

OWNER'S MANUAL

95

LAND YACHT
CLIPPER

By Airstream

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INTRODUCTION

The Owners Manual for your new Airstream Motorhome is designed to answer the most commonly asked questions regarding the operation, function and care of the many systems that make modern motorhoming a joy.

Airstream realizes our customers possess varying degrees of expertise in the area of repairing and maintaining the appliances in their motorhome. For this reason, the service and trouble-shooting information found in this manual is directed toward those with average mechanical skills. We also realize you may be more familiar in one area than you are in another. Only you know your capabilities and limitations.

We want you to use this manual, and hope you will find the information contained in it useful; however, should you ever feel you may be "getting in over your head" please see your dealer to have the repairs made.

All information, illustrations and specifications contained in the literature is based on the latest product information available at the time of publication approval.

Throughout this manual **CAUTION** and **WARNING** notations are used. Failure to observe "caution" can damage equipment. "Warning" notes the possibility of personal injury if not observed.

Note: If and when new materials and production techniques are developed which can improve the quality of its product, or material substitutions are necessary due to availability, Airstream reserves the right to make such changes.

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AIRSTREAM, INC.

LIMITED WARRANTY

AIRSTREAM LAND YACHT MOTORHOME

Warranty Coverage

When you buy a new Airstream Motorhome from an authorized Airstream dealer, Airstream, Inc., warrants the motorhome from defects in material and workmanship as follows:

Warranty Period

The Warranty is for 12,000 miles (20,000 Kilometers) or one year, whichever occurs first, beginning when the vehicle is delivered to the first retail purchaser or first placed into demonstrator service. This warranty must have been started prior to the accumulation of 4,000 miles in order to be valid.

Items Covered

Any part of the motorhome or any component equipment installed by the factory is covered by the warranty except the following items which are not covered:

- * Automotive Chassis
- * Battery
- * Fuses and Light Bulbs
- * Video Recorder
- * TV and Radio
- * Backing Monitor
- * Microwave Oven
- * Tires
- * AC Power Plant

The above items will be handled by their respective service points and according to their written policy. This limited warranty does not include failure caused by accident, abuse, normal wear, overload or any cause not attributable to a defect in original material or workmanship of the motorhome or component equipment as installed by the factory.

Limitation of Implied Warranties

All warranties of merchantability and fitness for a particular purpose, whether written or oral, express or implied, shall extend only for a period of one year from the date of original purchase, or 12,000 miles, whichever comes first. There are no other warranties which extend beyond those described on the face hereof and expressly excludes conditions resulting from normal wear, accident, abuse, exposure or overload. Some states do not allow limitation on how long an implied warranty lasts, so the limitation may not apply to you.

Airstream's Responsibility

The Airstream Limited Warranty applies for a period of one year from the date of original purchase, or 12,000 miles, whichever occurs first, and the applicable date of all warranties is that indicated on the Owner's Identification Card. Defects in items covered under this warranty will be corrected without cost upon the return at the owner's expense of the motorhome or defective part to an authorized Airstream dealer.

Care and Maintenance

This warranty covers only defective material and/or workmanship; adjustments and checking are excluded. All adjustments are made at the factory prior to shipment, and rechecked by the dealer prior to delivery to the customer. An additional checkup, including adjustments, is given at the 1,000 mile or 60 day inspection. Adjustments thereafter become a customer responsibility.

The owner is also responsible for following all recommendations, instructions and precautions contained in the Airstream Owner's Manual and the individual manuals furnished by the chassis, appliance and other manufacturers.

Installations not Covered

Airstream, Inc., does not accept any responsibility in connection with any of its motorhomes for additional equipment or accessories installed at any dealership or other place of business, or by any other party. Such installation of equipment or accessories by any other party will not be covered by the terms of this warranty.

If Repairs are Needed

If your motorhome needs repairs under the terms of the Airstream Limited Warranty, you should:

1. Take your motorhome to your selling dealer or other authorized Airstream dealer.
2. If the dealer is incapable of making the repair, request that he contact the Service Administration Department at Airstream, Inc., for technical assistance.
3. If repairs are still not made, the customer should contact Airstream, Inc., 419 W. Pike Street, Jackson Center, Ohio 45334, Attention: Owner Relations Department, and furnish the following information.
 - * The complete serial number of the motorhome
 - * Mileage
 - * Date of original purchase
 - * Selling dealer
 - * Nature of service problem and steps or service which have been performed. (The owner may be directed to another dealer at the owner's expense.)
4. If, after taking the above steps, repairs are still not complete, the Airstream owner may request the motorhome be allowed to be brought to the Factory Service Center at the owner's expense.

Dealer Representation Excluded

The full extent of Airstream's Limited Warranty is set forth in detail in this folder, and in the Explanation of Airstream Limited Warranty covered in the Airstream Motorhome Owner's Manual. Airstream, Inc., will not be responsible for additional representations or implied warranties made by any of its dealers to the extent those representations are not a part of, or are contrary to, the terms and conditions of the Airstream Limited Warranty.

Consequential and Incidental Damages

Airstream, Inc., will not be responsible for any consequential or incidental expenses or damages resulting from a defect. Incidental expenses include, but are not limited to, travel expenses, gasoline, oil, lodging, meals, telephone tolls, loss of work and loss of use of the motorhome. Some examples of consequential damages would be: stained curtains due to rain leaks or delaminated floor caused by a plumbing leak. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Warranty Transfer

This limited warranty is transferable to subsequent owners for the duration of the warranty period. Warranty transfer application forms are available from your dealer or the Airstream, Inc., Service Administration Department.

Changes in Design

Airstream, Inc., reserves the right to make changes in design and improvements upon its product without imposing any obligation upon itself to install the same upon its products theretofore manufactured.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Thor Industries
Airstream, Inc.
419 West Pike
Jackson Center, Ohio 45334
513-596-6111

WARRANTY EXPLANATION

Along with your new Airstream motorhome you have purchased the Airstream Limited Warranty. Read your Limited Warranty carefully. It contains the entire agreement with respect to Airstream's obligation on the Limited Warranty on your new vehicle. The terms of the Limited Warranty, and only those terms, will define Airstream's responsibility. When you receive your Limited Warranty file it for safekeeping.

Upon proof of purchase date to any Airstream Dealer Service Center, defects in materials or workmanship will be repaired or replaced without cost to the owner for a period of twelve (12) months from the original purchase date, or 12,000 miles, whichever occurs first. Written warranties of some manufacturers of components of the motorhome will be honored by Airstream for the duration on that manufacturer's warranty.

Items such as motorhome chassis, engine, tires, batteries and generator are serviced by their respective manufacturers and will be handled by their service centers according to the terms of their written policy. Any warranty forms from these manufacturers should be completed promptly, preferably at time of purchase.

Your motorhome chassis is prechecked by its manufacturer before delivery to Airstream. All service to the chassis must be performed by the manufacturer according to the manufacturer's warranty and service policies. Literature is supplied with each Airstream motorhome which gives important information concerning its warranty coverage; however, the Airstream Limited Warranty covers the chassis heater, defrosters, windshield wiper blade, motor, washer, LP gas bottle and gas regulator.

Paint and appearance items which show imperfections should be brought to the attention of your dealer at the time of delivery and during pre-delivery inspection. Normal deterioration by use and exposure is not covered by the Airstream Limited Warranty.

Damage to enameled or porcelain surfaces resulting from abrasion, collision or impact, and broken window glass is not covered by the Airstream Limited Warranty.

The Airstream Limited Warranty Excludes:

Normal Wear

Items such as water purifier packs, curtains, upholstery, floor coverings, window, door and vent seals may show wear within the one year Limited Warranty period depending upon the amount of usage, weather and atmospheric conditions.

Accident

Damage caused by accident is usually visible, and we strongly urge our dealers and customers to inspect the motorhome upon delivery for any damage caused by accident while being delivered to the dealer, or while it is on the dealer's lot. Damage of this nature becomes the dealer's or your responsibility upon acceptance of the motorhome. GLASS BREAKAGE, whether obviously struck or mysterious, is always accidental and covered by most insurance policies.

Abuse

Lack of customer care and/or improper maintenance, including failure to comply with the terms of the Owner's Manual, or failure to heed proper vehicle operation shown by the dash instruments are not covered by warranty.

Exposure

Deterioration by sunlight is possible to such items as tires, curtains or upholstery. Steel or metal surfaces are subject to the elements, causing rust and corrosion which is normal and beyond the control and responsibility of Airstream.

Overload

Damage due to loading beyond capacity or to cause improper balance is not covered by the Airstream Limited Warranty. The Airstream motorhome body is engineered to properly handle any normal load. There are limits to the amount of load that can be safely transported depending upon speed and road conditions. If these limits have been exceeded the Airstream Limited Warranty will not cover resulting damage. For additional information on the load capacity of your motorhome consult your Owner's Manual or gross vehicle weight rating plate. The motorhome alignment is checked during the last quality inspection. These tolerances will only change if the motorhome is subjected to abuse, such as dropping off a sharp berm, striking a curb, or hitting a deep hole in the road. Such damage would be considered as resulting from an accident which risks are not covered under the warranty. Abnormal tire wear and/or wheel alignment resulting from such damage is not covered under the terms of the warranty.

SERVICE

The Airstream Silver Key Delivery Program is an exclusive Airstream program. Before leaving the factory each and every vital part of the motorhome is tested for performance. Each test is signed and certified by an inspector. After the motorhome arrives on your dealer's lot all of these vital parts and systems are again tested. When you take delivery of your new motorhome you will receive a complete checkout.

Please contact your dealer if you need service. Major service under your Airstream Limited Warranty is available through our nationwide network of Airstream Dealer Service Centers. An up-to-date list of Dealer Service Centers has been provided with your new motorhome. This list is current as of the date of publication.

Occasionally dealerships change, or new dealers are added who may not appear on this list. For this reason, it is suggested that you contact your local dealer from time to time and bring your list up to date. He can also provide you with additional copies if you need them.

ALL CENTERS OPERATE ON AN APPOINTMENT BASIS FOR THE UTMOST EFFICIENCY.

When you require service from the Airstream Factory Service Center or a Certified Dealer Service Center please contact the service manager for an appointment, and kindly inform him if you are unable to keep the appointment date or wish to change it.

Service may be arranged at the Factory Service Center by contacting the Service Coordinator at:

Airstream Factory
Service Center
419 W. Pike Street
Jackson Center, Ohio 45334
Phone: 513-596-6111

You Should Also be Aware of the Following:

Airstream is not responsible for any consequential or incidental damages incurred as a result of any defect. Consequential damages include, but are not limited to, travel expenses, gasoline, oil, lodging, meals, telephone tolls, loss of work and loss of use of the motorhome.

In the event of a defect, the owner must take all reasonable corrective action to lessen the damages which might result from such defect. Airstream will not be responsible for damages which could have been avoided.

Airstream's responsibility is defined solely by the Airstream Limited Warranty and Airstream is not responsible for or bound by representations or warranties made by any of its dealers.

Your Airstream Limited Warranty is transferable to subsequent owners of the motorhome, but only for the duration of the warranty period. Warranty transfer application forms are available from your dealer or the Airstream factory.

REPORTING SAFETY DEFECTS

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

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

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

MAINTENANCE SCHEDULE

Note: See automotive chassis and appliance manufacturer's literature for further information.

EVERY 1000 MILES OR 30 DAYS

Escape Window	Check operation of latches and upper hinge
Battery (lead-acid)	Check water level
Smoke Alarm	Test and replace battery as required
Tires	Check tire pressure (95 psi)
GFI Circuit Breaker	Test and record

EVERY 5000 MILES OR 90 DAYS

Exterior Door locks	Lubricate with dry graphite
Exterior Hinges	Lubricate with light household oil
LPG Regulator	Check bottom vent for obstructions
Main Door Striker Pocket	Coat with paraffin
Wheel Lug Bolts	Torque to 450-500 lb.-ft.
Range Exhaust Hood	Clean fan blades and wash filter
Roof Vent Elevator Screws	Lubricate with light household oil
Main Door Step	Lubricate moving parts and check

EVERY 10,000 MILES OR 6 MONTHS

Exterior	Clean and wax
Hitch	Check bolts and welds (90 ft-lb)

EVERY YEAR OR 12,000 MILES

Battery	Clean, neutralize and coat terminals with petroleum jelly
LP Tank	Have purged by LP supplier
Seams	Check seal on exterior seams, windows, lights, and vents. Reseal with Sikaflex, aluminum gray. Airstream part number 360180 or equivalent as needed.

MAINTENANCE RECORDS

Date	Dealer	Service Performed

DRIVING

WIDE BODY LIMITATIONS

Vehicles with overall body width greater than 96" are known as "wide bodies". Wide body vehicles are restricted to use on main highways in certain states. A vast majority of states allow 102" body width on all highways, but wide body width is now allowed on all federal highways in the United States. Your dealer may be able to furnish more specific information. If you are concerned about vehicle width, we invite you to consider other fine Thor vehicles offered in the standard 96" width.

LOADING

The Gross Vehicle Weight Rating of your motorhome is 29,500 pounds. This figure is the maximum weight the chassis is designed to carry.

The approximate weight of your motorhome with gas is 23,000 pounds. If you buy all the options it will weigh more and that cuts into the amount of load you can carry.

This motorhome has large fluid tanks and lots of storage areas. It gives you great flexibility in loading. With flexibility comes responsibility. If you want to load down all the storage compartments the amount of fluids will have to be reduced.

Do you really want to carry 750 pounds of water to a RV park 1,000 miles away and then hook up to a city water supply anyhow? Even if you're going to the "boondocks" you can usually fill your water tank shortly before entering the area. Just reducing your load by 10 gallons of water lets you carry an awful lot of fishing and camping gear.

For reference, water weighs 8.33 pounds per gallon and diesel fuel weighs about 7 pounds to a gallon.

SAFETY CHECK LIST

Your Airstream motorhome should be given a thorough safety check before a trip. Regular use of the following list will provide safe operation of your motorhome and will help you spot any malfunctioning equipment and correct the problem as soon as possible.

FAILURE TO HEED MANY OF THE FOLLOWING ITEMS MAY CAUSE DAMAGE TO THE VEHICLE OR PERSONAL INJURY.

EXTERIOR CHECK LIST (BEFORE ENTERING VEHICLE)

1. Check condition of tires for proper inflation.
2. Turn off LPG valve on LPG tank.
3. Check that sewer connection, all external compartments and filler openings are properly stowed or closed and/or locked.
4. Check that items stored on exterior of vehicle are securely tied down.
5. Would any items stored on exterior of vehicle present a clearance problem?
6. Lower and secure awnings, TV antenna and roof vents.

INTERIOR CHECK LIST (BEFORE DRIVING OFF)

1. It is important that the main door and cab door be completely closed and locked during travel. This includes locking the dead bolt.
2. Turn off living area water pump.
3. Check that refrigerator door is fastened.
4. Check that nothing heavy is stored in overhead or high cabinets which could fall out and cause injury. Heavy items should be stored in low cabinets.
5. Stow folding and pedestal tables.
6. Check that countertops, range top, credenza tops and shelves are clear of even small items that could become projectiles in an accident.
7. Do not cook while underway. Hot food or liquid could scald due to a sudden stop or accident.
8. Check that any internal stowage is securely held in place.
9. Check that lights and switches are set in positions safe for travel.
10. Adjust the driver's seat so that you can easily reach and operate all controls. Make sure seat is locked in position. Do not adjust driver's seat swivel or fore and aft mechanism while vehicle is moving. The seat could move unexpectedly causing loss of control.
11. Check that front passenger's seat is locked in position - both fore and aft adjustment and swivel mechanism.
12. Check rear view mirror adjustment, inside and outside. Adjust curtains if necessary for maximum visibility.
13. Fasten lap belts.
14. Check that step light goes out and that electric step has retracted.

SAFETY SEAT BELTS

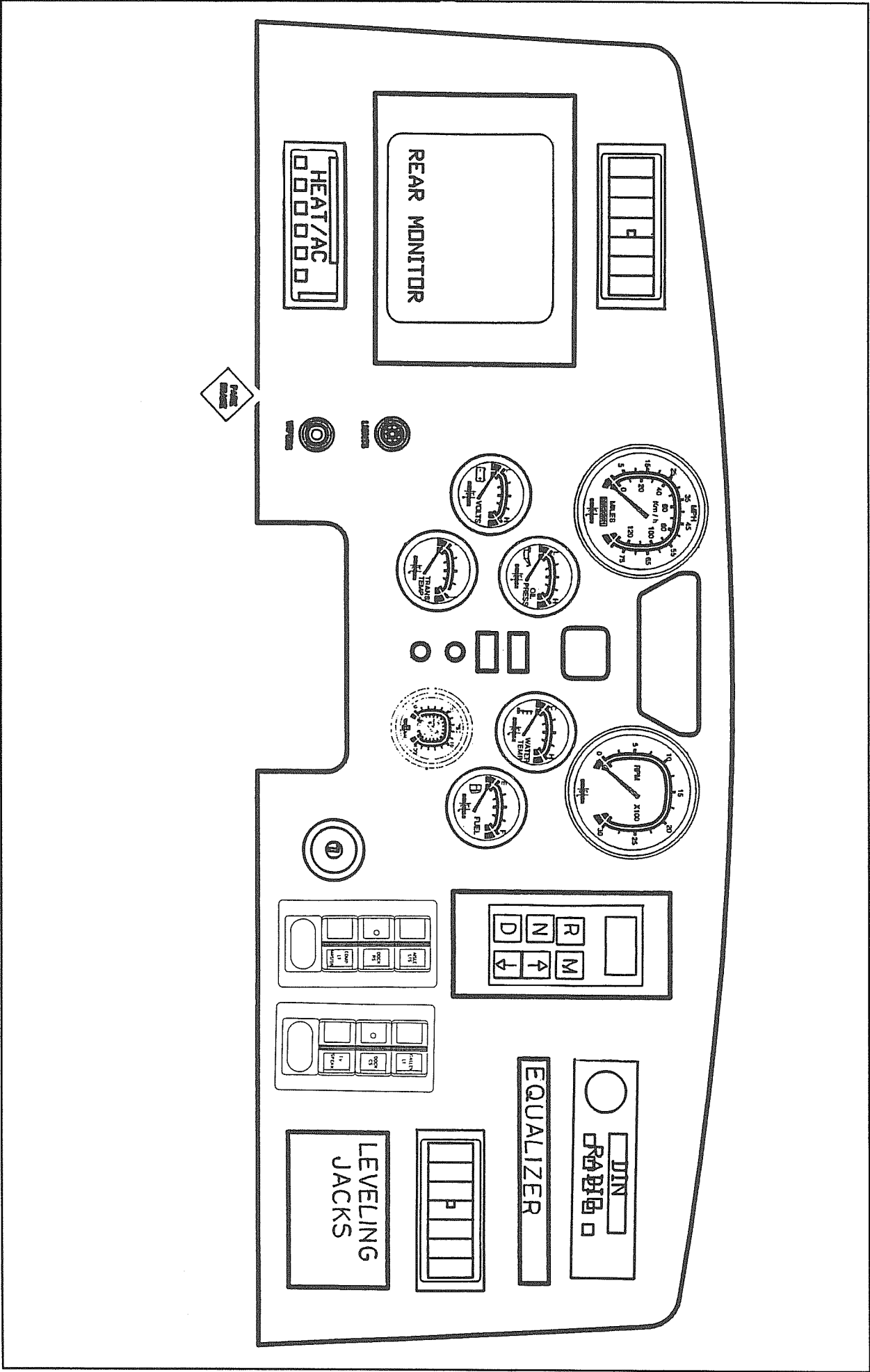
In the forward driver's area of the motorhome, safety seat belts are provided for the use of the driver and the right front passenger. Safety belts are available for other seats. It is strongly recommended that all occupants remain seated with their safety belts firmly attached while the motorhome is in motion. The driver should adjust his seat so that he is able to reach all controls easily with the belt on, especially able to use all the travel on the foot brake. The belt should be placed as low as possible around the hips to prevent sliding out from under them in case of accident. This places the load of the body on the strong hip bone structure instead of around the soft abdominal area. Two people should never try to use the same seat belt.

WARNING: Children must be secured in a Federally Approved Child Restraint Device. Failure to use proper restraints can result in severe or fatal injuries in case of accidents.

Child restraint devices are designed to be secured with lap or lap/shoulder belts. All instructions supplied by the restraint manufacturer must be followed. Statistics have shown children are safer when properly restrained in a rear seating position than in a front seating position.

Often the children traveling in motorhomes are grandchildren. There are times when our love for grandchildren makes us hesitate to properly supervise their actions. Don't hesitate when it comes to their safety. Make sure they are properly restrained.

CHILDREN HAVE LOVED ONES TOO....IF YOU WON'T BUCKLE UP FOR YOURSELF, BUCKLE UP FOR THEM.



AIRSTREAM DASH CONTROLS

Most automotive gauges and controls are standard Oshkosh instruments. Their function and use is described in your Oshkosh Drivers Manual. The exception on automotive controls is the heater/air conditioner, which is include with the following Airstream information.

