumped into the fresh water tank.
5. Turn off the water pump. Close the valve to the solution. Open the valve from the tank to the water pump. Fill the water tank with the city water tank fill (or by using the same method as was used to put the sanitizing solution into the tank). Remove the water filter (from the drink dispenser faucet, if installed) and install the by-pass pipe to allow the sanitizing solution access to the faucet. Open each faucet in turn including the kitchen faucet, bath faucet, inside and outside shower, turning on both the hot and cold, and flushing the stool until all of the air has been purged from the pipes and the water runs freely. The entire system will then be filled with the sanitizing solution.
6. Allow the 50 PPM disinfecting solution to stand in the system at least four hours.
7. Drain the system and flush with fresh water. The water system needs to be flushed with clean water repeatedly, if necessary, until there is no chlorine taste or smell left in the system. To remove any excessive chlorine taste or odor that might remain, prepare a solution of one quart vinegar to five gallons of water. Allow this solution to agitate in the tank for several days by vehicle motion. Drain the solution and refill the tank with clean water.

IMPORTANT

Make sure the chlorine bleach solution is thoroughly and completely purged from the plumbing before using the fresh water system. Also, never use alternative cleansers; only potable materials may be used in your fresh water plumbing system.

Chapter 9

AUDIO, VIDEO & OTHER ELECTRONICS

AUDIO / VIDEO FEATURES

IMPORTANT

Some of the components mentioned in this section are optional and may not have been installed in your unit.

This section is designed to give clear operating directions on the many entertainment and convenience electronic components in your new Essex as Newmar has installed them. It does not, however, give detailed instructions pertaining to every option and feature of the components described herein. For complete operating directions for each component, please refer to the manufacturer's information located in the literature bags that were provided with your unit.

The Harmony Universal Remote

To simplify operation of the various electronic components in your Essex, we have employed the "Harmony" universal remote. This remote will operate the following components:

- Surround Sound Stereo Component
- DVD Player
- LCD Television(s)
- Exterior Entertainment Center TV

These components can all be controlled either individually, or through the use of "macros", can be used to operate a number of electronic accessories together as a package. For example, if you want to watch a DVD movie in a home theater "surround sound" mode, one touch of the macro button turns all the applicable components on and sets the system for operation in that mode.

Watch TV

To watch TV on the front or mid body TV's, press the **WATCH TV** button at the top of the remote.

Watch a DVD movie

- To watch a DVD movie and use the TV to control your volume, press the MORE ACTIVITIES button at the top right of the remote. Use the NEXT button to navigate through the screens until you come upon the WATCH A DVD function.
- Press the button that corresponds with this activity. This will activate all components needed to watch a DVD.

Watch a DVD movie w/ Home Theater

- Press the WATCH A MOVIE button at the top left of the remote. This will activate all components needed to watch a DVD movie while using the home theater receiver as your audio source.

Listen to CD

- Press the LISTEN TO MUSIC button on the top of the remote. This will activate all components necessary to listen to your CD's.

Listen to Radio

- Press the MORE ACTIVITIES button at the top right of the remote. Use the NEXT button to navigate through the screens until you come upon the LISTEN TO RADIO function. Press the button that corresponds with this activity. This will activate all components needed to listen to a CD.

If you have any problems, or if something is not functioning correctly, please press the HELP button. This will walk you through the steps necessary to make your entertainment system function properly. For more information on operating this remote please refer to the owner's manual or go to www.harmonyremote.com

IMPORTANT

The Harmony Universal Remote will control all of the functions of the Video selector Box except turning the power on or off.

LED TV

Your new Essex has been equipped with at least one LED television. It can be operated either independently, or as part of a system when using the Harmony remote. When operating the TV independently, it can be manipulated through either the controls on the TV, or with the Sony supplied remote control.

To operate the TV independently of the system, press the power button on the front, or use the remote to power the TV up. Once the TV has been turned on, use the input selector on the TV to choose the desired programming.

IMPORTANT

TV's in the front overhead cabinet will not operate when in transit. Federal regulations require these TV's be inoperative while the vehicle is in use, so the power supply to this TV is switched off automatically when the ignition is on.

The LED TV(s) in your unit are HD (High Definition) compatible, meaning they are capable of displaying the resolution and clarity of High Definition broadcasts and video sources.