DASH AIR CONDITIONER/HEATER

Acme Radiator Air Conditioning, Inc.
17103 St. Rd. 4E
Goshen, Indiana 46526
800-552-2263

OPERATION

The operation of your dash air conditioner/heater is practically identical to those found in most automobiles. Three controls are involved. The fan switch varies the amount of air flow through the system. The "mode" controls between heat, air conditioning, defrost, floor and panel. So mode not only determines the part of the system you want to use but also the area where either the hot or cold air will be vented into the coach. If you want the air flow to be vent or bi-level but without air conditioning, depress the appropriate button, then pull it out. The air flow will be at the desired location and pulling the button out disengages the air conditioner compressor. The temperature control lever controls the amount of hot water being allowed to flow through the heater core.

SERVICE

Acme has requested you to call them on the 800 number listed above should you experience any service problems. They are usually able to help get any repairs needed at an air conditioner repair facility close to your location.

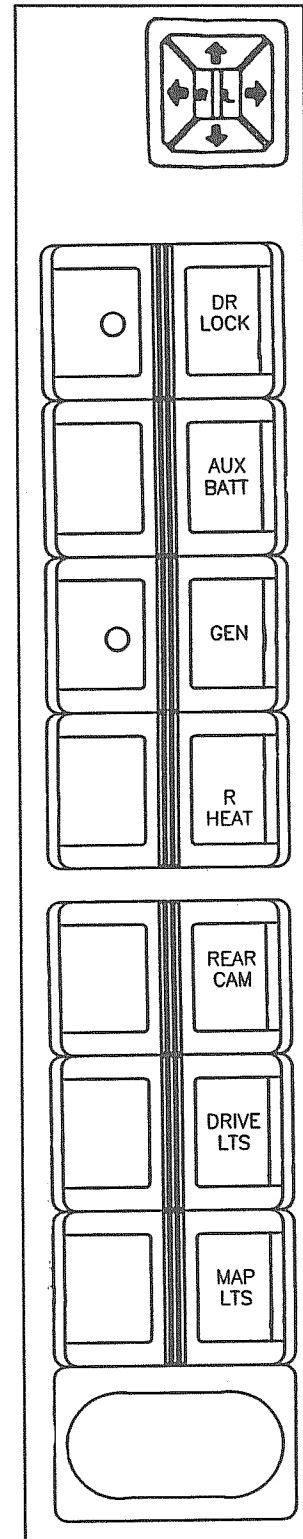
DASH SWITCHES, AIRSTREAM

- **Aisle Lights** - The low aisle lights will allow passengers to converse without using overhead lights that could be bothersome to a driver at night.
- **Docking Lights RS (roadside)** - The docking lights illuminate the area at the side of the motorhome and are intended for use when parking in a campground at night.
- **Compartment Light Master Switch** - All lower compartment lights can be operated simultaneously from this switch.
- **Galley Light Switch** - Some drivers like to be able to turn lights on and off for their passengers. If this doesn't interest you, simply leave the switch on and the galley light will function with its own switch.
- **Docking Lights CS (curbside)** - The docking lights illuminate the area at the side of the motorhome and are intended for use when parking in a campground at night.
- **Television Speaker** - The television has a stereo mode. If the program is in stereo, operating this switch will engage the multiple speaker system wired in for the radio/tape player.

ARM REST SWITCHES

- **Flood Light** - (Not shown) Two switches control the operation of the search lights. The left hand switch controls the directional movement of the lights. Move it up or down, right or left, and the light will move in the same direction. The right hand switch illuminates the light in either spot light or flood light mode.

- **Mirror** - Move center switch to R or L. The four perimeter switches will then move the right or left mirror in the direction indicated.
- **Door Lock** - The main door can be locked or unlocked from the drivers seat. Remember to hide an extra door key on the exterior in case of unexpected battery failure.
- **Auxiliary Battery** - The auxiliary start switch is intended to be used if the engine battery becomes to discharged to turn the engine over. To operate, hold the switch in the start position, then use the ignition switch in a normal fashion. Operating the auxiliary start switch closes the points on a large solenoid, tying all three vehicle batteries together for increased starting power. Leaving the switch in the auxiliary position will allow the convertor to charge the engine battery when you are plugged into 110 volt power. The down side of this feature is the engine battery will also run down if an interior light is left on. Just use the feature when needed - - then turn it off.
- **Generator Switch** - The remote generator switch on the dash allows the driver to start or stop the generator without leaving the driver's seat. It should be noted a built-in time delay allows the generator to reach full operating speed before 120 volt current is provided to the coach.
- **Rear Heat** - This switch is two speed and controls the fan on the rear engine heater by the door. The heat source is from the radiator so heat will only be available when driving.
- **Rear Camera** - The rear view monitoring camera has two positions. One will show the rear bumper and operating the switch tilts the camera to view further back.
- **Driving Lights** - To operate the driving lights the regular head lights must be turned on first.
- **Map Lights** - This switch illuminates the overhead lights in the cab area.



POWER SEAT CONTROLS

Power seat controls have three switches. The center switch moves the seat up and down, forward and back. The other two switches control the tilt of the seat. If the seat is run to the end of its movement in any direction a stall condition will exist and a 12 volt automatic circuit breaker will "kick-out" to avoid damage to the motors. If this occurs wait approximately 30 seconds and operate the switch in the opposite direction.

CAUTION: Revolving the power seat completely around will pull the wiring apart. The seats should only be swiveled toward the center of the vehicle. If the wires are loosened they can be reconnected by following the color code: Red to red, green to green, etc. On some models the wires will be on a plug that can be reattached.

WARNING: Never adjust drivers seat while vehicle is in motion.

TRAILER TOWING AND DRIVING TIPS

Since this vehicle is designed and intended to be used primarily as a load carrying vehicle, towing a trailer will affect handling, durability and economy. Maximum safety and satisfaction depends upon proper use of correct equipment and avoiding overloads and other abusive operation. Your Oshkosh manual also contains towing information.

CAUTION:

The maximum loaded trailer weight which you can pull with your vehicle is 4,000 lbs. Vehicles should be properly equipped for towing trailers. Information on trailer hauling capabilities and special equipment required may be obtained from your Airstream dealer.

To assist in attaining good handling of the vehicle/trailer combination it is important that the trailer tongue load be maintained at approximately 10% of the loaded trailer weight, but not to exceed 400 lbs. Tongue loads can be adjusted by proper distribution of the load in the trailer, and can be checked by weighing separately the loaded trailer and then the tongue.

When towing trailers, tires should be inflated to the highest pressures shown on the information plate attached to the drivers door jamb or dash of your motorhome. The allowable passenger and cargo load (GVW) of this vehicle is reduced by an amount equal to the trailer tongue load on the trailer hitch.

Trailer brakes are required on axles of trailers over 1,000 lbs. loaded weight.

CAUTION:

If your automotive chassis requires towing, please refer to their manual for directions.

CHASSIS

Your Airstream motorhome is built on a Oshkosh chassis. Operation of the engine and other related components is discussed in the their Owners and Drivers Manual supplied with each coach.

If repairs are needed it can be difficult to determine which parts of the chassis are warranted by Oshkosh, and which are Airstream's responsibility. The following list shows the major components of the chassis and the company responsible for their servicing.

Oshkosh V Line Chassis

Engine	Drive Axle and Hubs
Transmission	Shocks
Brakes	Automotive Fuse Panel
Steering Assembly	Parking Brake
Front Spindle, Bearings	Fuel Tank
Alternator	Cruise Control
Turn Signals	Wheels

AIRSTREAM

Auxiliary Heater	Air Horn
Dash Air Conditioner/Heater	Isolator
Windshield Wipers	

The above list covers almost all of the chassis components. If you need further clarification or information your dealer should be contacted with the details.

ELECTRIC STEP

Manufacturer: Kwikkee Products Company
Division of Ashton Corporation
P.O. Box 638
Drain, Oregon 97435
Phone: 503-836-2126

The step is easy and convenient to operate. Just inside the main door is a wall switch for the step. When traveling leave the switch in the "ON" position - the step will lower when the door is opened and retract when the door is closed.

When parked, open the door so the step is lowered, Then shut the switch off. The step will remain in the lowered position and the "step" light on the dash will be extinguished. If left on it will run your engine battery down in about a week.

If you forget and leave the switch off as you leave - No Problem! When the ignition is "ON" the wall switch is by-passed and the step will retract when the door is closed.

WARNING: If the wall switch is turned off, and the step is in the retracted position when the ignition is turned off, the step will not lower when the door is opened. Keep your passengers informed.

CAMPING

SAFETY

As always, safety should be one of your top priorities. Make sure you, and everyone traveling with you, can operate the main door and exit window rapidly without light.

WARNING: *The escape window (which is the rear, roadside window) is opened by pulling the red latch handles inward then pushing the bottom of the sash out. The pleated shade is opened by sliding it straight up. The window operation should be checked each trip.*

WARNING: *At each campsite make sure you have not parked in such a manner as to block the operation of the escape window by being too close to trees, fences or other impediments. Scenic views are one reason for traveling, but don't park so the beautiful lake or steep cliff is just outside your escape window.*

WARNING: *Read the directions carefully on the fire extinguisher. If there is any doubt on the operation, you and your family should practice, then replace or recharge the extinguisher. You will find your local fire department will be happy to assist you and answer any questions.*

WARNING: ***DON'T SMOKE IN BED!**
KEEP MATCHES OUT OF REACH OF SMALL CHILDREN!
DON'T CLEAN WITH FLAMMABLE MATERIAL!
KEEP FLAMMABLE MATERIAL AWAY FROM OPEN FLAME!*

We have all heard these warnings many times, but they are still among the leading causes of fires.

Other safety information on the LPG system of your motorhome is located in the Plumbing Section of this manual.

SMOKE DETECTOR

OPERATION AND MAINTENANCE

The Battery Powered Smoke Alarm operates on the ionization principle of fire detection. That is, the ionization chamber inside the unit monitors the air to detect particles of combustion present as a result of smoke.

When the small current inside the ionization chamber is decreased, indicating the presence of smoke, the alarm sounds.

Smoke Alarms only warn of a situation which may be potentially hazardous. No smoke alarm can eliminate the hazard.

Your Smoke Alarm requires very little maintenance.

The unit should be vacuumed occasionally to remove dust. Simply hold the nozzle of the vacuum near the alarm cover and the suction will remove any dust particles. (DO NOT TRY TO OPEN THE ALARM OR PLACE THE VACUUM NOZZLE INSIDE THE ALARM COVER.)

Battery Replacement

When the battery begins to weaken, a warning “chirp” will sound at least twice per minute for about a month. To replace the battery simply remove the alarm from the mounting bracket (turn counter-clockwise), remove the old battery and replace it.

*Model #105 with silencer provides a 15 minute pause button to quiet nuisance alarms. Perfect for confined areas (cooking areas, furnace rooms, etc.)

Carbon Monoxide Alarm

In the rear bedroom of your motorhome is a CARBON MONOXIDE detector. On the face of the detector is the statement “Additional Instruction on Back”.

Following are those instructions verbatim:

LED LIGHTS - GREEN - ON
RED - ALARM see steps to take during alarm
YELLOW - MALFUNCTION return immediately

USE 1 AMP. IN-LINE FUSE

WARNING: Carbon Monoxide cannot be seen or smelled and can kill you.

DANGER: Le monoxyde de carbone est incolore et inodore. L'inhalation de ce gas peut être mortelle.

STEPS TO TAKE DURING AN ALARM: 1) Press the reset switch. 2) Turn off all appliances and other sources of combustion at once (furnace, gas water heater, wood burning, or gas burning fireplace, stove and the like). 3) Evacuate the building/RV including pets. Open windows and exterior doors on the way out to get fresh air into the premises/RV. 4) Call the fire department. Do not return to the building or vehicle until the problem has been repaired.

MAINTENANCE: Keep ventilation openings dust free. Do not spray cleaners or chemicals directly onto the case. Refer to owner's manual for complete operation and installation instructions.

IMPORTANT: NOT SUITABLE AS A FLAMMABLE GAS OR SMOKE DETECTOR

IMPORTANT: Ne convient pas à la détection des gaz inflammables ou de la fumée.

E151570

**MTI INDUSTRIES INC. 1000 BROWN ST. #109
WAUCONDA, IL 60084 109 800-383-0269**

LP Leak Test

In the refrigerator inspection compartment, a LP gauge has been plumbed in the gas line. To check for leaks, turn the appliance off, wait five minutes then close the LP tank valve. The gas pressure should not drop any more than 2 inches of water column pressure in a 30 minute time span. Further information is located in the plumbing section of this manual.

OVERNIGHT STOP

In time you will develop a knack for spotting wonderful little roadside locations by turning off the main highway and exploring. There are many modern recreational vehicle parks, including State, County and Federal parks with good facilities, where you may obtain hookups of electrical, water and sewer connections. Directories are published which describe in detail these parks and tell what is available in the way of services and hookups.

Overnight or Weekend Trips

On overnight or weekend trips, chances are you will not use up the capacity of the sewage holding tank, deplete the water supply, or run down the batteries which supply the living area 12 volt current.

Longer Trip

On a longer trip, when you have stayed where sewer connections and utility hookups were not available, it will be necessary for you to stop from time to time to dispose of the waste in the holding tank and replenish the water supply. Many gas stations (chain and individually owned) have installed sanitary dumping stations for just this purpose. Booklets are available which list these dumping stations.

When you stop for the night, your Airstream motorhome is built to be safely parked in any spot that is relatively level and where the ground is firm. Your facilities are with you. You are self-contained. Try to pick as level a parking spot as possible.

Hydraulic Leveling Jacks

Some models are equipped with hydraulic leveling jacks that can be deployed. Complete instructions are included with the Owners Packet. Be sure to read the directions completely prior to operating the jacks. The jacks will be able to level your unit in most modern campgrounds. However, their capabilities are limited, and in some situations you will have to use planks to level the coach.

All you need to do to enjoy the self-contained luxury is to:

1. Turn on LP gas supply and light appliance pilots if required.
2. Turn on water pump and open faucets until air is expelled from the system.

Before moving on, turn off the LP gas and water pump, check your campsite, both for cleanliness and also to be sure you haven't left anything behind. Make sure everything is properly stowed.

WINTER TRAVELING

Traveling in your motorhome during the cold winter months can be a most exhilarating experience.

There are, of course, certain precautions which must be taken as you would in your home in low temperatures.

WARNING: Always shut off the LP gas when fuel is added to the tank.

Some states do not allow LPG to be turned on while moving. While traveling in these states you must use your common sense. How cold is it? How long will it be before you can turn the heat back on? Is the temperature dropping or rising? Remember, the wind chill factor when driving 50 MPH will cause the interior of the motorhome to cool much faster than when it is parked.

1. You must have a plentiful supply of propane gas.
2. If your stay is longer than overnight, you should endeavor to have 120-volt electricity available. The batteries, fully charged, will not last more than about 15 hours in freezing weather. Of course, you can run your generator to recharge the batteries, or even use the generator continually.
3. Minimize use of electricity if 120 volt power source is not available.
4. Leave cabinet doors, bed doors and wardrobe doors slightly open at night to allow circulation of air in and around all furniture components.

5. Use propylene glycol type antifreeze in waste and drain water tanks to prevent freezing. Quantity of antifreeze needed will vary with ambient temperature and the amount of liquids in tank.
6. For extended stays in cold weather, insulate the water line outside the motorhome. You should remember that low temperatures in combination with high winds cause an equivalent chill temperature much below what your thermometer is reading. For instance, with an outside temperature of zero degrees, and the wind velocity of 10 miles per hour, the equivalent chill temperature is minus 20° F.

Condensation

It is also important to guard against excessive humidity inside your motorhome during winter campouts. When windows and window frames fog up or “sweat,” it means that there is too much moisture in the air. Moisture comes from water vapor and water vapor is the direct result of water evaporating.

Many things such as baths and showers, boiling foods, washing dishes, washing clothes, even breathing, contribute to evaporation. The inside air can only absorb so much of this moisture before it becomes saturated. At this point it can hold no more, and any additional water vapor condenses back to liquid water in the form of droplets on any available cool, solid surface. Temperature has a direct effect on the air's saturation point. Cold air holds less moisture than warm air. For this reason, the air immediately adjacent to cold outside walls and windows cools down and causes water vapor to condense and form moisture droplets, even though warmer inside surfaces are still dry.

The best way to keep condensation under control is to reduce moisture producing activities. It is important to provide adequate ventilation and keep the air circulating as much as possible.

Use your exhaust fans to remove moisture before water vapor mixes with the air. Open windows slightly once in a while, while operating fans, to bring in drier outside air and aid in overall air circulation. In extremely cold weather, when outside ventilation is not practical, it may be necessary to use a small dehumidifier to aid in reducing condensation.

There is no substitute for common sense in cold weather.

Note: The Airstream motorhome is built as a recreational vehicle and is not intended as a permanent dwelling or for more than temporary use in sub-freezing temperatures.

EXTENDED STAY

Making a long trip is not very different from making a weekend excursion. Since everything you need is right at hand, you are at home wherever you go. When packing for an extended trip, take everything you need, but only what you need.

When you plan to stay in the same place for several days, weeks or months, you will want your motorhome to be as level as possible. Check the attitude with a small spirit level set on the inside work counter. If a correction is necessary, then you must first level from side to side. This can be done most easily by driving up a small ramp consisting of 2" x 6" boards tapered at both ends. **WE DO NOT RECOMMEND PLACING TIRES IN A HOLE FOR LEVELING.**

Hook Up to Water by attaching a 1/2" minimum high pressure water hose to the city water service, or the hose from the water reel if so equipped.

Plug the Electrical Cable into the City Power Service. Be sure you have the wire grounded and have the proper polarity. See Electrical Section for technical details.

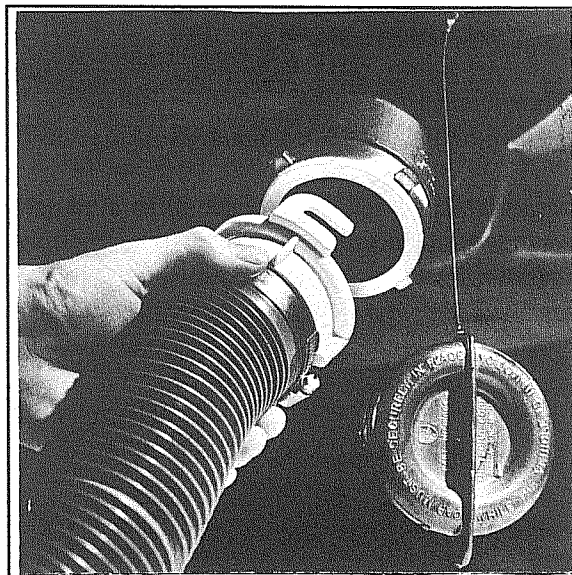
A Cable TV Hookup is located on the roadside rear corner of the motorhome. It is already wired into the existing system, so the exterior connection is all that is required.

To operate the Generator simply start the generator at the control panel. After the generator has run a couple of minutes, an automatic relay will close and current from the generator will be supplied to the 120-volt circuit breakers. This is indicated by the AC power light on the control panel starting to glow. Operating the generator for about one hour each day will normally keep the battery charged.

Hook your Waste Drain Hose into the Sewer Disposal Facility and attach to the drain outlet in your motorhome. For details on this procedure see Drain and Waste System Section.

Turn on the gas supply and light the oven pilot. Lighting a top range burner to bleed any air from the system will make it easier to start other appliances.

When you stay for extended periods where electric or water hookups are not available, you must make regular checks on the condition of your 12 volt battery and the contents of your water tank. Carry drinking water in a clean bucket to refill your tank. When your waste tank nears capacity, move your motorhome to a dumping location.



Sewage Outlet

NOTES

EXTERIOR

The side walls and roof of your Airstream motorhome are laminated fiberglass. There is no magic to caring for your motorhome. As a general rule of thumb, we recommend the motorhome be washed about every four weeks and waxed in the spring and fall. To make sure your new unit is always protected, you should wax it immediately or have your dealer wax it just prior to delivery. In industrial areas cleaning and waxing should be done on a more frequent schedule.

ALWAYS CLEAN YOUR MOTORHOME IN THE SHADE OR ON A CLOUDY DAY WHEN THE SKIN IS COOL. Oil, grease, dust and dirt may be removed by washing with any mild non-abrasive soap or detergent. Cleaning should be followed by a thorough clean water rinse. Spots and streaks may be prevented by drying the unit with a chamois or a soft cloth.

After cleaning and drying, a good grade of non-abrasive automotive paste or liquid wax will increase the life of the finish, especially in coastal areas where the finish is exposed to salt air, or in polluted industrial areas. It will also protect the shell from minor scratches and make subsequent cleaning easier.

It is important to remove sap, gum, resin, asphalt, etc., as soon as possible after they appear by washing and rewaxing. Sunlight and time will bake-harden these materials, making them almost impossible to remove without heavy buffing. If asphalt remains on the motorhome after washing, use a small amount of kerosene on a rag and wipe the spots individually, being careful not to scratch the finish.