Bedroom TV

In the bedroom you will find an LED TV. This TV offers HD (High Definition) compatible, meaning it is capable of displaying the resolution and clarity of High Definition broadcasts and video sources. Please refer to the Manufacturers Owners Guide that accompanied your unit for detailed instructions on operating the many features and functions of your new TV.

Surround Sound Theater System

The "Surround Sound" Home Theater has been incorporated into your Essex to bring the movie experience "to life" by placing you in the middle of the action. Located throughout your unit are five speakers and a subwoofer to deliver the dynamic, crystal clear digital sound previously only available in theaters.

Exterior Entertainment Center

For your convenience and pleasure, an Exterior Entertainment Center is an available option on the Essex. This entertainment center features an LCD flat screen television mounted on a pivoting bracket for ease of viewing, and an AM/FM/CD stereo and speakers to provide outside music when desired.

The LCD television is mounted on a swivel bracket that allows you to swing the TV out and away from the basement compartment, and to swivel it to allow for better viewing angles. To release the television from its retainers, grasp the sides of the TV firmly and pull it directly toward you. It will release and swing freely to the desired viewing position. To store the TV for travel, swing it back into the opening, taking that it is fully latched.

IMPORTANT

The electronics used in the Exterior Entertainment Center are not designed for use in wet weather. The TV should be stored securely in the "travel" position and the basement door closed during rain or other adverse weather conditions. Caution should also be exercised when washing the exterior of your Essex to make sure high pressure water does not enter the compartment. Spraying high pressure water at the seal between the doors can cause leaks, and potentially damage the electronics housed in this compartment.

The external stereo can be used to listen to AM and FM broadcasts, and to play CD's. It has the same functions and features as your in-dash stereo.

The LCD TV in the exterior entertainment center can be played through the exterior stereo. Press the "source" button on the stereo until the audio program from the TV is heard. For detailed operating instructions, please see the stereo manufacturers handbook located in the literature bag that came with your unit.

Power Lift Antenna

Your unit is equipped with a Winegard television antenna that features a power lift mechanism to raise and lower the antennae mast. To operate the system, locate the switch panel in the passenger side front overhead cabinet.

When using the antennae, raise and lower it to full extension. Once the antenna is fully extended, it can be rotated to the position that provides optimum signal reception. In rural or fringe areas where reception may be poor or weak, the antennae head had a signal amplifier built in. To turn this amplifier on, use the "Antennae Booster" button on the video selector box.

Bose Wave Radio

Mounted in the bedroom of your Essex is a Bose "Wave" radio. It offers functions as an alarm clock and an AM/FM/CD stereo. The audio programming from the bedroom TV can also be heard through the "AUX" input of the Bose Wave Radio. The unit is controlled via a small remote control provided with your unit.

In-Motion Satellite System

IMPORTANT

When the unit has come to a stop, and remains motionless for one minute, the KVH TracVision system goes into a "Sleep" mode, turning off the conical scan and positioning motors. Unlike turning the power off, when the KVH TracVision is in the "Sleep" mode, it is still drawing power. It is important to turn the system off when the unit is parked for camping, unless the unit is equipped with HD (High Definition) satellite receivers. If so equipped, leave the power switch to the KVH TracVision System on while watching satellite TV.

Optional on Essex is the KVH “TracVision” in motion satellite antennae. This system employs a state of the art actively stabilized antennae system. When you turn the Trac Vision system on and select a satellite to view the equipment will begin searching for the specified satellite. Once the satellite is acquired, the antennae gyro constantly monitors vehicle motion and position to keep the dish pointed at the satellite at all times.

If your unit is equipped with High Definition Satellite recievers, the KVH Tracvision System should be left on while watching satellite TV.

For information regarding this system or the optional Winegard satellite system, please refer to your owners information contained with the supplier infomration documents provided in the Newmar carry case.

Chapter 10

ROUTINE MAINTENANCE

EXTERIOR CARE

IMPORTANT

Damage caused by improper or unapplied maintenance is not covered by your Newmar Limited Warranty.

Washing your RV

The clear coat used on all painted Newmar RV's is a similar to the technology that used by car manufacturers. It is baked in our "state of the art" bake booths which cures the clear coat. The end result is a Masterpiece Finish™ which is the highest quality in the industry. The same care needs to be performed and maintained on your RV exterior surface as on your automobile.