It is recommended that the caulking and sealant used in external seams and joints such as window frames, light bezels, beltline and rub-rail molding, etc., be checked regularly. If this material has dried out and becomes cracked or checked, or if a portion has fallen out, it should be replaced with fresh material to prevent possible rain leaks. Caulking and sealing material is available from your dealer.

Roof Ladder and Storage

For traveling, the ladder should be hinged down and snapped securely into the nylon sockets. If the ladder is down and rear engine access is required, the bottom of the ladder is pulled out of the sockets (a good hard tug is needed) then swung up vertically. As it nears vertical, the slot in the hinge will fall into a locked position and hold the ladder up. To lower, raising up on the ladder will release the hinge and allow the ladder to be pivoted down to use position.

CAUTION: Roof storage is limited to 250 pounds evenly distributed.

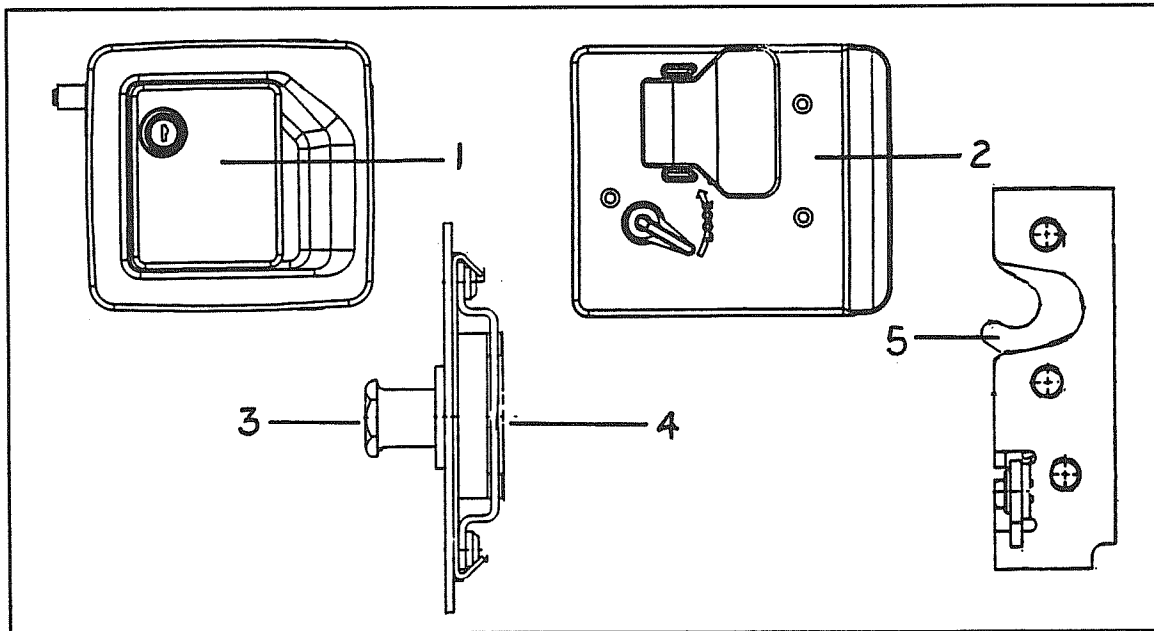
Main Door Lock

The door lock on your motorhome operates in the same manner as the locks used on most automobiles. Locking the latch actually disengages the linkage between the handles and the latch. This prevents forced entry by using large pliers on the lock handle.

We urge you to keep an extra set of keys for both the door lock and the ignition hidden somewhere on the exterior of the coach. We probably receive a dozen calls a year from people who have lost keys or locked them in the coach.

Occasionally you might find the latch catch, shown in the open position below, out of time. This simply means it has been bumped and has flipped to the closed position when the door is still open. To re-time, hold the door handle in the open position, then pull out and down on the latch catch. It should flip to the open position as shown in the illustration.

LOCK ASSEMBLY, MAIN DOOR



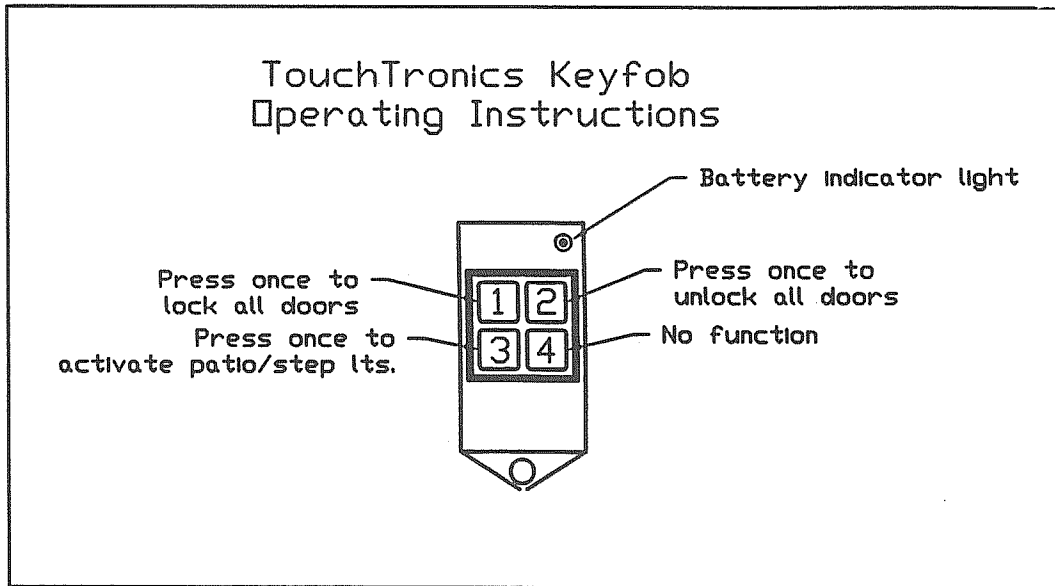
1. Outside housing assembly
2. Inside plate
3. Striker bolt
4. Caged unit
5. Latch catch

KEYLESS DOOR LOCK

Operation

The dead bolt portion of your motorhome may be controlled by radio signals produced by the key fob shown below. One characteristic of this system is the one second delay after a pad has been depressed.

NOTE: When you use the keypad to turn the patio lights ON you must also use the keypad to turn them OFF. The same goes for the switch inside the door. . .if you turn the lights on with this switch, you must use the same switch to turn them off. You cannot turn the lights on with the keypad and off with the switch.



Service

There are four major components operating the door locks; control module/receiver, dash switch, relay, and drive motors. The control module is mounted on the inside wall just behind the main door. The relay operates in conjunction with the dash switch and is located up under the left hand side of the dash. The drive motors, located at each lock, are polarity sensitive. When testing you'll find the wires at the drive motors will switch from positive to negative and vice versus as the key fob or dash switch is being operated. When using the dash switch the relay under the dash performs the polarity switching functions and the control module/receiver serves the same function when the key fob is used.

A detailed wire layout is provided in the electrical section of this manual.

NOTES



INTERIOR

The luxurious interior of your Airstream motorhome has been designed for comfort, convenience, durability and appearance. An understanding of the operational procedures and maintenance techniques of the interior appointments will add to your pleasures, as well as to the long life of your motorhome.

Lounges

To convert the Deluxe Sofa into a bed, it is only necessary to grasp the front edge of the seat, raise and pull it toward the aisle of the motorhome. The back rest will slide down into place automatically.

Dinette

The main dinette table leaf is hinged to the credenza shelf. Grasp the edge of the leaf by the floor and swing up to a horizontal position. The table leg is held in place by gas struts and can be swung down to support the leaf.

To install the extension leaf the main leaf is slid out further in the aisle. It must first be released from the credenza by pivoting the sash lock handles located under the leaf next to the credenza.

Cocktail Chairs

The cocktail chairs have two adjustments. As you sit in the chair, one lever will protrude on the left side. Releasing this lever allows the chair to rotate.

On the right side is another lever. Releasing this lever will allow the chair to slide forward and backward.

CAUTION: Rotating the chair when it's slid back against the wall can damage the upholstery. Position the chair so it isn't chafing when in transit.

Fabric Cleaning

All material should be professionally dry cleaned to remove any overall soiled condition. These materials may be spot cleaned, however, using the cleanability code instructions as listed. Sample swatches are furnished to our dealers. The dealer will be able to give you the cleaning code and part number for the fabrics used in your particular motorhome.

The following are the cleanability code instructions for the various fabrics used in the Airstream motorhomes:

Cleanability Codes

CODE W-S

Fabric care. Spot clean this fabric either with a mild solvent or a water-based cleaning agent. When using a solvent or dry cleaning product, follow instructions carefully and clean only in a well-ventilated room. Avoid any product which contains highly toxic carbon tetrachloride. You may also use an upholstery shampoo product or the foam from a mild detergent. With either method, pretest a small area before proceeding. Use a professional furniture cleaner when an overall soiled condition is reached.

CODE S

Fabric care. Spot clean, using a mild, water-free solvent or dry-cleaning product. Carefully follow instructions on such product. Clean only in a well-ventilated room. Avoid any product containing carbon tetrachloride, which is highly toxic. Pretest small area before proceeding. Use a professional furniture cleaner when an overall soiled condition is reached.

CODE W

Fabric care. Spot clean, using the foam only from a water-based cleaning agent, such as mild detergent or non-solvent upholstery shampoo product. Apply foam with a soft brush in a circular motion. Vacuum when dry. Pretest small area before proceeding. Use a professional furniture cleaner when an overall soiled condition is reached. The above code was designed by the manufacturer of the fabric.

CAUTION:

Never remove cushion cover for separate cleaning or washing. Any tumble cleaning method can destroy the backing, shrink or otherwise damage upholstery.

SMOKING WARNING

Keep your furniture and family safe from fires caused by careless smoking. Do not smoke when drowsy. Remove immediately any flowing ash or a lighted cigarette which falls on furniture. Smoldering smoking material can cause upholstered furniture fires.

Drapes

Use the following procedures to remove drapery panels for cleaning:

Front Wrap Around Drapes

1. Remove screws securing rear end of drapery track bracket to wall, both roadside and curbside.
2. Slide draperies to the rear until they are clear of track.
3. After reinstalling drapes, replace screws in bracket.

CAUTION: All drapery materials and mattress covers must be professionally dry cleaned.

To prevent excessive wear to drapery linings, blinds must be secured at the bottom and slats turned vertically when driving long distances.

Shades

The day/night shades are opened and closed by grasping both knobs and sliding the shade straight up and down. Your choice of blind density is instantly available by using the appropriate set of knobs.

Carpet

The carpet can be cleaned with any good commercial carpet cleaner, or with a detergent and water. **HOWEVER, BE CAREFUL NOT TO SOAK THE CARPET WITH WATER.**

Hardwood Flooring

Two different hardwood floors are available - - planked or parquet. Care is the same for both. Daily care is by vacuuming. Occasionally waxing with a non-water base wax will help extend the life of the floor.

WARNING: Warn occupants of the vehicle when fresh wax has been applied, just like a home, the floor will be slippery.

Counter areas

The counter areas around the sink are of a high-pressure laminate and can be cleaned with soap and water, or you can use a common solvent on tough spots. Be sure no abrasive cleaner is used, as there is the possibility it could scratch the surface. A protective pad should always be placed under hot utensils.

Walls/cabinets

The vinyl walls of the motorhome can be wiped with any mild household cleaner. The wood grain panel also has a vinyl covering for easy care. The cabinet doors and framework are hardwood, so any good furniture polish can be used.

Drawers

Drawers with metal runners on each side are removed by extending completely then lifting up on the front of the drawer and pulling it out of the track.

NOTE: The drawers under the rear double beds will contact the wall before coming free from the metal runners - hold drawer out against the wall and slide the metal runners under the bed until the drawer is free.

CAUTION: Do not use any abrasive material on the vinyl covered walls.

Bathroom

CAUTION: The lavatory bowl and countertop in your bathroom are made of a special cultured marble. When cleaning, use soap or detergent only. **NEVER USE SCOURING POWDER.**

Shower Stall

To clean your ULTRA/GLAS shower stall unit, use warm water and one of the stronger liquid detergents. Do not use abrasive cleaners; they may scratch and dull the surface of your ULTRA/GLAS unit. Stubborn stains can be removed with solvents such as turpentine, paint thinner or acetone. Restore dulled areas by rubbing with an automotive-type liquid cleaner, then put the soft glow back into your ULTRA/GLAS unit with a light application of liquid wax.

WARNING: Do not wax the floor of the stall without using a bath mat afterward to prevent a dangerous slippery floor condition.

PLUMBING

LPG SYSTEM

Your motorhome is equipped with a permanently mounted tank for LPG (Liquid Petroleum Gas). LPG burns with a clean blue flame. There are two basic types of LPG in common usage: Butane and Propane. Butane is widely used where temperatures are normally above freezing the year round, and Propane is used where subfreezing temperatures are common, since Butane freezes at 32°F as compared to -40°F for Propane. **ALL OF THE ORIFICES IN THE LPG APPLIANCES ARE OF THE UNIVERSAL TYPE WHICH WILL BURN EITHER FUEL.** How long a full tank of gas will last is dependent on usage. In cold weather, when you are using the furnace, large amounts of hot water, and cooking extensively, you will naturally use more than you will in warm weather, when you may do limited cooking. On the average, with normal cooking and other appliance use, you can probably count on one month of usage from the tank.

If you have allowed the tank to run out, air may have gotten into the lines. In this event the air must be forced out through the lines by gas pressure before you can light the pilots. Hold a match to the pilot of the appliance closest to the tanks until it lights and stays lit. Then move to the next closest, etc.

WARNING:

All pilot lights and appliances must be turned off during refueling of motorhome fuel tank and permanently mounted LPG tank. Gas lines should be checked periodically for leaks with ammonia free soapy water. Do not use open flame.

CAUTION:

Moisture in the LPG tank will cause a malfunction of the regulator in controlling proper pressure. This may result in the flame lifting off the burner, or the flame may go out frequently. Many refueling stations will add approximately 1/4 to 1/2 gallon of alcohol to lower the moisture temperature. Moisture will then pass through the regulator without the formation of ice crystals.

WARNING:

If gas can be smelled, appliance pilots fail to stay on, or any other abnormal situation occurs, shut off tank valve immediately and call on a qualified LPG service center or Airstream Service Center.

LPG Regulator

The LPG regulators used on Airstream motorhomes are designed for low pressure service, with a normal outlet pressure setting of 11.5 water column. Only personnel trained in the proper procedures, codes, standards, etc., should service regulators.

Have the regulator inspected each time the tank is refilled. Make sure the regulator vent opening on both first and second stage regulators does not become plugged by mud, insects, snow, ice, paint, etc. Vents must remain open.

Replace any regulator that has had water in the spring case, or shows evidence of external corrosion, or corrosion inside the spring case. Closely examine regulators directly connected to the container valve by means of a solid POL adapter (horizontal mounting) for signs of corrosion. (An Airstream Service Center is recommended for this service.)

BASIC RULES FOR SAFETY

WARNING: DO NOT store LP containers within vehicle. LP containers are equipped with safety devices that vent gas should the pressure become excessive.

WARNING: DO NOT use cooking appliances for comfort heating. Cooking appliances need fresh air for safe operation. Before operation open overhead vent or turn on exhaust fan and open window.

A warning label has been located in the cooking area to remind you to provide an adequate supply of fresh air for combustion. Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle, and proper ventilation when using the cooking appliances will avoid 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: 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 or asphyxiation.

WARNING: A Warning Label has been located near the LP gas container. This label reads: DO NOT FILL CONTAINER(S) TO MORE THAN 80% PERCENT OF CAPACITY. Overfilling the LP gas container can result in uncontrolled gas flow which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume as liquid LP gas.

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

WARNING:

If you smell gas:

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

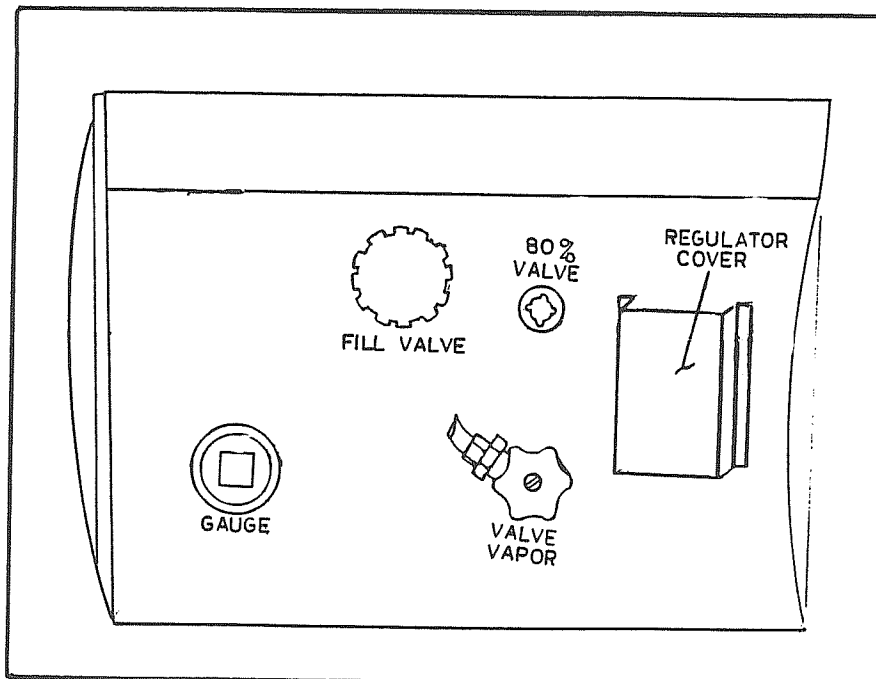
WARNING: LP gas regulators must always be installed with the diaphragm vent facing downward. Regulators that are not in compartments have been equipped with a protective cover. Make sure that regulator vent faces downward and that cover is kept in place to minimize vent blockage which could result in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

LP TANK INSTALLATION

The regulator at the L.P. tank is under a black plastic cover. The protective cover certainly helps to keep the vent on the regulator from getting clogged by wasps or ice, but should still be checked regularly to make sure the vent remains clear.

WARNING: Do not attempt to seal regulator cover.

WARNING: Check vent each time tank is filled to make sure it's clear of obstructions.



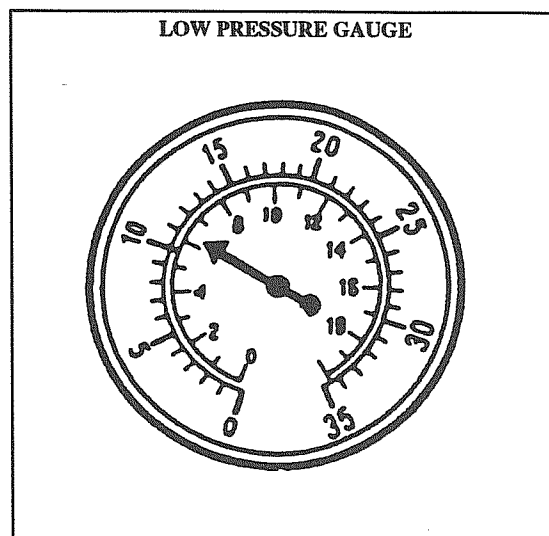
LPG System Pressure Check

Use a pressure gauge. (See Illustration)

This gauge is calibrated to read in "inches of water column pressure" or kilopascals. Our reference figures will always use the American inches of water column.

It can be viewed by opening the exterior refrigerator access compartment. Since it's permanently plumbed into the system, it constantly monitors the pressure.

The optimum pressure is 11.5 inches of water column. The pressure should never be less than 11.0, nor higher than 12.0 inches with all appliances operating or off.



WATER SYSTEM - SELF CONTAINED

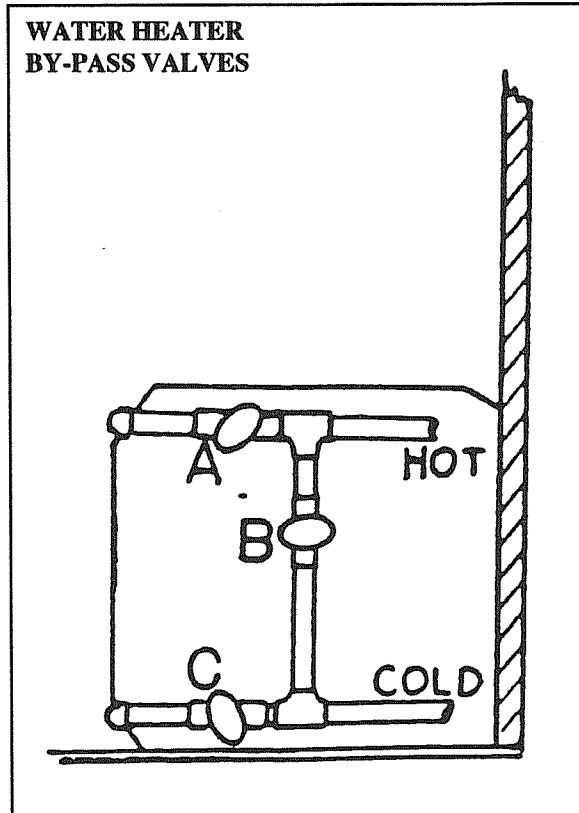
Fill the water tank by opening the exterior door marked water fill and remove screw cap. A garden hose can now be inserted. It's a good idea to let the water run through the hose for a short time to flush it out. Experienced Rvers usually fill their tanks with "home" water to avoid strange water that may be distasteful to them.