- Make sure the RV's surface temperature is under 90˚ F, and is not in direct sunlight.
- Rinse the entire coach to remove all loose dirt and grime. Never hold a pressure washer close to the surface. Use a fan type spray nozzle, making sure that the water coming out of the gun has a fan and not a single straight stream.
- Most car stores offer mild car wash shampoos that are safe for clear coat finishes. We would recommend using baby shampoo as it will not leave a film on the coach. Adding ½ of a cup of food grade vinegar to the water will boost the cleaning ability of any cleaner and also soften the water. This also helps to minimize water spots. **Do not use dish soap, detergents with degreasing agents, or industrial cleaners as they can cause damage to the finish.**
- Use 100% cotton or Lambswool pads or wash mitts for washing the painted surfaces of your RV. Use a different mitt for washing the wheels and undercarriage. Please contact your Newmar dealer to order these Newmar parts. *(**Lambswool pad**: 018461; **Backer Pad**: 018461A; **Lambswool mitt**: 018464; **Extension pole**: 018463)*
- Change water in your wash bucket often or place a "dirt guard" in bottom of the bucket to keep the cleaning pad or wash mitt free of dirt and debris.

ABSOLUTELY NO BRUSHES SHOULD BE USED ON THE PAINTED SURFACE. USE OF THESE ON YOUR RV'S PAINTED SURFACE WILL CAUSE DAMAGE TO THE FINISH, AS IT WOULD AN AUTOMOBILE FINISH. NEWMAR DOES NOT SUPPORT USING ANY STYLE, TYPE, MATERIAL OF BRUSH EVEN THOUGH IT MAY BE MARKETED AS "RV SAFE" OR "APPROVED."

Damage caused by inappropriate or unapplied maintenance is not covered under warranty as expressed in the Newmar Expressed Limited Written Warranty.

Drying your RV

Drying your RV is just as important as washing it. Today's tap-water and well-water contain many chemicals that could water stain your RV's finish. After washing, dry your RV with the **EZE Squeegee** *(# 018462*) or a clean 100% leather chamois. You can also use fresh Microfiber towels for drying. Please use caution as these towels are made partially with polyester (*which is plastic*) which can break down over time from extended use and washing, eventually causing damage to the clear coat finish.

IMPORTANT

Never use a strong solvent, such as lacquer thinner or harsh abrasives, on any of the exterior painted surfaces.

Waxing

The exterior finish will require a routine waxing. When water will not bead and roll off a freshly washed vehicle, a new coat of wax is needed. Wax not only improves the appearance of the vehicle, but it also protects the finish against oxidation and corrosive materials. The recommended type of wax is one that is compatible with painted or gel-coated fiberglass finishes, and contains a UV (ultra-violet) inhibitor. Buffing with a polishing compound will improve a dull or discolored finish. Review the BASF information provided with your unit for detailed paint care instructions.

IMPORTANT

When using a polishing compound that does not contain a wax preservative, reapplying a coat of hard wax after polishing is recommended.

Seals

The seals around doors, windows, vents, slide out trim and external seams should be checked at least twice a year. In addition, the roof seams should be inspected twice a year for cracking or peeling. If deterioration is noted during a routine maintenance inspection, reseal the seams or seals with an approved sealant to prevent leaks. It is recommended that a Newmar Authorized Service Center perform these inspections, and reseal when necessary.

Proper Sealants for Application

Proper Sealants for Application	
Plas-T-Cote	Metal or fiberglass roof
Surebond #SB-140	Rubber laminated to metal roof and all skylights.
Carlisle #502-LSW	Rubber roof over wood Base
Self-Leveling Sealant Silicone Sealant	To cover butyl and other sealants; not to be used as the main sealant
Parbond	To seal across tops of windows, etc. on exterior where silicone is not used

Fiberglass Roof

WARNING

It is recommended that access, cleaning and maintenance be conducted by a qualified professional at your local dealership. Use caution if working on top of your vehicle. The wet roof surface is extremely slippery.

Your motorhome is equipped with a one piece fiberglass roof. Regular cleaning and maintenance is essential to insuring a long, trouble free life. Before cleaning, it is important that you inspect the sealants and gaskets used to seal components to the roof structure to be certain there is no leakage during the cleaning process. Any cracks or voids in the sealants and seals **MUST** be repaired prior to spraying the roof with water.