The amount of water in the tank may be checked on the Monitor Panel, or you may fill the tank until water overflows out of the fill.

Turn water heater by-pass valves to normal flow, open valves A and C. Close valve B. For winterizing B would be opened while A and C are closed. Access to the valves is by lifting the forward section of the bottom shelf in the triple wardrobe.

Open the hot side of the galley or lavatory faucet and turn on the water pump switch located on the monitor panel. For some time the open faucet will only sputter. This is because the water heater is being filled and air is being pushed out through the lines. Once the water heater is full a steady stream of water will come from the faucet. Now open a cold faucet. It will sputter for a short time, but will soon expel a steady stream. All other faucets can now be opened until all air is expelled.

Once the system is filled with water and the faucets closed, the water pump will shut off. When a faucet is opened the pump will come back on automatically. If the faucet is just barely open it is normal for the pump to cycle on and off rapidly.



CAUTION: The water pump must be turned off when hooked up to city water supply and when you leave your Airstream unattended.

WATER PUMP AND FILTER

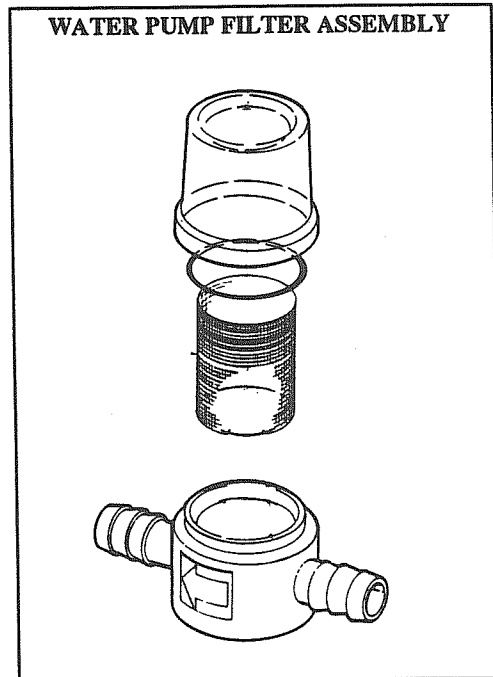
The water pump and filter are located in the utility compartment on the roadside forward of the rear wheels. They won't be readily apparent when you open the compartment door, you'll have to bend down and look up. The filter screen should be cleaned periodically to prevent accumulation of dirt and sand. To remove the screen, disconnect the rubber hoses from both ends, separate the screen housing, remove the screen, clean and replace.

To Disassemble Pump Filter

1. Unscrew top from base.
2. Pull top from base. Do not damage "O" ring seal.
3. Remove screen to clean or replace.
4. Lift "O" ring from its cavity. Lubricate with silicone grease.
5. Assemble by reversing above procedure.

Cleaning Water Storage Tank

1. Prepare a sodium hypochlorite solution using potable water and household bleach (5 1/4 to 6%) in the ratio of 1/4 cup bleach to 1 gallon of water. (Common household bleaches are Purex and Chlorox.)
2. Pour 1 gallon of hypochlorite solution for each 15 gallons of capacity into the empty water tank.
3. Add enough potable water to completely fill the water system.
4. Allow closed system to stand for three hours.
5. Drain the hypochlorite solution from the system and refill with potable water.
6. Excessive hypochlorite taste or odor remaining in the water system is removed by rinsing the system with a vinegar solution mixed in the ratio of 1 quart of vinegar to 5 gallons of water.
7. Drain the system and flush with potable water.



CITY WATER HOOKUP

Your city connection is on a reel in the utility compartment on the roadside just behind the rear wheels. The hose reel operates much like the roller window shades. Pull the hose out then let it retract slowly and it will "catch" and hold in that position.

If you happen to pull the hose out to the very end and pull it out and further to release the catch, just grasp the reel and turn it in the unreel direction until the catch releases.

Use a high pressure hose of at least 1/2" diameter. It should be one that is tasteless, odorless and non-toxic designed for RV use. The city water inlet is a standard garden hose thread. We suggest you carry two lengths of hose. This way you have the ability to reach hookups further away than normal, plus you have a spare hose should one fail or become damaged unexpectedly. Turn the water heater bypass to the normal flow position as described under self contained.

After hooking up the hose and turning on the city water valve provided in the park, slowly open a faucet. There will be a lot of spurts and sputtering until all the air is expelled from the motorhome system. If the water heater is empty it will take some time before all the air is expelled and you get a steady flow of water at the faucet. Once a steady flow is achieved at one faucet the others should be opened long enough to expel the air in the lines going to them.

During city water operation the water pump switch should be in the off position. A check valve built into the pump protects it from city water pressure.

Your plumbing system has a built in pressure regulator to protect your lines and faucets from extremely high pressures on some city water systems.

EVERPURE WATER FILTER

The filter is located under the galley sink. It will remove even very fine dirt and colloidal matter, and eliminates most chlorine, phenol and similar distasteful odors and tastes, while delivering sparkling taste-free water for drinking and cooking. The filter is connected to the cold water galley drinking faucet only. The filter will also remove iron and sulphur provided the water supply is chlorinated. super-chlorination will precipitate the iron and sulphur which will then be removed by the QC-2 Filter. To purify any questionable water fill the Everpure Chlorine Disinfectant Dispenser with liquid bleach and add 1/6 ounce (one teaspoonful) per 10 gallons of water in the water tank. The water will remain sparkling clear even to the end of the filter pack life, however, as the minute pores slowly fill up with impurities the flow rate will be gradually reduced. When it becomes too slow for convenience the cartridge can be very simply changed. Follow the instructions on the cartridge. We advise keeping a spare cartridge at all times.

To Remove Used Cartridge:

1. Shut off water by lifting valve handle counterclockwise as far as possible.
2. Turn colored ring all the way to the left. Ring will drop about 5/8".
3. Lift cartridge slightly and turn it further to the left until it can be disengaged.
4. Lower cartridge to disengage it from ring. Discard used cartridge.

To Install New Cartridge:

1. With colored ring in lowered position (turned all the way to the left), orient lug on cartridge with cutout under label on ring.
2. Insert cartridge straight up into ring as far as it will go. Holding colored ring steady, turn cartridge as far to the right as possible, without forcing.
3. The turn colored ring far to right to drive cartridge up into head.
4. To lock ring in place and turn water on, move valve handle down. Be sure handle leg engages ring locking-lug.

DRAIN VALVES

There are five drain valves used for winterizing in your Clipper.

Three are located in the utility compartment with the dump valves.

One drains the fresh water tank and the other two drain the hot and cold lines.

- One drain valve is in the utility compartment with the hose reel and drains the plumbing in that area.
- The fifth drain valve is under the bottom shelf of the curbside wardrobe and is found by the *water heater.

*Four other valves are located in this area - three make up the water heater by-pass and the fourth shuts off water to the ice maker.

STORAGE AND WINTERIZING

When storing your motorhome for a short or long period, use the same precautions as you would in your own home in regard to perishables, ventilation and rain protection. In addition, for prolonged storage periods, flush out all the drain lines and the holding tanks. Also, drain the entire water system, including the water heater and the water storage tank. Instructions for draining the water system are explained in the following paragraphs on winterizing.

Twice a year, or after a long storage period, we suggest you take your unit into your Airstream dealer for a check-up and cleaning of the gas operated appliances

Living Area

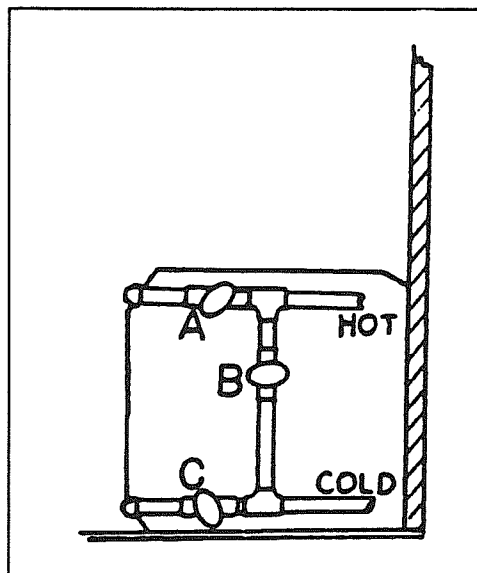
The main consideration in winterizing is to guard against freezing damage to the hot and cold water systems, the waste drain system (including the traps), the waste holding tanks, the water heater and the batteries. To completely winterize your motorhome follow this procedure:

1. Level the motorhome from side to side and front to rear. Open all faucets.
2. Turn the water pump switch to the OFF position.
3. Open all drain valves. (See previous page for location)
4. Remove drain plug from exterior of water heater.
5. The toilet water valve and ice maker valve should be left in open position while draining water.
6. While the water is draining from the system, depress the button on hand spray heads and drain all the water. Unscrew the heads on spray units and store.
7. After the water has stopped running from the drain lines, apply at least 60 lbs. of air pressure at the city water inlet. Be sure the toilet valve and all drain valves and faucets are open and pump outlet hose is disconnected. This can be accomplished at a service station and will force any remaining water from the water heater and remove any water which may be trapped in low areas.
8. Pour a cup of non-toxic antifreeze into the lavatory, sink, and tub drains to prevent freezing water in traps.
9. Be sure to open the waste holding tank drain valves, and drain and flush the tanks thoroughly. (This is very important, as the sewage in the tank, if frozen, could seriously damage the tank.)

10. Remove water filter canister and dump.
11. Remove the batteries from your motorhome and store in a cool dry place where there is no danger of freezing. It is very important for optimum life of your battery to check it periodically and to keep it fully charged. This is especially true in winter months, when the temperature may drop below freezing. If the period of storage is for 30 days or less, you may open the knife switch rather than remove the batteries.
12. Remove any items (food, cosmetics, etc.) from the interior that might be damaged by freezing, or might damage the motorhome if containers break.

For additional winterizing protection, add non-toxic antifreeze (approved for drinking water systems) to your water lines using the following procedure:

1. Reconnect all lines except the hose to the pump inlet port. Close all drain valves (See Step 3).
2. Turn bypass valves to bypass position. Valves are located under lower shelf of triple wardrobe.
3. Attach a length of hose to the pump inlet port. This piece of hose should be long enough for the free end to be inserted into and reach the bottom of the antifreeze container.
4. Dilute the antifreeze solution in accordance with the manufacturer's instructions.
5. Open all water faucets.
6. Insert hose length into the antifreeze container, turn the pump switch on, and run the water pump until the antifreeze solution fills all water lines. Flush toilet. Work shower hand spray while holding down in tub.
7. Shut off the pump and close all faucets.
8. Disconnect the hose length from pump inlet fitting and reconnect water system inlet line.



*To by-pass the water heater for winterizing, close valves A and C and open valve B (See illustration).

DRAIN AND WASTE SYSTEM

The drain and waste system of your motorhome includes waste holding tanks made from molded plastic. The MAIN HOLDING TANK enables you to use the toilet for several days away from disposal facilities. The waste water from the sink, shower, and bath and lavatory drain into the AUXILIARY HOLDING TANK. Each tank has its own dump valve; however, both tanks drain through a common outlet. Therefore, you need to make only one connection when hooking up in a trailer park with sewer facilities.

Monitor Panel

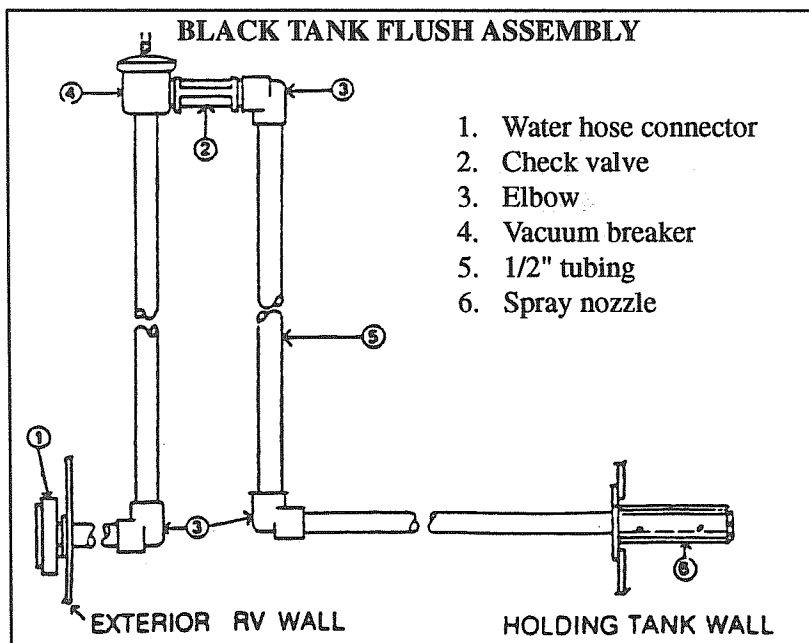
Check your monitor panel frequently. When the MAIN HOLDING TANK is completely full, sewage cannot be emptied from the toilet bowl. If the AUXILIARY HOLDING TANK is overfilled, drain water will "backup" into the tub and cause an unpleasant cleaning job. Never drain the tanks at any place other than an approved dumping station.

To empty both tanks, attach the sewer hose by pressing the bayonet fitting onto the outlet adapter and rotate clockwise until it feels solid and secure. Attach the outlet end of the hose to the sewage outlet, making sure that the hose is placed so that it will drain completely. The dump valves are located on the lower rear roadside corner of the motorhome. Pull the dump valve handle out as far as it will go and wait until the tank is drained. If the auxiliary tank is drained after the waste tank, the soapy water will help keep the sewer hose and outlet clean.

BLACK TANK FLUSH

The main holding tank must be flushed out until all paper and waste material is removed. Close the dump valve and refill the tank with 5 to 10 gallons of clean water and repeat until clean.

In the utility compartment on the left rear forward of the wheels is a water hose connector marked "black tank flush." To use, hook-up hose and turn on full force. Within the tank a spray head with a multiple-holed head will spray the interior surface of the tank.



The gate valve should be closed for the first couple of minutes, then opened to let the water out in a rush. Repeat as needed.

When Parked and Connected to Sewer Outlet

When you are in a park and connected to a sewer outlet, keep the main holding tank dump valve closed, and empty the tank every few days or whenever it becomes almost full. **ONLY BY SENDING A LARGE VOLUME OF LIQUID THROUGH THE MAIN HOLDING TANK AT A TIME WILL TOILET PAPER AND OTHER SOLIDS COMPLETELY WASH AWAY.**

This practice will avoid the accumulation of solids in the main holding tank, which could lead to an unpleasant cleaning job. Should solids accumulate, close the dump valve, fill the tank about half full with water, then drive the motorhome for a few miles. The turbulence and surging of the water will usually dissolve the solids into suspension so the tank can be drained. Keep the auxiliary tank valve open when connected to a sewer outlet.

Draining the tanks as described will protect them from freezing during storage. When traveling in sub-freezing temperatures, use a winterizing solution designed for RV use. Follow the directions on the container.

CAUTION: Never put wet strength paper towels or tissues in your holding tank, since they won't dissolve and can "catch" in the mechanism of the dump valve. Colored toilet tissue is slower to dissolve than white. Most RV accessory stores offer tissue, designed for RVs, that will completely dissolve.

Drain Systems Cleaning

There are many deodorizers on the market in tablet, liquid, and powder form. These not only combat odor, but stimulate the bacteria that works to dissolve the solids in your tank. Picking a deodorizer with lubricating qualities will ease slide valve operation.

The only cleaning agents that can be used without causing harm to the system are household ammonia and trisodium phosphate in small quantities. Do not use any product that contains any portion of petroleum distillates. This attacks the rubber seals of your toilet and dump valve. Also, do not use any dish detergent or abrasive cleaners. All products should be marked approved for ABS drainage systems.

When winterizing drains use only recreational vehicle plumbing type antifreeze. These are sold through your dealer.

TOILET

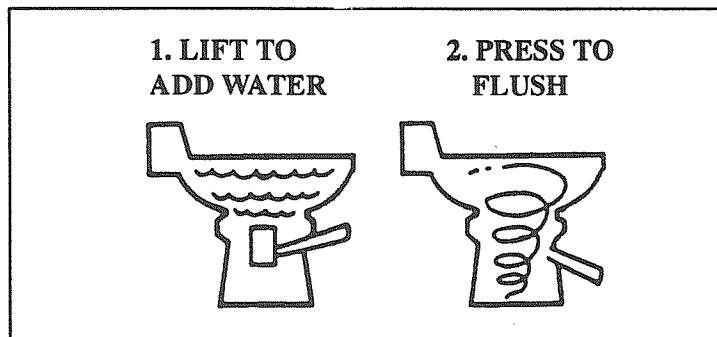
Manufacturer: Sealand Technology, Inc:
P.O. Box 38
Fourth Street
Big Prairie, Ohio 44611
Phone: 1-800-321-9886
In Ohio 216-496-3211

Traveler Model 510/511

How to Use

1. To add water to the toilet before using, lift or raise the flush lever until desired water level is reached. Generally more water is required only when flushing solids.
2. To flush toilet, push lever all the way down until sewage leaves toilet.
3. Release flush lever.
4. A small amount of water should remain in bowl.

Note: Holding flush lever down longer than necessary results in excessive water usage. A good biodegradable tissue, available through RV dealers, is recommended.



Cleaning

The toilet should be cleaned regularly for maximum sanitation and operational efficiency.

Clean the toilet bowl with a mild bathroom cleaner. Do not allow caustic cleaners to set in the bowl for long period of time to avoid damaging seals.

If an odor is apparent from the toilet:

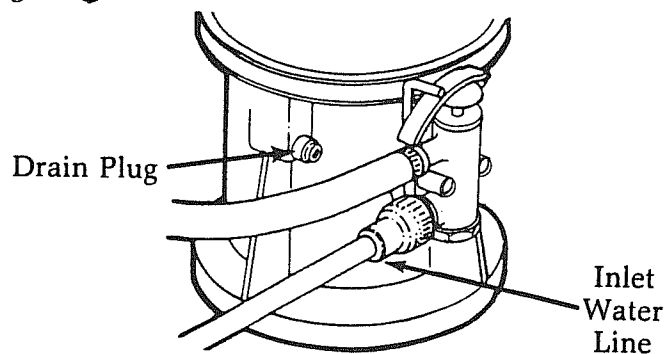
1. Clean out system.
2. Add odor control deodorant in amount specified for your holding tank capacity after cleaning and every few days during use.

Winterizing

At the end of each season the toilet should be winterized for storage. The following procedure should be used:

1. Clean and flush toilet.
2. Shut off water supply, then remove inlet water line.
3. Remove drain plug. (See Fig. 5)
4. Remove water line and clean screen. (Refer to Fig. 6 in Troubleshooting Section.)
5. Depress flush lever until all water drains from the system.

Figure 5



Preparing for Summer Use

To prepare the toilet for summer use, check to be sure drain plug is installed in side of toilet base. Turn on water supply and check system for leaks. Flush toilet and check for leaks. Repair any leaks as necessary. Toilet is now ready for use.

ELECTRICAL SYSTEM

12 VOLT SYSTEM

BATTERIES

Your motorhome is equipped with four batteries. Two batteries will be for the engine and the other two batteries for the interior 12 volt circuits.

Engine Battery

The engine batteries are used for starting the engine and operating the headlights, tail-lights, running lights, instrument panel lighting, automotive air conditioning and other accessories. The engine batteries are charged by the alternator while driving and are located in the left rear of the coach. They are part of the Oshkosh Chassis.

Coach Batteries

The coach batteries are used for interior lighting, exhaust fans, generator, water pump, central control panel, entertainment center, optional 12-volt convenience outlets, and the refrigerator when it is switched to 12-volt power. These batteries are charged by the engine's alternator when driving, or by the converter when plugged into 120 volt city power. They are also charged by the generator, when it is running, through the 120 volt city power system.

Auxiliary Battery Switch

The switch marked aux. batt. on the galley end panel just inside the main door acts as a master switch. When turned off it opens the circuit between the coach batteries and the twelve volt distribution panel. The component that actually makes and breaks the circuit is a large continuous duty rated solenoid located in the rear compartment next to the batteries.

The switch is not intended for everyday use. But if you're going to be away from your coach for more than 3 or 4 days and it's not plugged into 110 volt current just flip the switch off on the way out and your assured of fresh batteries when you return.

Inverter (optional)

If the coach is ordered with the optional inverter it will be located in the roadside lower compartment just forward of the batteries. A separate monitor panel just for the inverter is mounted above the range. An inverter uses 12 volt battery power and changes it to 120 volt AC current. More information on the operation is in the Heart Interface manual supplied with each unit.