The surface of the fiberglass roof has a gel coat finish that is very similar to the paint on the exterior of your unit. This provides a bright, durable finish that is easy to maintain. Around the perimeter of the roof is a textured area designed to provide better traction while walking on the roof. **Great care should be taken when walking on a roof that is wet, as the surface can be extremely slippery.**

It is also important to make sure the roof drain catch basin strainers are cleaned and kept free of debris. There are four (4) of them, and they are located at the front and rear ends of the roof gutters, on both the left and right sides.

Clean the roof with a mild detergent and soft brush, such as you would use to wash the exterior of your unit. Stubborn stains, like tree sap or bird droppings, may require additional scrubbing. Do not use harsh chemicals, or any caustic or acid based solutions for cleaning. Standard household cleaners diluted in water and applied with a soft bristle brush provide the best cleaning action.

Rinse with clear water, taking care not to spray directly into roof vents, air conditioners, the refrigerator chimney, or and other roof mounted accessories.

Battery Inspection & Care

Remember that when batteries are not used for an extended period of time, they may lose their charge. Periodic charging of the batteries during storage of the unit will increase the life of the battery. Check the external condition of the battery periodically. Look for cracks in the cover and case. Check the vent plugs and replace them if they are cracked or broken. Keep the battery clean. Accumulations of acid film and dirt may permit current flow between the terminals, which could drain the battery.

WARNING

Remove rings, metal watch bands, and other metal jewelry before working around batteries. Use caution when using metal tools. If a tool contacts a battery terminal or metal connected to it, a short circuit could occur which could cause personal injury, explosion or fire.

CAUTION

Disconnect the 120 volt electrical power cord and the negative terminal from the coach batteries before working on the electrical system.

Remember that when batteries are not used for an extended period of time, they may lose their charge. Periodic charging of the batteries during storage of the unit will increase the life of the battery. Check the external condition of the battery periodically. Look for cracks in the cover and case. Check the vent plugs and replace them if they are cracked or broken. Keep the battery clean. Accumulations of acid film and dirt may permit current flow between the terminals, which could drain the battery.

To clean, wash the batteries with a diluted solution of baking soda and water to neutralize any acid present. Rinse thoroughly with clean water. Foaming around the terminals or on top of the battery is a sign that acid is being neutralized. Avoid getting the baking soda solution in the battery. Secure all vent caps. Dry the battery cables and terminals to prevent corrosion. Do not use grease on the bare metal inside the cable terminals as it can act as an insulator, and electricity will not flow through it. A plastic ignition spray will protect the terminals after they have been cleaned.

WARNING

Do not allow the battery fluid to contact your skin, eyes, fabric, or painted surfaces. The fluid could cause serious personal injury or property damage. Wear eye protection when working with any battery.

The batteries should be removed and stored in a warm place when not using your motorhome for an extended period of time. Mark the cables, positive and negative, for easy identification. Batteries are not to be stored on concrete floors. If the motorhome is to be stored for a long period of time, it is recommended that all of the batteries inside the unit be removed from clocks, radios, smoke alarms, etc. This will prevent unnecessary drain and corrosion of the batteries. The coach batteries are 6 volt RV/Marine deep cycle batteries. This type of battery consumes water and must be filled periodically. Please be sure to check the battery water level on a regular basis. Consult the owner's manual supplied by the battery manufacturer.

Alloy Wheels

Your motorhome is equipped with Accuride Aluminum "Alloy" Wheels. Below is the manufacturer's recommended cleaning procedure:

1. Rinse the wheel with high pressure water to remove any debris, grit, or dirt particles. High pressure water is recommended.
2. Use a 100% cotton cloth dipped in a mild soap (dish soap or automotive auto wash soap) to help remove stuck on road dirt and grease.
3. Thoroughly rinse any remaining soap residue from the wheel.
4. Dry the wheel thoroughly with a 100% cotton cloth.

IMPORTANT

To insure damage does not occur to your alloy wheels while cleaning, the following list must be adhered to:

1) DO NOT scrub the wheels before rinsing off loose particles with high pressure water; rubbing debris against the wheel surface will scratch it.
2) DO NOT use synthetic cleaning pads; synthetic cleaning pads can result in streaking on the surface of the wheel.
3) DO NOT use wire brushes to remove dirt or grime from the wheel surfaces.
4) DO NOT use strong detergents, strong solvents, acidic or alkaline cleaners to clean your alloy wheels. These solutions can attack the finish on the surface of the wheel, causing damage or dull spots in the finish.
5) DO NOT allow soap solutions to dry on the surface of the wheel; be sure to rinse and thoroughly them after cleaning.
6) DO NOT use polishes or waxes on an Accu-shield aluminum wheel. The finish will maintain its bright, shiny surface for years to come without the need for special polishes.