What is important on the 12 volt side is the amount of power required from the batteries for the inverter. This is probably best shown by a little ninth grade science.

120 Volt (Plugged in)	12 Volt (Battery power)
$\frac{1500 \text{ Watt}}{120 \text{ volt}} = 12.5 \text{ amp}$	$\frac{1500 \text{ Watt}}{12 \text{ volt}} = 125 \text{ amp}$

Pulling 125 amps from your batteries is a tremendous load. Luckily there would probably be few times where you need this kind of power. If you do need 1500 watts for an extended period of time start your generator - - 1500 watts would be a light load for it.

A little common sense will make the inverter system useful. But, if you try to overdo it you'll have dead batteries.

12 Volt Operation

The coach batteries are located in the roadside rear lower compartment. They are the larger of the two pairs and are designated as 8-D. The smaller pair, supplied with the automotive chassis, are 4-D. To use the coach batteries the aux. batt. switch on the end panel just inside the main door must be on. The intent of the switch is to allow you to isolate the batteries from parasitic amperage draws during periods of storage. When using your coach, turn the switch "on" and forget it. The switch engages a continuous duty rated solenoid, located under the rear bed, which provides a path of current from the batteries to the 12 volt distribution panel.

The only thing you have to do is make sure the coach batteries don't run down. In normal usage there isn't any problem, since you would normally drive part of the day and be plugged into a camp ground at night. The alternator charges the batteries when you drive and when you're plugged into city power the convertor charges the batteries and carries much of the load. If you have the optional inverter it also acts as a convertor when plugged into 110 volt power and charges the battery.

Some nights you may not find a place to plug into city power. No problem; the standard two battery system gives you about 300 amp-hours so you can comfortably run your lights and vents in a normal fashion without depleting the batteries.

If you are not plugged into city power and you're not driving, you'll want to conserve your batteries by using as few lights and appliances as possible. If you notice the lights becoming dim, it's much easier on the batteries if you go ahead and start the engine or generator before the batteries run down.

Optional solar panels that work to keep the batteries charge range anywhere from a battery maintaining system (10 watt) to a series of 53 watt panels that produce serious power. More information is provided further back in this 12 volt section and a separate pamphlet is loose in the silver key notebook.

There are two sets of 12 volt fuses and breakers in your motorhome. The main interior circuits are in the 12-volt distribution panel in the foot of the rear bed. The brightly colored fuses pull straight out from the face of the panel. Replacement fuses are available at automotive stores and most service stations. On the panel covering the fuses is a diagram showing the function of each fuse or circuit breaker.

The second set of Oshkosh fuses are located in the center console between the driver and passenger. The function of most of the breakers is marked directly on the face of the fuse block. See your Oshkosh Drivers Manual for further information. An illustration in the following diagram section of this book shows the placement and function of wires added by Airstream.

Basic 12V Wiring

On the following fold out sheet is a drawing of the 12-V wiring used in the Land Yacht motorhome.

The auxiliary battery switch at the main door is intended to be used for long term storage. If you're not going to use your motorhome for a week or two, just leave the switch closed. If it's going to be more than a couple of weeks before using your coach, open the switch. This will assure your batteries will remain in the best condition possible.

On the following pages are 12-volt wiring diagrams. The first drawing simply labeled "12V Wiring" will probably be the most useful. It shows how the power from the batteries reaches the main components. The auxiliary battery disconnect solenoid, auxiliary start solenoid, isolator, 30 amp and 50 amp breakers shown in the first diagram are all located under the rear bed,

*In years past, most 12-volt circuit breakers were automatic - if they kicked out after a brief period of time they would reset themselves. Recently the automatic breakers have all been replaced with the type that must be manually reset. The reset button is in the end of the breaker and is depressed to reset. The button is small and in many cases directly under a wire so they can be difficult to see.

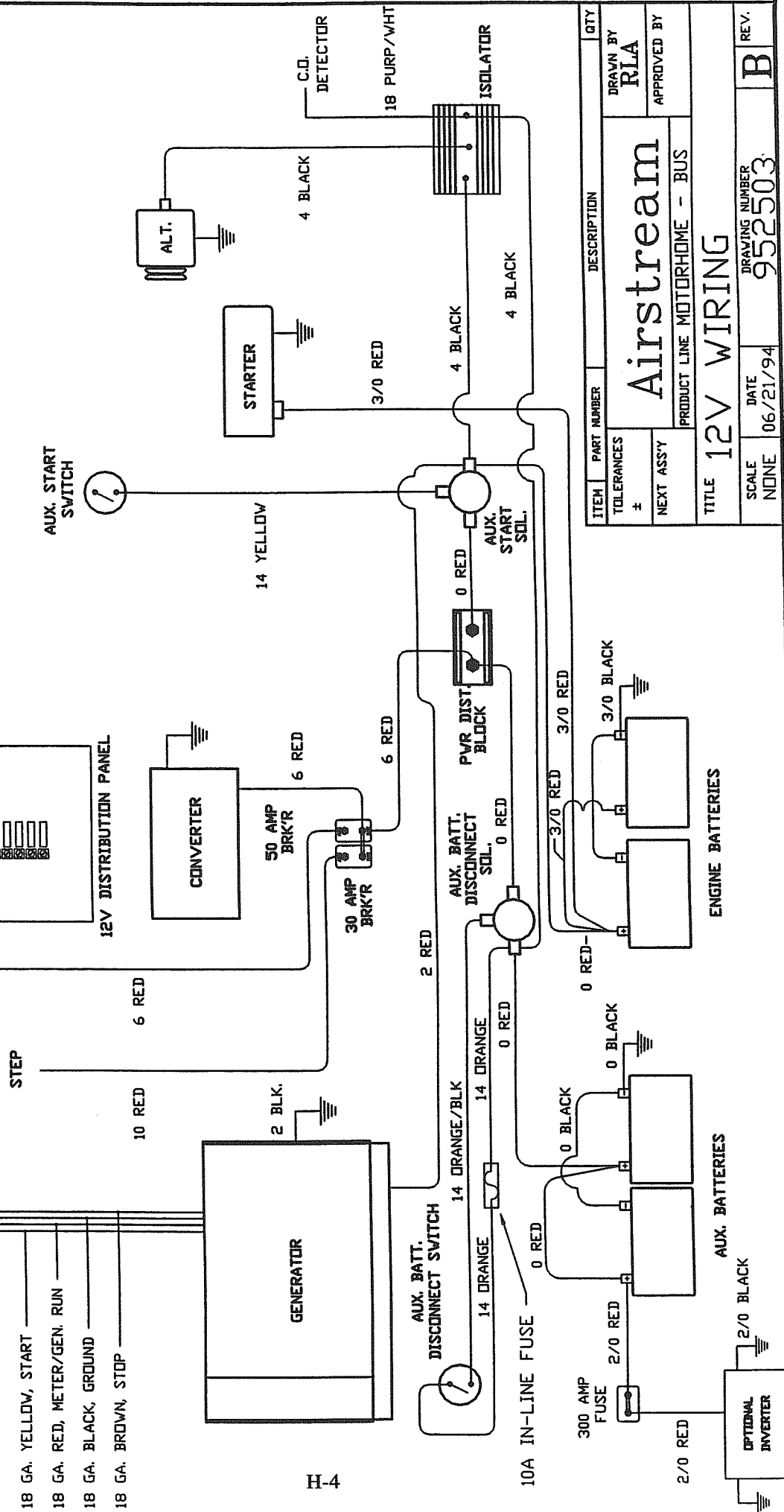
12V WIRING DIAGRAMS

- 12 volt wiring main
- 12 volt fuse panel, Oshkosh
- 12 volt fuse panel, Airstream
- 12 volt calculations
- 12 volt layout - firewall - 1
- 12 volt layout - firewall - 2
- 12 volt layout - firewall - 3
- 12 volt layout - firewall - 4
- 12 volt layout - chassis - 1
- 12 volt layout - chassis - 2
- 12 volt layout - chassis - 3
- 12 volt layout - body interior
- 12 volt layout - ceiling
- 12 volt schematic - "A" Post
- 12 volt switch wiring - dash
- 12 volt switch wiring - armrest
- 12 volt mirrors - exterior
- coaxial cable
- keyless entry

CONTROL PANEL GEN. START SWITCH



- 18 GA. YELLOW, START
18 GA. RED, METER/GEN
18 GA. BLACK, GROUND
18 GA. BROWN, STOP —

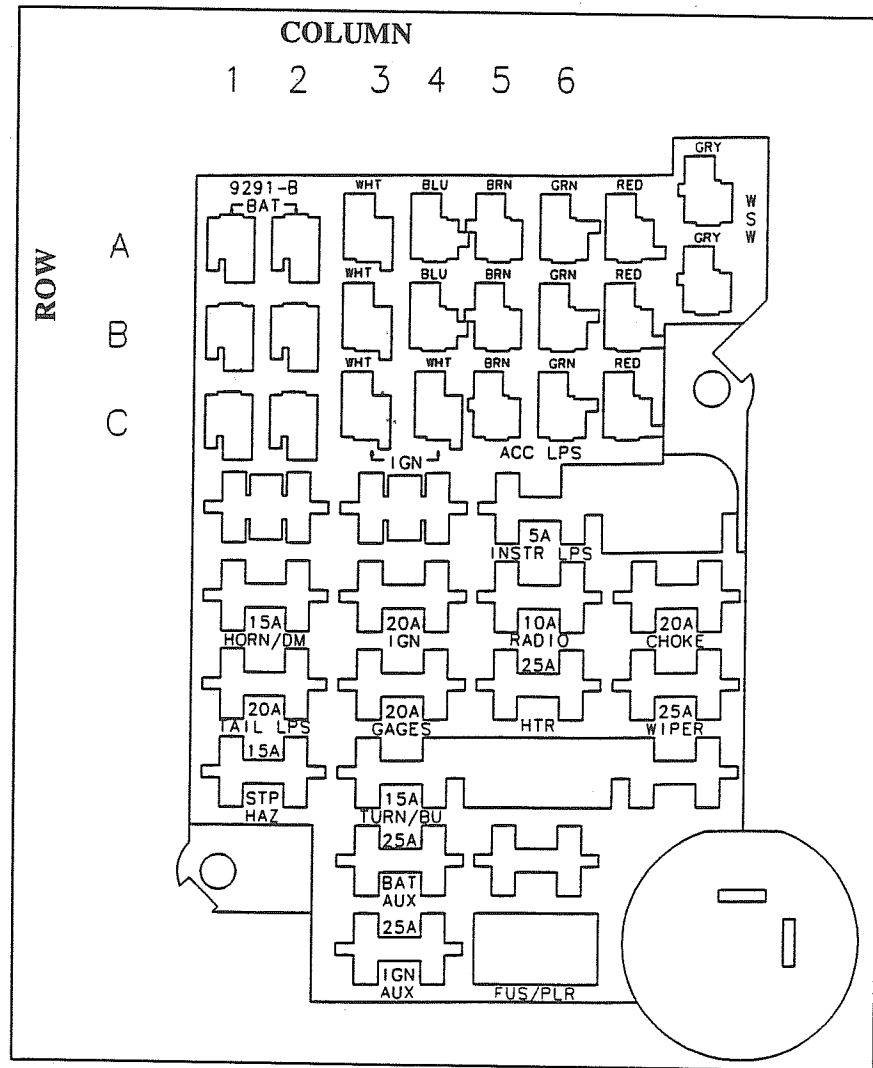


ITEM	PART NUMBER	DESCRIPTION		QTY
TOLERANCES ±		Airstream		DRAWN BY RLA
NEXT ASS'Y				
		PRODUCT LINE MOTORHOME - BUS		
TITLE 12V WIRING				
SCALE NONE	DATE 06/21/94	DRAWING NUMBER 952503		REV. B

AIRSTREAM AUTOMOTIVE FUSES

12 VOLT FUSE PANEL OSHKOSH

Some of the accessories installed by Airstream are automotive in nature and are fused at the Oshkosh fuse panel located under the front hood. The following chart shows the wires added by Airstream, the fuse protecting the circuit and the function of the circuit.



Conn. Color	Location Row Column		Fuse Name	Fuse Size	Protected Function	Wire Color
Black	A	1	Horn/DM	15	Battery level engine	Orange
Black	B	1	Horn/DM	15	Door lock	Blk/Wht
Black	A	2	Horn/DM	15	Lighters & spot light	Orange
White	A	3	Ign. Aux.	25	Monitor	Yellow
White	B	3	Ign. Aux.	25	Ignition	Red
White	C	3	Ign. Aux.	25	Step	Red
Blue	A	4	Heater	25	Dash heater	Black
Blue	B	4	Heater	25	Aux. heater	Blue
White	C	4	Ign. Aux.	25	Vacuum pump	Pink
Brown	A	5	Radio	10	Driving lights	Blue
Brown	B	5	Radio	10	Mirrors	Or/Blk
Brown	C	5	Radio	10	Monitor Camera, tilt	Yellow
Green	A	6	Instr. LPS	5	Gauge lights	Gray
Grey	A	8	WSW	25	Wipers	Yellow

952456

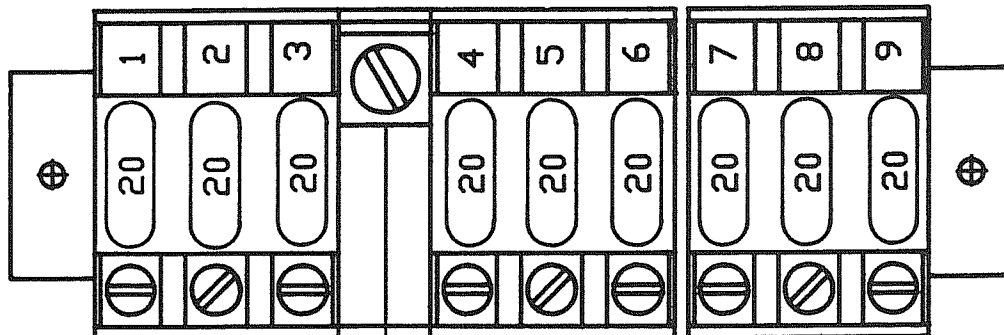
LET	DATE	ECN	REVISION R	BY
	10/93	#	PRODUCTION RELEA	K-1

FUSE POSTION:

- #1 CIR. 7, 12 GA. ORANGE
- #2 CIR. 7, 12 GA. ORANGE
- #3 CIR. 1, 12 GA. PURPLE
- #4 CIR. 2, 12 GA. YELLOW
- #5 CIR. 4, 12 GA. BROWN
- #6 CIR. 5, 12 GA. BLUE
- #7 CIR. 6, 12 GA. RED
- #8 CIR. 16, 12 GA. BLACK
- #9 CIR. 9, 12 GA. GREEN

FOR INDIVIDUAL CIRCUIT DETAILS
SEE 12V. CALCULATION SHEETS.

USAGE: 360 A/S MH., 360 A/S PUSHER
33' L/Y MH., 36' L/Y MH.,
34' L/Y PUSHER.



PWR. IN 6 GA. RED

Source:

Todd Engineering
28706 Holiday Pl.
Elkhart, Ind 46517

Vendor P/N BB-9-20

ITEM	PART NUMBER	DESCRIPTION	QTY
TOLERANCES	DRAWN BY R.L.A.		
±	APPROVED BY		
NEXT ASSY	PRODUCT LINE A/S, L/Y, MH/S.		
TITLE 12V. FUSE PANEL			
SCALE NONE	DATE 10/21/93	DRAWING NUM 9524	REV. A

12 VOLT CALCULATIONS

Fuse Position 1, Circuit 7, 20 Amp. Fuse, 12 Ga. Orange
Refer 9.00 Amps.

Fuse Position 2, Circuit 7, 20 Amp. Fuse, 12 Ga. Orange
Refer 9.00 Amps.

Fuse Position 3, Circuit 1, 20 Amp. Fuse, 12 Ga. Purple
#4 Ceiling Light 1.70 Amps.
(2) 1-bulb Wall Lamps 2.00
(2) 10 Watt Halogen Rear Locker Lights 1.80
Bedroom TV 4.20
Fantastic Fan 3.30
Hall Ceiling Light 0.90
(1) Wardrobe Light 0.70
Total 13.90 Amps.

Fuse Position 4, Circuit 2, 20 Amp. Fuse, 12 Ga. Yellow
Bath Fan 2.00 Amps.
Water Heater Ignition 1.00
(2) 2-bulb Bath Vanity Lights 4.00
Furnace #1 6.50
Total 13.50 Amps.

Fuse Position 5, Circuit 4, 20 Amp. Fuse, 12 Ga. Brown
Stereo System 13.00 Amps.
(2) 1-bulb Aisle Lights 0.30
(2) 2-bulb Aisle Light 0.60
Patio Light 1.04
Step Light 1.00
Total 15.94 Amps.

Fuse Position 6, Circuit 5, 20 Amp. Fuse, 12 Ga. Blue
Fantastic Ceiling Fan 3.30 Amps.
3-bulb Dinette Light 3.40
(4) Halogen Locker Lights 3.60
Total 10.30 Amps.

Fuse Position 7, Circuit 6, 20 Amp. Fuse, 12 Ga. Red
Oven Light 1.00 Amps.
(12) Compartment Lights 12.00
Furnace #2 6.50
Total 19.50 Amps.

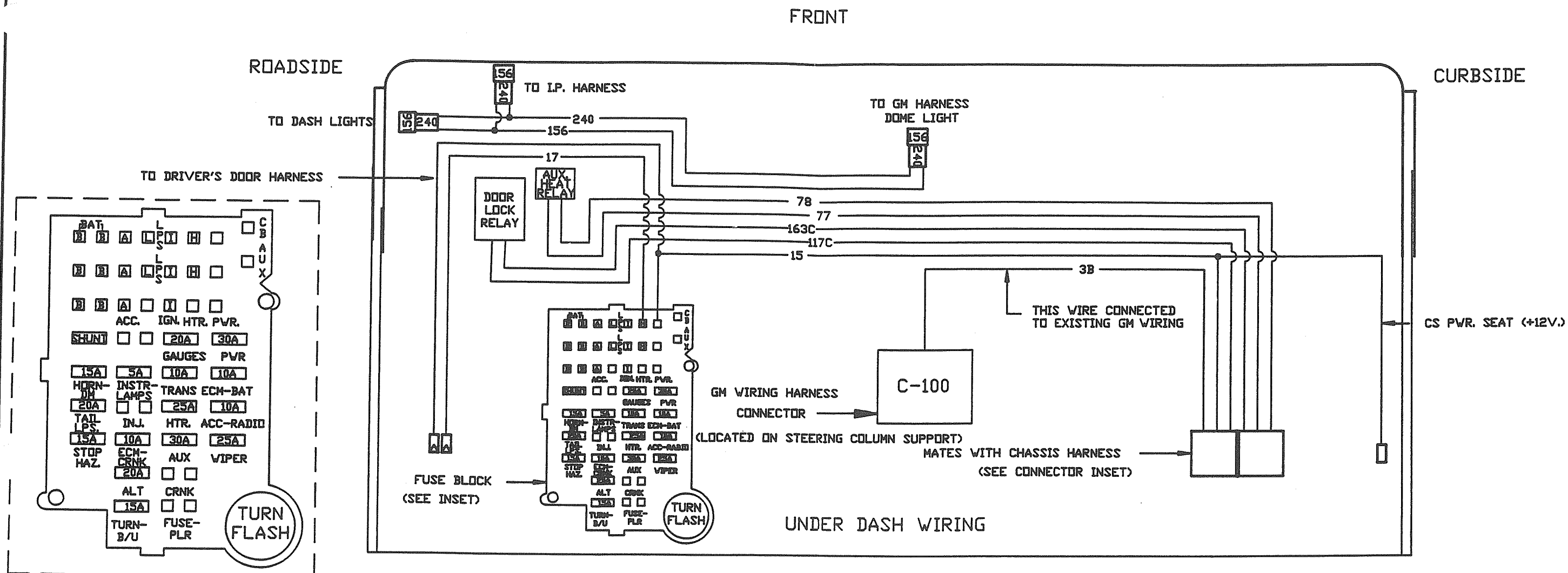
Fuse Position 8, Circuit 16, 20 Amp. Fuse, 12 Ga. Black
#1, 2, and 3 Ceiling Lights 5.10 Amps.
Portable Cooler 5.50
Bath Ceiling Light 0.90
(2) Wardrobe Lights 1.40
Total 12.90 Amps.

Fuse Position 9, Circuit 9, 20 Amp. Fuse, 12 Ga. Green
Galley Locker Light 0.90 Amps.
Water Pump 7.00
Range Vent Solenoid 1.00
Total 8.90 Amps.

Battery Charger 3.00 Amps. Total Amp. Draw 115.94
1st 20 Amps. @ 100% = 20.00 Amps.
2nd 20 Amps. @ 50% = 10.00 Amps.
75.94 @ 25% = 18.98 Amps.
Total 48.98 Amps.