INTERIOR CARE

WARNING

Urea-formaldehyde is used in the productions of particle board, hardwood plywood, and most paneling. Urea-formaldehyde resin may release formaldehyde vapors into the air, which may cause headaches, and in some people, eye, nose and throat irritation. Formaldehyde may intensify some allergies or upper respiratory problems like asthma. Providing proper ventilation as needed by operating the power roof vents and opening windows should reduce the risk of such problems.

IMPORTANT

The fading of upholstery, carpet and other interior fabrics is generally caused by excessive sunlight. The drapes, blinds or shades should be kept closed when the vehicle is parked for an extended period of time to minimize the fading. Normal deterioration of appearance items due to wear and/or exposure is not covered by the Newmar Limited Warranty.

Carpet

A weekly routine of vacuuming the carpet and fabrics throughout the vehicle is recommended. Doing this will prevent an accumulation of dirt that can detract from the materials appearance and shorten its life. Remember to empty or replace vacuum bags before they become half full. In carpet areas that receive the most sunlight, close the curtains frequently to prevent fading. And act quickly when anything is spilled or dropped on the carpet.

Included in the Owner's Information Package is the carpet manufacturer's Carpet Care Guide. The Carpet Care Guide lists detailed information on cleaning soiled areas and removing stains from the carpet installed in the unit.

Fabrics

The fabrics used in this motorhome for the bedspread, draperies, headboard and valances contain fire-retardant additives that may be damaged by use of improper cleaning products. Cleaning instructions for these items are DRY CLEAN ONLY. Water-based products are not recommended for cleaning the fabrics in your new unit. Most water-based household cleaning products are not formulated for use on these fabrics and may cause excessive shrinkage or fading. For best results, the fabrics in this unit should be cleaned by a professional carpet and upholstery cleaner.

Spills, spots or stains should be treated as soon as possible to avoid permanent damage. If a spill occurs, blot the fluid with a dry towel. Do not rub the spill. Rubbing may cause the liquid to "set" in the fabric. When attempting to clean a spot or stain, always start from the outside and work inward to avoid spreading it further.

Some stains or soils are extremely difficult or impossible to be removed completely. These should receive immediate, professional attention. Spills, spots, stains or soils are the responsibility of the owner, and are not covered by the Newmar Limited Warranty.

WARNING

When cleaning the upholstery and fabric in the unit, do not use lacquer thinner, nail polish remover, laundry soaps or bleach. Never use carbon tetrachloride or gasoline for cleaning purposes. These items may cause damage to the materials being cleaned, and most are highly flammable.

Walls & Ceiling

The wall and ceiling coverings should be cleaned periodically to maintain a new appearance. Use a non-abrasive cleaner with a soft cloth on the walls.

Do not—

- Use solvents of any kind. Solvents may damage the surface.

Dash

In order to keep the dash in like-new condition, follow these guidelines:

Do—

- Dust and clean the dash with a soft, damp cloth, or chamois, wiping the surface gently.
- Use a mild detergent and lukewarm water.
- Dry the surface, after washing and rinsing, by blotting with a damp cloth or chamois.

Do Not—

- Use harsh chemicals that may damage the dash.
- Use cloths containing grit or abrasive particles or kitchen scouring compounds to clean or dust the dash.
- Subject the dash to hard, direct blows.
- Use boiling water, strong solvents or other materials listed below to clean the dash, as they will soften the plastic.

Woodwork

The wood cabinetry should be cared for with furniture polish to sustain the natural beauty and luster of the wood. This will also keep your cabinetry looking new, and prevent the wood from drying. Use of area rugs and floor mats by the entrance door is recommended to trap dirt. To clean the flooring, begin by vacuuming the floor to remove loose dust and dirt. Then, damp mop the floor using one gallon of clean, warm water with a non-abrasive, soap-free cleaner. The mop should be damp, not dripping. Do not use soap-based cleaners, scouring powders, steel wool, abrasive cleaners, wax or polish on the floor. To remove stubborn spots like shoe polish, oil, tar, markers, scuffs, etc., use a household solvent, acetone or nail polish remover, then wipe with a damp cloth. To remove chocolate, grease, juice or wine, use warm water and a non-abrasive cleaner.