FIREWALL HARNESS (AUX. HEAT,PWR. SEAT,COMP. LOCK WIRING)

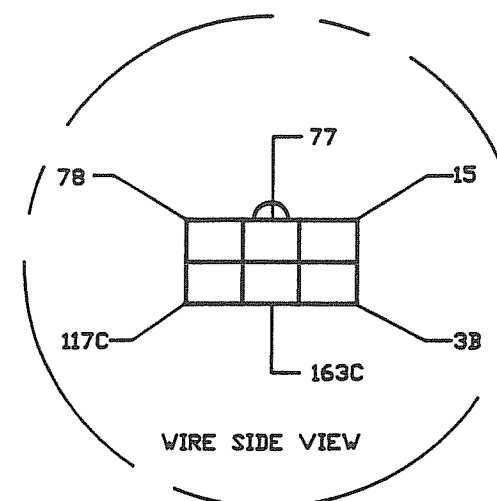
LET	DATE	ECN	REVISION RECORD	BY
	9/92	14395	Production Release	RA



No.	Ga.	Color	Cutting Length	Function	No.	Ga.	Color	Cutting Length	Function
05	18	ORANGE		AUTO BAT. LEVEL	156	16	GREEN		DOME LT. GROUND
08	16	GRAY		IP. L.T.S.	171	14	BLACK/WHT.		+12V. DOOR LOCK
3	12	ORANGE		CIG. LIGHTERS	240	16	ORANGE		DOME LT. POWER
4	12	BROWN		+12V.	13	12	BLUE		+12V. AUX. HEATER
14	14	BLUE		+12V. (DRIVE L.T.S.)	77	12	RED		AUX. HEAT (L.D.)
15	12	RED		+12V. SEATS/WIND	78	12	RED/DRNG.		AUX. HEAT SV. (L.D.)
17	14	ORANGE		MIRRORS	78S	12	DRNG./WHT.		AUX. HEAT (HD)
18	14	YELLOW		MONITOR/JACKS	117C	14	PINK		AUX. HEAT SV. (HD)
19	14	BROWN		CLEARANCE L.T.S.	163C	16	PURPLE		DOOR UNLOCK
20	14	BLUE/WHT.		DRIVE LT. RELAY	CP	10	RED		COMP. UNLOCK (SV.)
22	14	RED		+12V. IGN.	3B	14	YEL./RED		+12V. AIR COMP.
28	12	PURPLE		DOCK L.T.S.					CENTER BRAKE LT.
29	14	YELLOW		AUX. START SW.					
30	14	PURPLE		TV					
34	16	BLUE		HOOD/VISOR L.T.					
36	14	RED		DRIVE LT. PWR.					
39A	10	RED		+12V. STEP					
39C	16	RED		+12V. STEP (IGN.)					
117	16	PINK/BLK.		ALL DOOR LOCK					
163	16	RED/DRNG.		DOOR UNLOCK					

Terminals

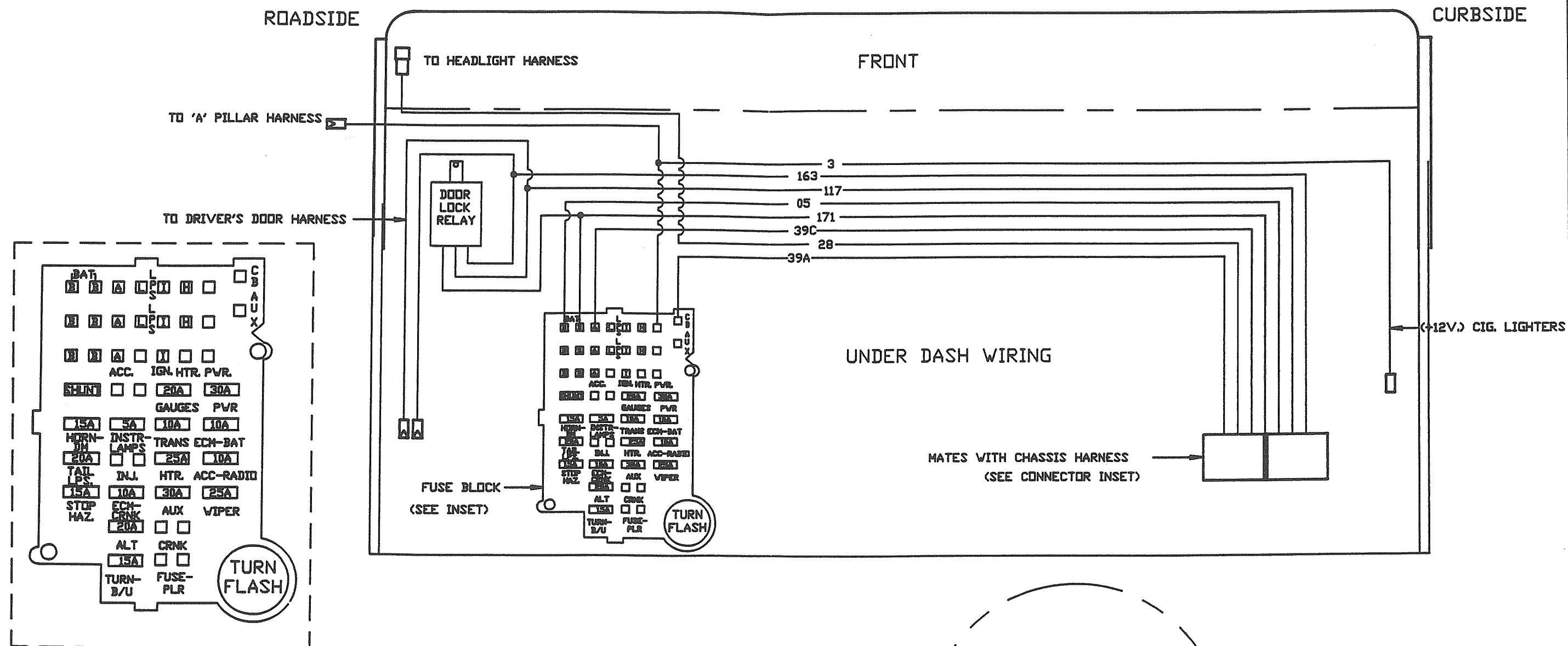
- Bullet .180 Male
- Bullet .180 Female
- Butt Connector
- Ring .250 I.D.
- Spade .250 Female
- Spade .250 Male
- Coax Connector



ITEM	PART NUMBER	DESCRIPTION	QTY
TELECHARGES			
NEXT ASSY			
Airstream PRODUCT LINE L/Y-LEG-A/S MYS.			
12V. LAYOUT-FIREWALL			
SCALE	DATE	DRAWING NUMBER	REV.
1=4	09/92	511012L1	D

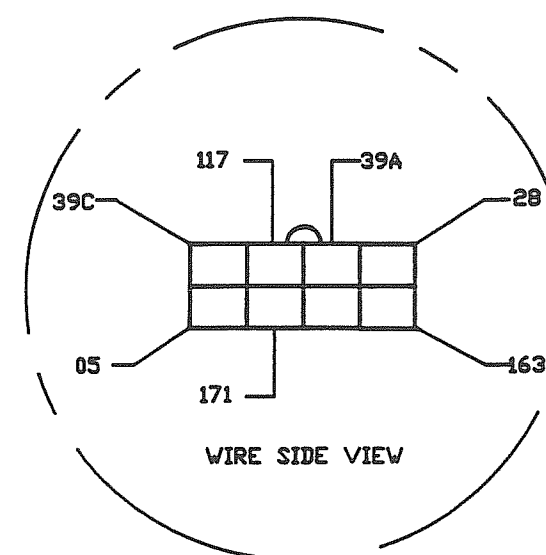
FIREWALL HARNESS (STEP,KEYLESS ENTRY,CONTROL PANEL WIRING)

REV	DATE	ECN	REVISION RECORD	BY
9/92	4395		Production Release	RA



No.	Co.	Color	Cutting Length	Function	No.	Co.	Color	Cutting Length	Function
05	18	ORANGE		AUTO BAT. LEVEL	136	16	GREEN		DOVE L.T. GROUND
08	16	GRAY		1P. L.T.S.	171	14	BLACK/VHT.		+12V. DOOR LOCK
3	12	ORANGE		CIG. LIGHTERS	240	16	ORANGE		DOVE L.T. POWER
4	12	BROWN		+12V.	13	12	BLUE		+12V. AUX. HEATER
14	14	BLUE		+12V.(DRIVE L.T.S)	77	12	RED		AUX. HEAT (LD)
15	12	RED		+12V. SEATS/WIND	77S	12	RED/DRNG.		AUX. HEAT SV.GLD.
17	14	ORANGE		MIRRORS	78	12	ORANGE		AUX. HEAT (HD)
18	14	YELLOW		MONITOR/JACKS	78S	12	DRNG/VHT.		AUX. HEAT SV.GHD.
19	14	BROWN		CLEARANCE L.T.S.	117C	14	PINK		DOOR LOCK (SV)
20	14	BLUE/VHT.		DRIVE L.T. RELAY	163C	16	PURPLE		COMP. LOCK(SV)
22	14	RED		+12V. IGN.	CP	10	RED		+12V. AIR COMP.
28	12	PURPLE		DOCK L.T.S.	38	14	YEL/RED		CENTER BRAKE L.T.
29	14	YELLOW		AUX. START SOL.					
30	14	PURPLE		TV					
34	16	BLUE		HOOD/VISOR L.T.					
36	14	RED		DRIVE L.T. PWR.					
39A	10	RED		+12V. STEP					
39C	16	RED		+12V. STEP (IGN)					
117	16	PINK/BLK.		ALL DOOR LOCK					
163	16	RED/DRNG.		DOOR UNLOCK					

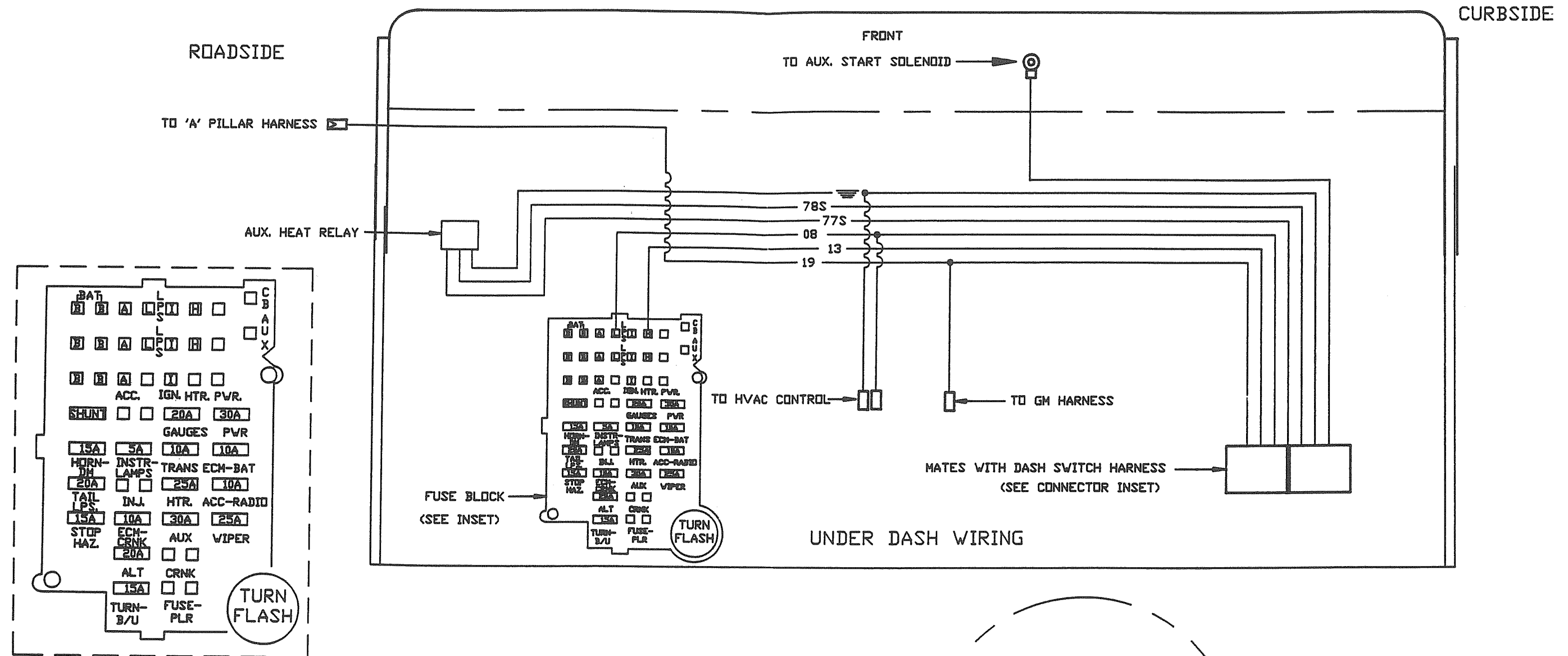
Terminals	
	Bullet .180 Male
	Bullet .180 Female
	Butt Connector
	Ring .250 I.D.
	Spade .250 Female
	Spade .250 Male
	Coax Connector



ITEM	PART NUMBER	DESCRIPTION	REV.
TELEPHONE		Airstream	DRAWN BY RLA
MOY ASSY		PRODUCT LINE L/Y-LEG-A/S MYS.	APPROVED BY
TITLE	12V. LAYOUT-FIREWALL		
SCALE 1=4	DATE 09/92	DRAWING NUMBER 511012L2	REV. D

FIREWALL HARNESS (AUX. HEAT, AUX. START, I.P. LT. WIRING)

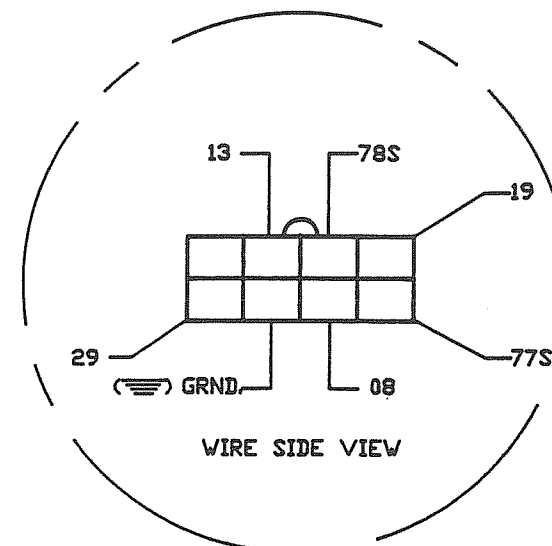
LET	DATE	ECN	REVISION RECORD	BY
9/92	4395		Production Release	RA



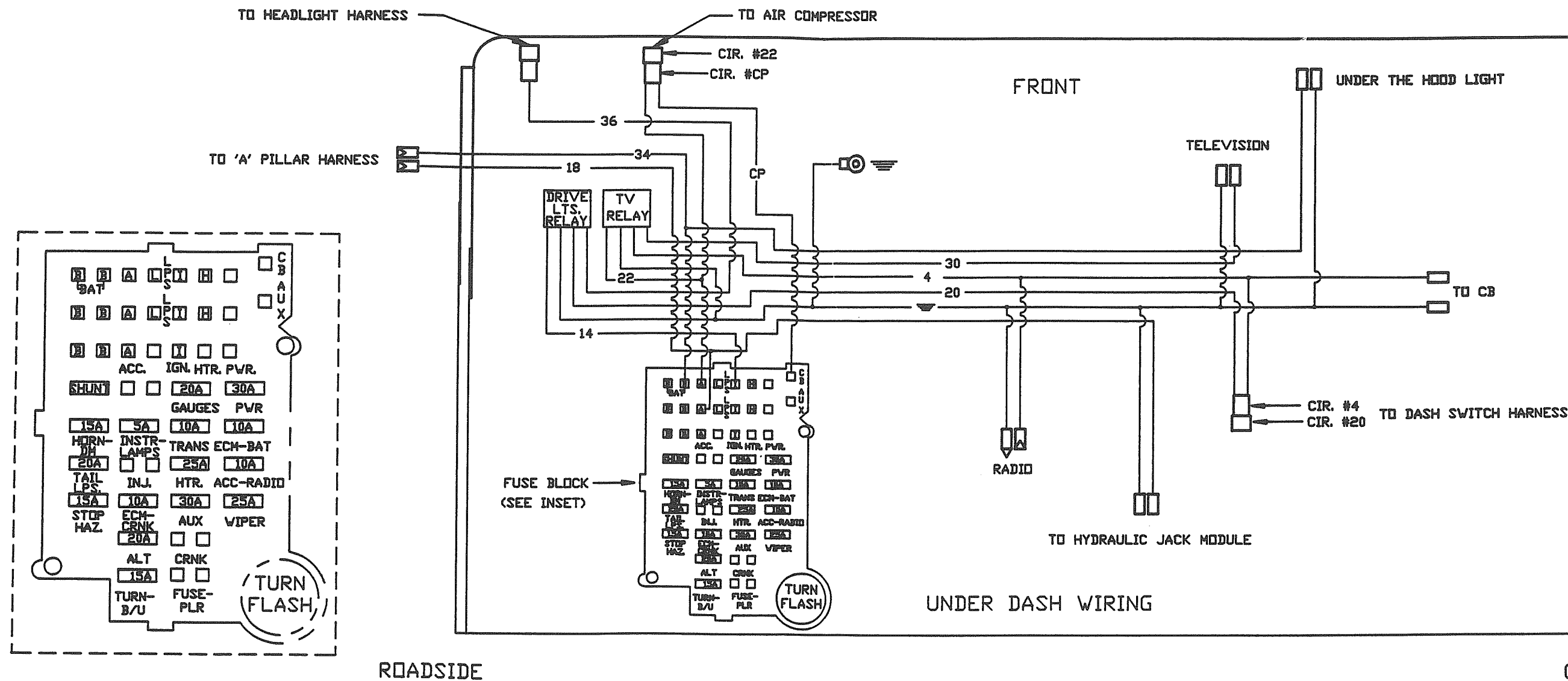
No.	Ga.	Color	Cutting Length	Function	No.	Ga.	Color	Cutting Length	Function
05	18	ORANGE		AUTO BAT. LEVEL	156	16	GREEN		DOVE LT. GROUND
08	16	GRAY		I.P. LTS.	171	14	BLACK/WHT.		+12V. DOOR LOCK
3	12	ORANGE		CIG. LIGHTERS	240	16	ORANGE		DOVE LT. POWER
4	12	BROWN		+12V.	13	12	BLUE		+12V. AUX. HEATER
14	14	BLUE		+12V. (DRIVE LTS)	77	12	RED		AUX. HEAT (LD)
15	12	RED		+12V. SEATS/WIND	77S	12	RED/DRNG.		AUX. HEAT SV. (LD)
17	14	ORANGE		MIRRORS	78	12	ORANGE		AUX. HEAT (HD)
18	14	YELLOW		MONITOR/JACKS	78S	12	DRNG/WHT.		AUX. HEAT SV. (HD)
19	14	BROWN		CLEARANCE LTS.	817C	14	PINK		DOOR LOCK (SV)
20	14	BLUE/WHT.		DRIVE LT. RELAY	163	16	RED/DRNG.		DOOR UNLOCK
22	14	RED		+12V. IGN.	163C	16	PURPLE		COMP. UNLOCK (SV)
28	12	PURPLE		DOCK LTS.	CP	10	RED		+12V. AIR COMP.
29	14	YELLOW		AUX. START SOL.	38	14	YEL/RED		CENTER BRAKE LT.
30	14	PURPLE		TV					
34	16	BLUE		HOOD/VISOR LT.					
35	14	RED		DRIVE LT. PWR.					
39A	10	RED		+12V. STEP					
39C	16	RED		+12V. STEP (IGN)					
117	16	PINK/BLK.		ALL DOOR LOCK					
163	16	RED/DRNG.		DOOR UNLOCK					

Terminals

- Bullet .180 Male
- Bullet .180 Female
- Butt Connector
- Ring .250 I.D.
- Spade .250 Female
- Spade .250 Male
- Coax Connector



ITEM	PART NUMBER	DESCRIPTION	QTY
TOLERANCES			
2			
NEXT ASSY			
Airstream		DRAWN BY	RLA
PRODUCT LINE L/Y-LEG-A/S HVS.		APPROVED BY	
TITLE 12V. LAYOUT-FIREWALL			
SCALE	DATE	DRAWING NUMBER	REV.
1=4	09/92	511012L3	D