To remove candle wax or chewing gum, carefully scrape off when the material has hardened. For further tips, please see the manufacturer’s information sheet in your Owner’s Information Packet.

Counter Tops

To properly care for the countertop in your new unit, always use a heat pad or trivet to protect the surface from hot objects that may mar or damage the surface. Also avoid cutting directly on the surface and avoid using harsh chemicals on the counter top. Wipe the counter top with a damp cloth to remove water spots. For most dirt and stains, wipe with a damp cloth and use soapy water or ammonia-based cleaners.

Accessories

Your motorhome is equipped with brass or brushed nickel light fixtures, bath accessories and faucets. They are cleaned by wiping with a soft, damp cloth. Washing with warm water will remove dry water spots. Do not use cleaners that contain harsh or abrasive chemicals. Alcohol or similar solvents should never be used.

Detectors

The CO and Propane detectors (if equipped) are self-contained and DO NOT require any maintenance other than normal cleaning and dusting. The smoke detector installed in this coach is 9 volt battery operated. The battery needs to be tested periodically and replaced when necessary. When cleaning the case on any of the detectors, use a damp cloth or paper towel. Do not spray cleaners or wax directly into the case as it may cause false alarms.

Condensation

IMPORTANT

Since surface condensation within the coach cannot be controlled by the manufacturer, damage caused by condensation is not covered by your Newmar Limited Warranty.

Damage may occur to your unit if excessive condensation exists. Accumulation of condensation on surfaces within your unit occurs when warm, moist air contacts a cool surface. It is most evident on the inside of windows. This problem can be controlled by:

1. Slightly opening a window or roof vent to allow the moisture to escape from the unit.
2. A small dehumidifier is also very effective in removing moisture from the air.

IMPORTANT

- Condensation levels are highest during times when a person is cooking or taking a shower in the unit, but these are not the only times condensation is present.
- Condensation can migrate through ceiling panels and saturate the fiberglass insulation in your ceiling cavity. This condition often causes the occupants to believe the recreational vehicle has a roof leak. Walls and ceiling panels may also become wet when the moisture accumulates on these surfaces.
- Newmar Corporation does not recommend the use of any catalytic heaters.

ROUTINE MAINTENANCE

IMPORTANT

Always follow the chassis maintenance guidelines found in the chassis manufacturer owner's manual.

All routine maintenance is the responsibility of the owner and is not covered by the Newmar Limited Warranty. Please note that damage caused by improper or unapplied maintenance is not covered by the Newmar Limited Warranty.

Items supplied by other manufacturers may require specific individual maintenance not listed herein. Please refer to the manufacturers' suggested maintenance guidelines in the Owner's Information Packet.

IMPORTANT

Cosmetic adjustments and alignments must be performed within the first three (3) months from date of original purchase for warranty consideration. Thereafter, these items are considered routine maintenance.

Monthly

- Check battery water level.

Every Three (3) Months

- Clean range hood exhaust fan filter and blades.
- Check gas lines for leaks with soap solution or leak detector.
- Test smoke alarm, carbon monoxide detector and Propane gas detector.
- Check operation of windows, latches and hinges.
- Clean the roof ducted air conditioner filter(s).
- Clean and inspect all door and window seals; reseal where necessary.
- Inspect and reseal around the tub and shower area where necessary.
- Lubricate the exterior door hinges and latches with a graphite (silicone) lubricant.
- Check, clean and tighten battery cables, and inspect batteries for proper fluid level.

Every Six (6) Months

- Inspect the slide out for proper seal. If realignment is necessary, please contact an Authorized Newmar Service Center.
- Inspect the exterior rubber slide out seals and apply a UV inhibitor,
- Rotate tires as recommended by the tire manufacturer.
- Check all gas appliances for proper operation.
- Have the Propane system inspected by a qualified technician.
- Lubricate the moveable parts on the entrance step.

Annually

- Inspection of roof seams and joints should be performed by an Authorized Newmar Service Center. If resealing is necessary, it is the owner's responsibility and is not covered by the Newmar Limited Warranty.
- Sanitize the fresh water system.
- Wax and buff all gel-coat surfaces on the vehicle as described previously in this chapter.

COLD WEATHER USE

Although great care has been taken to build a well-insulated unit, recreational vehicles are not intended for extended use in subfreezing weather without special precautions. When the temperature drops below freezing, the furnace must be turned on to keep the unit warm. Continued use in cold weather will require the unit to be winterized.