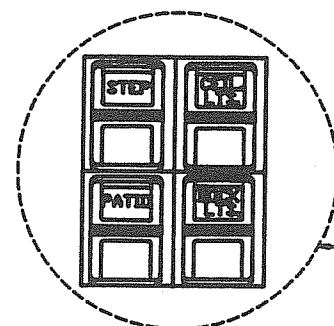
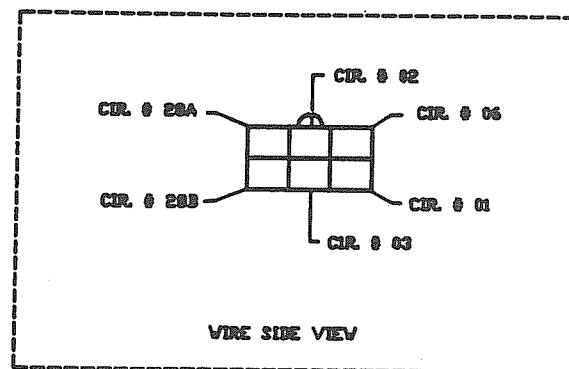
No.	Ga.	Color	Cutting Length	Function	No.	Ga.	Color	Cutting Length	Function
05	18	ORANGE	■	AUTO BAT. LEVEL	156	16	GREEN	■	DOOR L.T. GROUND
08	16	GRAY	■	IP. L.T.S.	171	14	BLACK/WHI.	■	+12V. DOOR LOCK
3	12	ORANGE	■	CIG. LIGHTERS	240	16	ORANGE	■	DOOR L.T. POWER
4	12	BROWN	■	+12V.	13	12	BLUE	■	+12V. AUX. HEATER
14	14	BLUE	■	+12V. (DRIVE L.T.S.)	77	12	RED	■	AUX. HEAT (LD)
15	12	RED	■	+12V. SEATS/VIND.	77S	12	RED/DRNG.	■	AUX. HEAT SV. (LD)
17	14	ORANGE	■	WIRING	78	12	ORANGE	■	AUX. HEAT QTD
18	14	YELLOW	■	MONITOR/JACKS	78S	12	DRNG/WHI.	■	AUX. HEAT SV. (HD)
19	14	BROWN	■	CLEARANCE L.T.S.	117C	14	PINK	■	DOOR LOCK (SV.)
20	14	BLUE/WHI.	■	DRIVE L.T. RELAY	163	16	RED/DRNG.	■	DOOR UNLOCK
22	14	RED	■	+12V. IGN.	163C	16	PURPLE	■	COMPL. UNLOCK (SV.)
28	12	PURPLE	■	DOCK L.T.S.	CP	10	RED	■	+12V. AIR COMP.
29	14	YELLOW	■	AUX. START SOL.	3B	14	YEL/RED	■	CENTER BRAKE L.T.
30	14	PURPLE	■	TV					
34	16	BLUE	■	HOOD/VISOR L.T.					
36	14	RED	■	DRIVE L.T. PWR.					
39A	10	RED	■	+12V. STEP					
39C	16	RED	■	+12V. STEP (IGN.)					
117	16	PINK/BLK	■	ALL DOOR LOCK					
163	16	RED/DRNG.	■	DOOR UNLOCK					

Terminals	
	Bullet .180 Male
	Bullet .180 Female
	Butt Connector
	Ring .250 I.D.
	Spade .250 Female
	Spade .250 Male
	Coax Connector

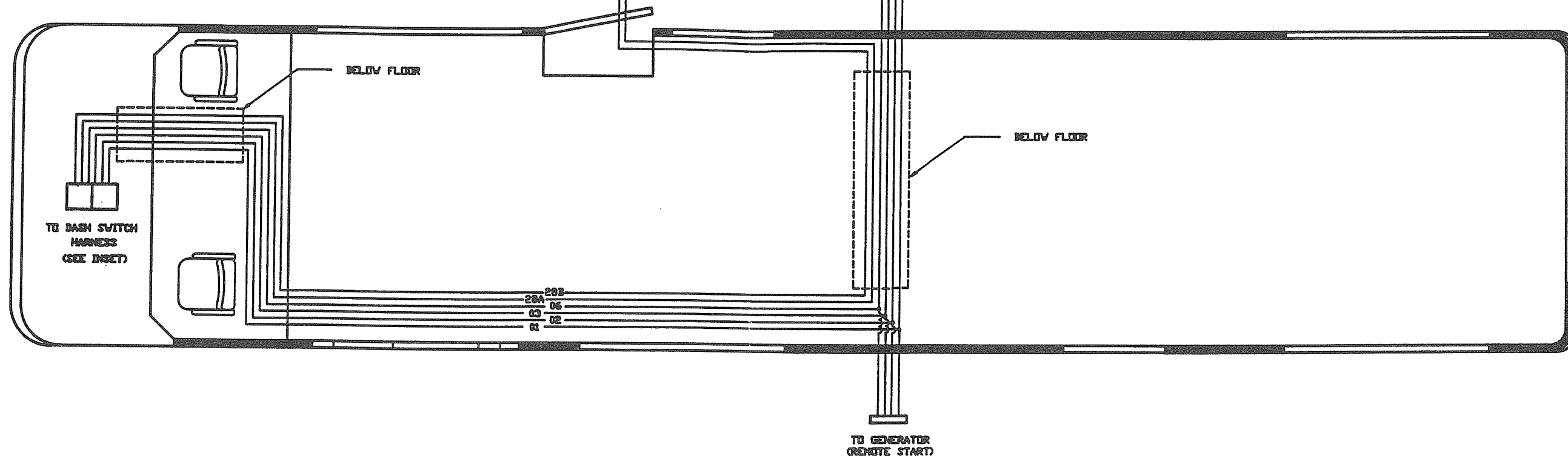
ITEM	PART NUMBER	DESCRIPTION	QTY
TERMINALS			
NEAT ASST			
Airstream			
PRODUCT LINE L/Y-LEG-A/S HH'S.			
TITLE 12V. LAYOUT-FIREWALL			
SCALE 1=4	DATE 09/92	DRAWING NUMBER 511012L 4	REV. D

PAGE 1 OF 4
CHASSIS HARNESS (GENERATOR & DOCK LT. WIRING)

LET	DATE	ECN	REVISION RECORD	BY
	9/92	4395	Production Release	RA



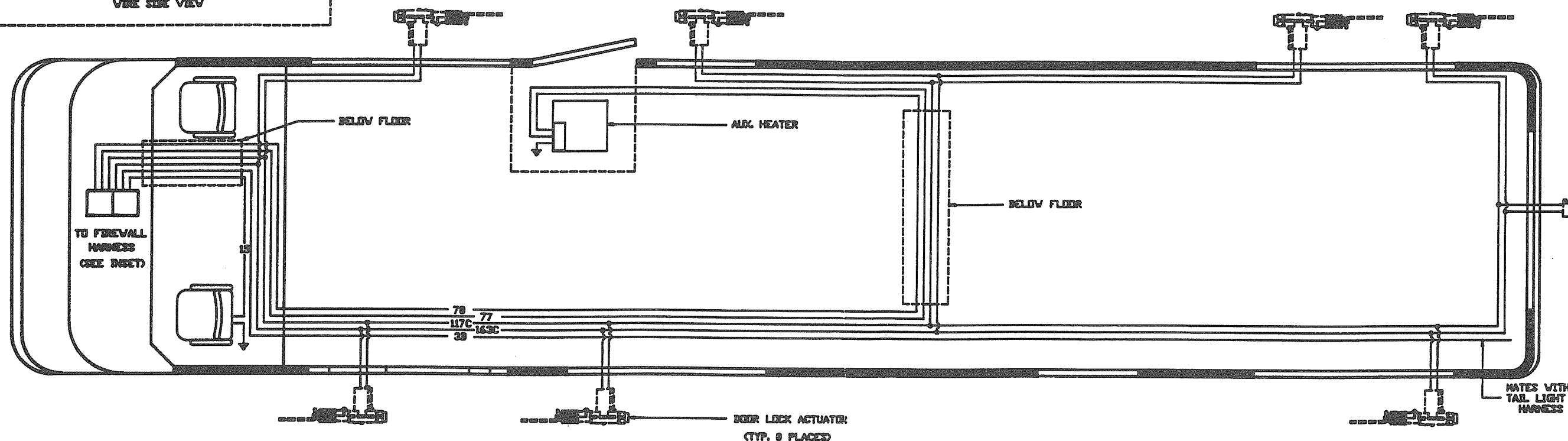
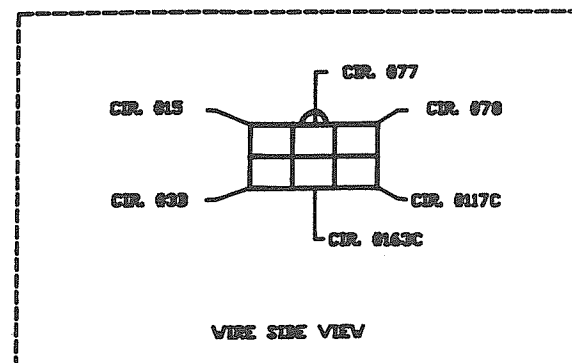
HATES WITH CONNECTOR ON CONTROL PANEL



No.	Ga.	Color	Cutting Length	FUNCTION
01	18	BLACK	■	GEN (GROUND)
02	18	BROWN	■	GEN (STOP)
03	18	YELLOW	■	GEN (START)
05	18	ORANGE	■	BAT COND.(ENG)
06	18	RED	■	GEN (HOUR METER)
16	12	BLACK	■	+ 12V
6	12	RED	■	+ 12V
21	12	GREEN	■	AISE LT.
28	12	PURPLE	■	DOCK LT.
30	12	BLUE/WHT.	■	LPG GAUGE
37	18	BLACK/RED	■	DOOR LOCK LT.
39A	10	RED	■	+12V. (STEP)
39B	16	RED/WHT.	■	STEP SV.
39C	16	RED	■	+ 12V (STEP-IGN.)
39D	16	RED/WHT.	■	STEP SV.
39E	16	YELLOW	■	+ 12V (STEP-IGN.)
15	12	RED	■	+ 12V.
77	12	RED	■	AUX. HEAT (LD)
78	12	ORANGE	■	AUX. HEAT (HD)

No.	Ga.	Color	Cutting Length	FUNCTION
163C	14	PURPLE	■	COMP. UNLOCK SW.
117	14	PINK/BLK.	■	COMP. LOCK
117C	14	PINK	■	COMP. LOCK SW.
118	14	PINK/ORNG.	■	UNLOCK DRIVE DR.
119	16	PINK/YEL.	■	LOCK INPUT
120	16	PINK/GRN.	■	UNLOCK INPUT
163	14	RED/ORNG.	■	UNLOCK MAIN DR.
171	14	BLACK/WHT.	■	+ 12V.
4	12	BROWN	■	+ 12V.
38	14	YEL/RED	■	CNTR. BRAKE LT.
28A	12	PURP/WHT.	■	DOCK LT. SW.
28B	12	PURP/WHT.	■	DOCK LT. SW.

ITEM	PART NUMBER	DESCRIPTION	QTY
TOLERANCES		Airstream	TRAVEL BY
NEXT ASSY			RLA
		PRODUCT LINE	APPROVED BY
		LY-LEGASMS	
TITLE 12V. LAYOUT-CHASSIS			
SCALE	DATE	REVISED	REV.
1-16	09/02/92	511011L1	D



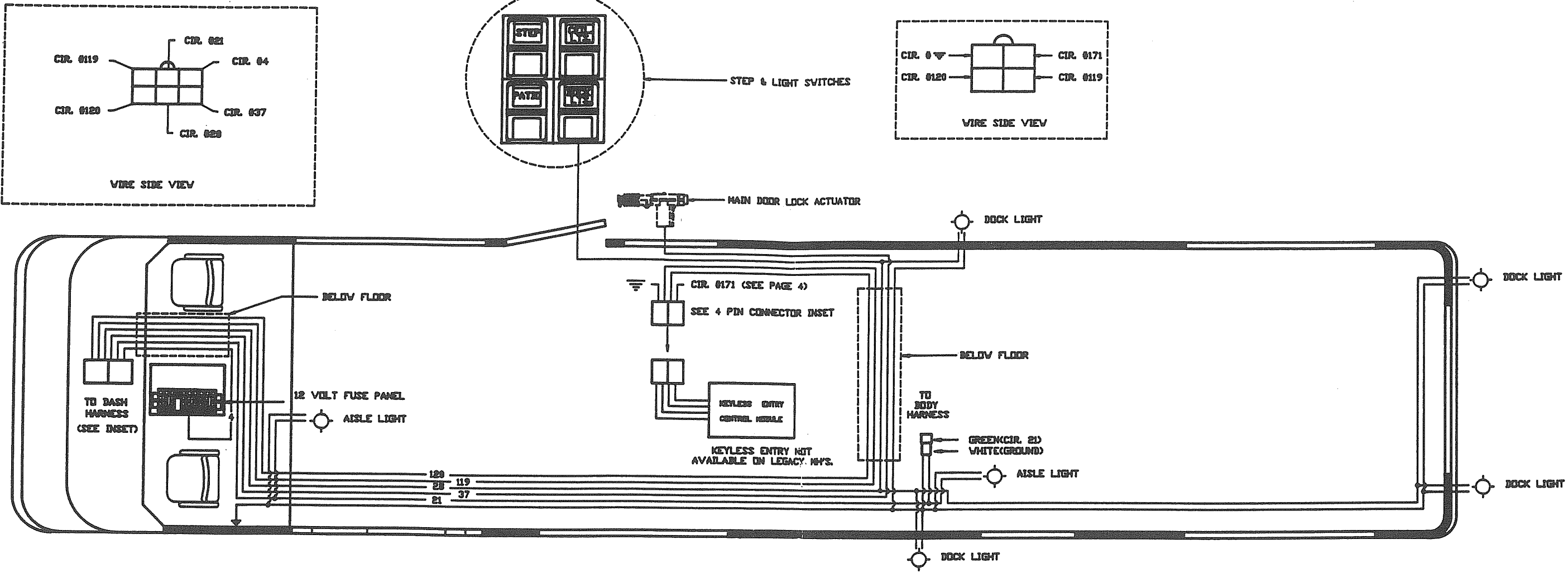
No.	Ga	Color	Cutting Length	FUNCTION
01	18	BLACK	■	GEN (GROUND)
02	18	BROWN	■	GEN (STOP)
03	18	YELLOW	■	GEN (START)
05	18	ORANGE	■	BAT COND.(ENG)
06	18	RED	■	GEN (HOUR METER)
16	12	BLACK	■	+ 12V
6	12	RED	■	+ 12V
21	12	GREEN	■	AISLE LT.
28	12	PURPLE	■	DOCK LT.
30	12	BLUE/WHT.	■	LPG GAUGE
37	18	BLACK/RED	■	DOOR LOCK LT.
39A	10	RED	■	+12V. (STEP)
39B	16	RED/WHT.	■	STEP SV.
39C	16	RED	■	+ 12V (STEP-IGN.)
39D	16	RED/WHT.	■	STEP SV.
39E	16	YELLOW	■	+ 12V (STEP-IGN.)
15	12	RED	■	+ 12V.
77	12	RED	■	AUX. HEAT (LD)
78	12	ORANGE	■	AUX. HEAT (HD)
■	■	■	■	■

No.	Ga	Color	Cutting Length	FUNCTION
163C	14	PURPLE	■	COMP. UNLOCK SV.
117	14	PINK/BLK.	■	COMP. LOCK
117C	14	PINK	■	COMP. LOCK SW.
118	14	PINK/DRNG.	■	UNLOCK DRIVE DR.
119	16	PINK/YEL.	■	LOCK INPUT
120	16	PINK/GRN.	■	UNLOCK INPUT
163	14	RED/DRNG.	■	UNLOCK MAIN DR.
171	14	BLACK/WHT.	■	+ 12V.
4	12	BROWN	■	+ 12V.
38	14	YEL/RED	■	CNTR. BRAKE LT.
28A	12	PURP/WHT.	■	DOCK LT. SV.
28B	12	PURP/WHT.	■	DOCK LT. SV.

ITEM	PART NUMBER	DESCRIPTION	QTY
TELEPHONE	5	Airstream PRODUCT LINE LY,LEGASHLS.	DRAWN BY RLA
RECYCLED	ASBY		
TITLE 12V. LAYOUT-CHASSIS			
SCALE 1=16	DATE 08/17/92	DRAWING NUMBER 511011L2	REV. D

CHASSIS HARNESS (DOOR LOCK SW, AISLE LT, DOCK LT. WIRING)

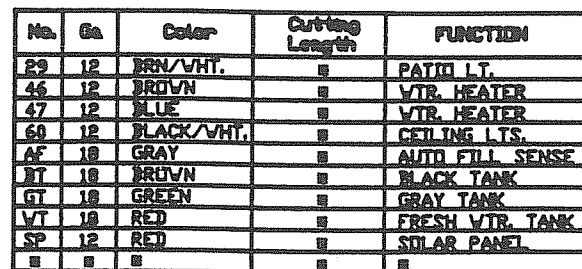
LET	DATE	ECN	REVISION RECORD	BY
	9/92	4395	Production Release	RA

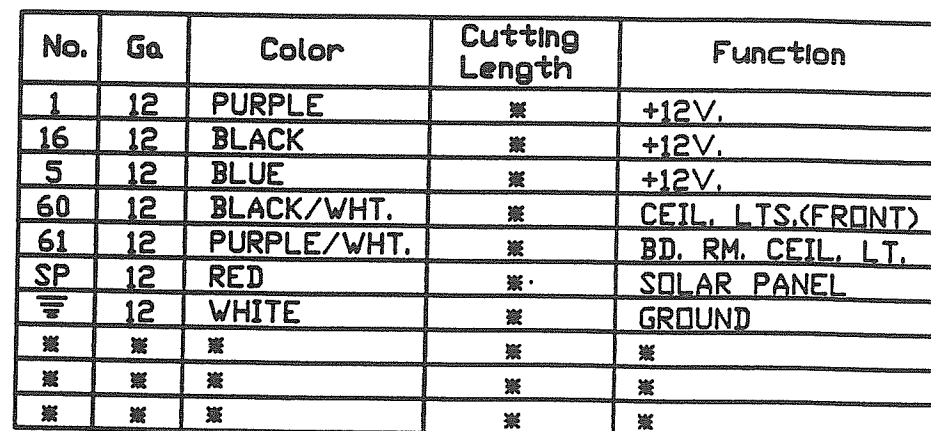


No.	Ga	Color	Cutting Length	FUNCTION
01	18	BLACK	■	GEN (GROUND)
02	18	BROWN	■	GEN (STOP)
03	18	YELLOW	■	GEN (START)
05	18	ORANGE	■	BAT COND.(ENG)
06	18	RED	■	GEN (HOUR METER)
16	12	BLACK	■	+ 12V
6	12	RED	■	+ 12V
21	12	GREEN	■	AISLE LT.
28	12	PURPLE	■	DOCK LT.
30	12	BLUE/WHT.	■	LPG GAUGE
37	18	BLACK/RED	■	DOOR LOCK LT.
39A	10	RED	■	+12V. (STEP)
39B	16	RED/WHT.	■	STEP SW.
39C	16	RED	■	+ 12V (STEP-IGN.)
39D	16	RED/WHT.	■	STEP SW.
39E	16	YELLOW	■	+ 12V (STEP-IGN.)
15	12	RED	■	+ 12V.
77	12	RED	■	AUX. HEAT (LD)
78	12	ORANGE	■	AUX. HEAT (HI)
■	■	■	■	■








No.	Ga	Color	Cutting Length	FUNCTION
163C	14	PURPLE	■	COMP. UNLOCK SW.
117	14	PINK/BLK.	■	COMP. LOCK
117C	14	PINK	■	COMP. LOCK SW.
118	14	PINK/ORNG.	■	UNLOCK DRIVE DR.
119	16	PINK/YEL.	■	LOCK INPUT
120	16	PINK/GRN.	■	UNLOCK INPUT
163	14	RED/ORNG.	■	UNLOCK MAIN DR.
171	14	BLACK/WHT.	■	+ 12V.
4	12	BROWN	■	+ 12V.
3B	14	YEL/RED	■	CNTR. BRAKE LT.
28A	12	PURP/WHT.	■	DOCK LT. SW.
28B	12	PURP/WHT.	■	DOCK LT. SW.

ITEM	PART NUMBER	DESCRIPTION	QTY
Airstream		PRODUCT LINE L.V. LEGASMSLS.	
TITLE 12V. LAYOUT-CHASSIS			
SCALE 1=16	DATE 09/17/92	DESIGNED BY 5110113	REV. D

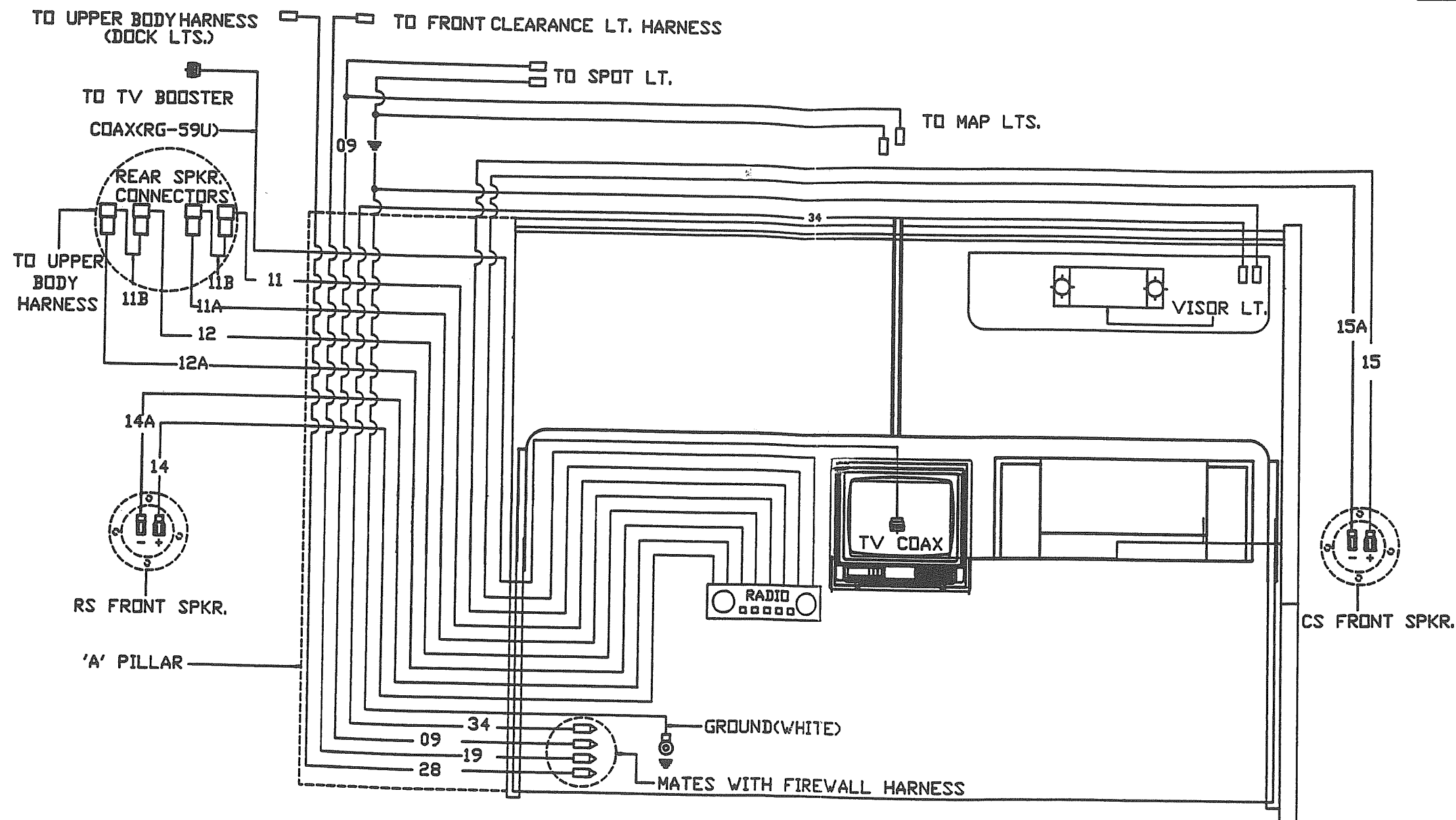




Terminals

	Bullet .180 Male
	Bullet .180 Female
	Butt Connector
	Ring .250 I.D.
	Spade .250 Female
	Spade .250 Male
	Coax Connector

ITEM	PAGE NUMBER	DESCRIPTION	QTY
TELEPHONES 2		Airstream	DRAWN BY J. L. LAYTON
MEAT ASSTY		FREIGHT LINE LYLEG MOTORHOME	APPROVED BY
TITLE 12V. LAYOUT-CEILING			
SCALE 1/4"=1'	DATE 08-21-92	DRAWN NUMBER 5110141	REV. D

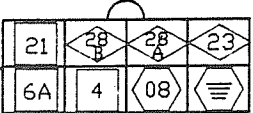
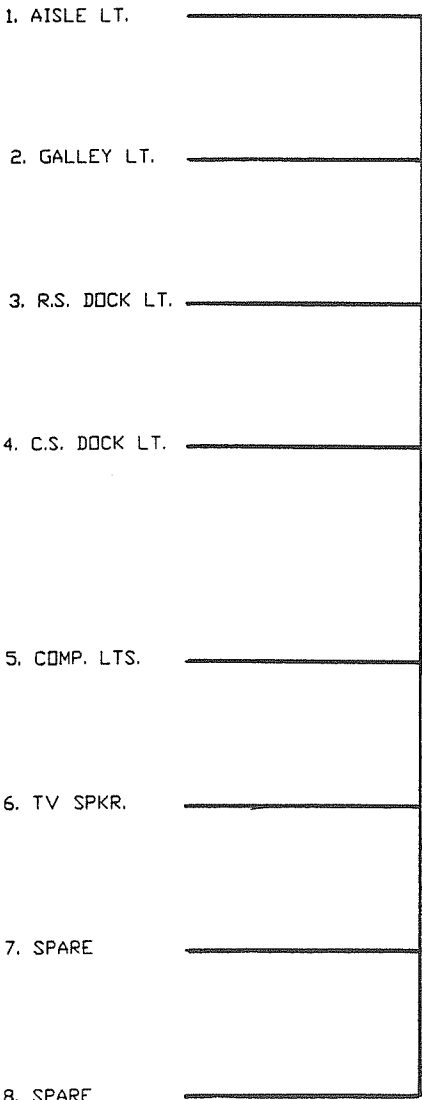


No.	Ga	Color	Cutting Length	Function
09	12	YELLOW	*	SPOT/MAP LTS.
11	18	GRAY	*	LT. SPKR. REAR(+)
11A	18	BLACK	*	LT. SPKR. REAR(-)
11B	18	YELLOW	*	SPEAKER WIRE
12	18	ORANGE	*	RT. SPKR. REAR(+)
12A	18	BLACK/WHT.	*	RT. SPKR. REAR(-)
14	18	BLUE	*	LT. SPKR. FRONT(+)
14A	18	BLACK	*	LT. SPKR. FRONT(-)
15	18	RED	*	RT. SPKR. FRONT(+)
15A	18	BLACK/WHT.	*	RT. SPKR. FRONT(-)

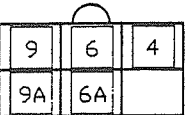
No.	Ga	Color	Cutting Length	Function
18	14	YELLOW	*	MONITOR
19	14	BROWN	*	CLEARANCE LTS.
27	14	BLUE	*	MONITOR
28	12	PURPLE	*	DOCK LTS.
34	16	BLUE	*	VISOR LT.
*	*	*	*	*
*	*	*	*	*
*	*	*	*	*
*	*	*	*	*
*	*	*	*	*

ITEM	POST NUMBER	DESCRIPTION	QTY
TELECHARGES			
NEXT ASBY			
Airstream			
FURNITURE LINE L/Y/LEG. MOTORHOME			
TITLE SCHEMATIC-12V 'A' POST			
SCALE 1=4	DATE 08/07/92	DRAWING NUMBER 510941L	REV. D

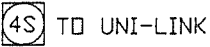
SWITCH WIRING, DASH



TO FIREWALL HARNESS
"FEMALE TERMS"
(PACKARD TYP.)



TO BODY, INTERIOR
"MALE TERMS"

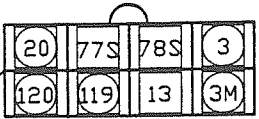


SW.#	CONNECTOR PIN NUMBER							
	2	3	4	6	LT. PINS 3&4		LT. PINS 5&6	
1 AISLE LTS.	4 12BRN.	*	21 12GRN/WHT	*	*	*	08 16 GRAY	16 WHITE
2 GAL. LT.	9 12GRN.	*	9A 12GRN/YEL	*	*	*	08 16 GRAY	16 WHITE
3 R.S. DOCK	23 10PNK.	*	28A 10PUR/YEL	*	28A 16PUR/YEL	16 WHT.	08 16 GRAY	16 WHITE
4 C.S. DOCK	23 10PNK.	*	28B 10YEL/PUR	*	28B 16YEL/PUR	WHT.	08 16 GRAY	16 WHITE
5 COMP. LTS.	6 12RED	*	6A 12RED/GRN	*	*	*	08 16 GRAY	16 WHITE
6 TV SPKR.	4 14BRN.	*	4S 14BLU	*	*	*	08 16 GRAY	16 WHITE
7 SPARE	*	*	*	*	*	*	*	*
8 SPARE	*	*	*	*	*	*	*	*

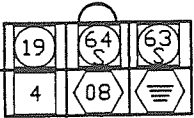
No.	Ga	Color	Function
08	16	GRAY	I.P. LTS.
4	12	BROWN	+12V.
6	12	RED	+12V.
6A	12	RED/GRN.	COMP. LTS.
9	12	GREEN	+12V.
9A	12	GREEN/YEL.	GALLEY LT.
21	12	GREEN/WHT.	AISLE LT.
23	10	PINK	+12V.
28A	10	PURPLE/YEL.	DOCKS LTS.(R.S.)
28B	10	YELLOW/PURP	DOCKS LTS.(C.S.)
4S	14	BLUE	TV SPKR.
*	*	*	*
*	*	*	*
*	*	*	*

SWITCH WIRING, ARMREST

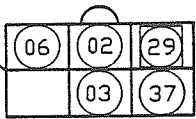
1. DOOR LOCK
2. AUX. START
3. GENERATOR
4. REAR HEAT
5. CAMERA
6. DRIVE LTS.
7. MAP LTS.
8. SPARE



TO FIREWALL HARNESS
"MALE TERMS"
(PACKARD TYP.)



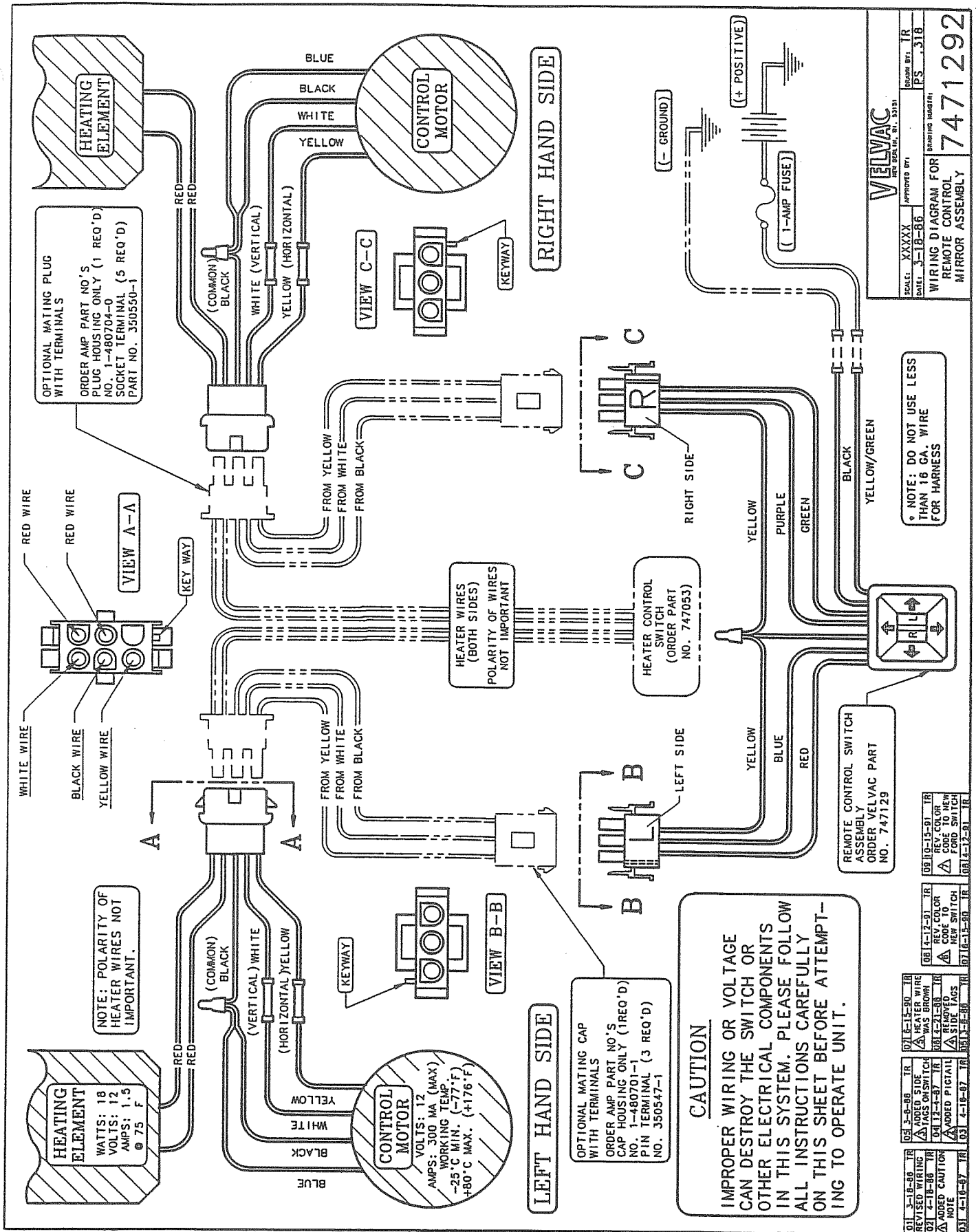
TO FIREWALL HARNESS
"FEMALE TERMS"



TO BODY, CHASSIS HARNESS
"FEMALE TERMS"

SW.#	CONNECTOR PIN NUMBER							
	2	3	4	6	LT. PINS 3&4		LT. PINS 5&6	
1 DOOR LOCK	4 12BRN.	■	119 (16) PNK/Y	120 (16) PNK/LG	37 (18) BLK/RD	4 14BRN.	08 16 GRAY	16 WHITE
2 AUX. START	4 12BRN.	■	29 4YEL/BLK	■	29 6YEL/BLK	16 WHT.	08 16 GRAY	16 WHITE
3 GEN.	16 WHT.	■	03 18BLU	02 18YEL	06 8GRAY/RED	16 WHT.	08 16 GRAY	16 WHITE
4 REAR HEAT	13 12BLUE	77S 12RD/W	78S 12DR/W	■	■	■	08 16 GRAY	16 WHITE
5 CAMERA	13 14BLU.	■	63S 14BLK.	64S 14GRN.	■	■	08 16 GRAY	16 WHITE
6 DRIVE LTS.	19 14BRN	■	20 14BL/W	■	■	■	08 16 GRAY	16 WHITE
7 MAP LTS.	3 14DRGN	■	3M 14DR/BLU	■	■	■	08 16 GRAY	16 WHITE
8	■	■	■	■	■	■	■	■

No.	Ga.	Color	Function
■	■	■	■
02	18	YELLOW	GEN. (STOP)
03	18	BLUE	GEN. (START)
06	18	GRAY/red	GEN. (HOURMETER)
08	16	GRAY	I.P. LTS.
4	12	BROWN	+12V.
13	12	BLUE	AUX. HEAT +12V.
19	14	BROWN	CLEARANCE LTS.
20	14	BLUE/wht.	DRIVE LT. RELAY
29	14	YELLOW/blk.	AUX. START SDL.
37	18	BLACK/red	LOCK IND. LT.
63S	14	BLACK	CAMERA (SWITCH)
64S	14	GREEN	CAMERA (SWITCH)
77S	12	RED/wht.	AUX. HEAT (LD)
78S	12	ORANGE/wht.	AUX. HEAT (HI)
119	16	PINK/yel.	DOOR LOCK
120	16	PINK/Lt. Grn.	DOOR UNLOCK
3	14	ORANGE	+12V.
3M	14	DRNG/blue	MAP LTS.
■	■	■	■



95251

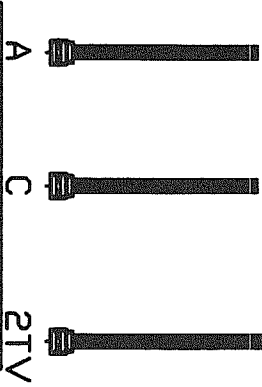
LET	DATE	E.C.N.	REVISION RECORD	BY
	10/94	4467D	PRODUCTION RELEASE	RA

NOTE: Splitter located behind panel
above drivers door or cab window

TO FRONT TV
TO REAR TV

SPLITTER
510621-04

FROM FROM
ANT. CABLE

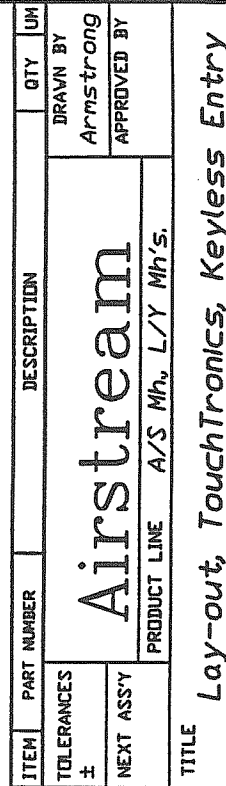


BOOSTER
510788-02

OPEN

THIS CABLE NOT REQUIRED
FOR VCP INSTALLATION

ITEM	PART NUMBER	DESCRIPTION	QTY	UN
TOLERANCES		Airstream	DRAWN BY R.L.A.	
±			APPROVED BY	
NEXT ASSY	PRODUCT LINE		MOTORHOME	
TITLE COAX CABLE CONNECTIONS				
SCALE 1=1	DATE 10/17/94	DRAWING NUMBER 952518	A REV.	



MONITOR PANEL

Operation

To check tank capacities or battery condition, depress the switch marked "test." In order to obtain a true reading on the batteries, you must be unplugged from city power and disconnected from your tow vehicle.

The red indicator light on the left marked "AC Power" will be illuminated when 120 volt alternating current is available. The light will be illuminated whether you're plugged into city power or if your generator is running. There is a built in delay if you're switching back and forth between the two power sources.

The two speed "Hood Fan" has an exterior door that must be unlatched to be effective. You'll see the two small twist latches if you look at the fan from outside the motorhome. In most circumstances you can leave the door unlatched. During storage or adverse weather conditions, latching the door is recommended.

Trouble Shooting Guide

Be sure the wiring to the panel is correct and that the house battery is well charged. All electrical connections must be correct.

NOTE: RV's are subjected to a lot of vibration from traveling on the highways, so always look for broken wires and loose or broken connections.

NOTE: If a RV has exposed holding tanks under the vehicle and the vehicle is operated in the rain, sleet or snow, the panel may show incorrect tank levels due to electrical conductivity on the outside of the tanks. Washing the tanks and sealing the connections on the outside of the well nuts with silicon sealer should correct this condition.

PROBLEM: Fan does not operate.

CAUSE: A. No voltage to switch.
B. Defective switch, defective motor.

REMEDY: 1. Check for voltage, test switch, test motor.

PROBLEM: Fan operates on high speed but not on low speed.

CAUSES: A. Defective circuit board.

REMEDY: 1. Replace circuit board.

PROBLEM: Hood light does not operate.

CAUSES: A. Burned out bulbs..
B. No voltage to switch.
C. Defective switch.

REMEDY: 1. Test for voltage.
2. Test switch.
3. Test bulbs.

PROBLEM: Water pump does not operate.

CAUSES:

- A. No voltage to pump.
- B. Defective switch or pump.
- C. Pump not grounded.

REMEDY:

- 1. Test for voltage at switch.
- 2. Check ground.

PROBLEM: Water pump operates but red indicator light does not come on.

CAUSES:

- A. Faulty LED.
- B. Faulty circuit board.

REMEDY:

- 1. Replace circuit board.

PROBLEM: "E" LED shows but indicator lights for amount of liquid in tank don't show.

CAUSES:

- A. Faulty connection in lead to tank.
- B. Faulty circuit board.

REMEDY:

- 1. Check leads and connections at tank.
- 2. Replace circuit board.

PROBLEM: Condition of battery is not indicated when switch is pushed.

CAUSES:

- A. Faulty switch.
- B. Faulty circuit board.
- C. Circuit board not grounded.
- D. Dead battery.

REMEDY:

- 1. Test Test switch, check ground.
- 2. Change circuit board.
- 3. Charge battery.

PROBLEM: No "E" light on water tanks when switch is pushed.

CAUSES:

- A. No power to panel.
- B. Defective circuit board.

REMEDY:

- 1. Check fuses and power leads.
- 2. Repair or replace panel.

PROBLEM: Improper level indication on one or two tanks.

CAUSES:

- A. Faulty wiring from panel to sensors.
- B. Faulty circuit board.
- C. Dirty sensors and/or tank.

REMEDY:

1. Check wiring to sensors.
2. Clean sensors and tank.
3. Replace tank sensor harness.
4. Replace or repair circuit board.

PROBLEM: Improper level indication on all water tanks.

CAUSES: A. Faulty circuit board.

REMEDY: 1. Replace or repair circuit board.

PROBLEM: Panel shows LPG tank to be full all of the time.

CAUSES:

- A. Connection between tank and panel faulty.
- B. Poor or no ground between tank and vehicle.
- C. Faulty tank sending unit or faulty circuit board.

REMEDY:

1. Check and repair wiring from tank to panel and tank to ground.
2. Repair or replace tank sending unit.
3. Repair or replace circuit board.

PROBLEM: Panel shows LPG tank to be empty all of the time.

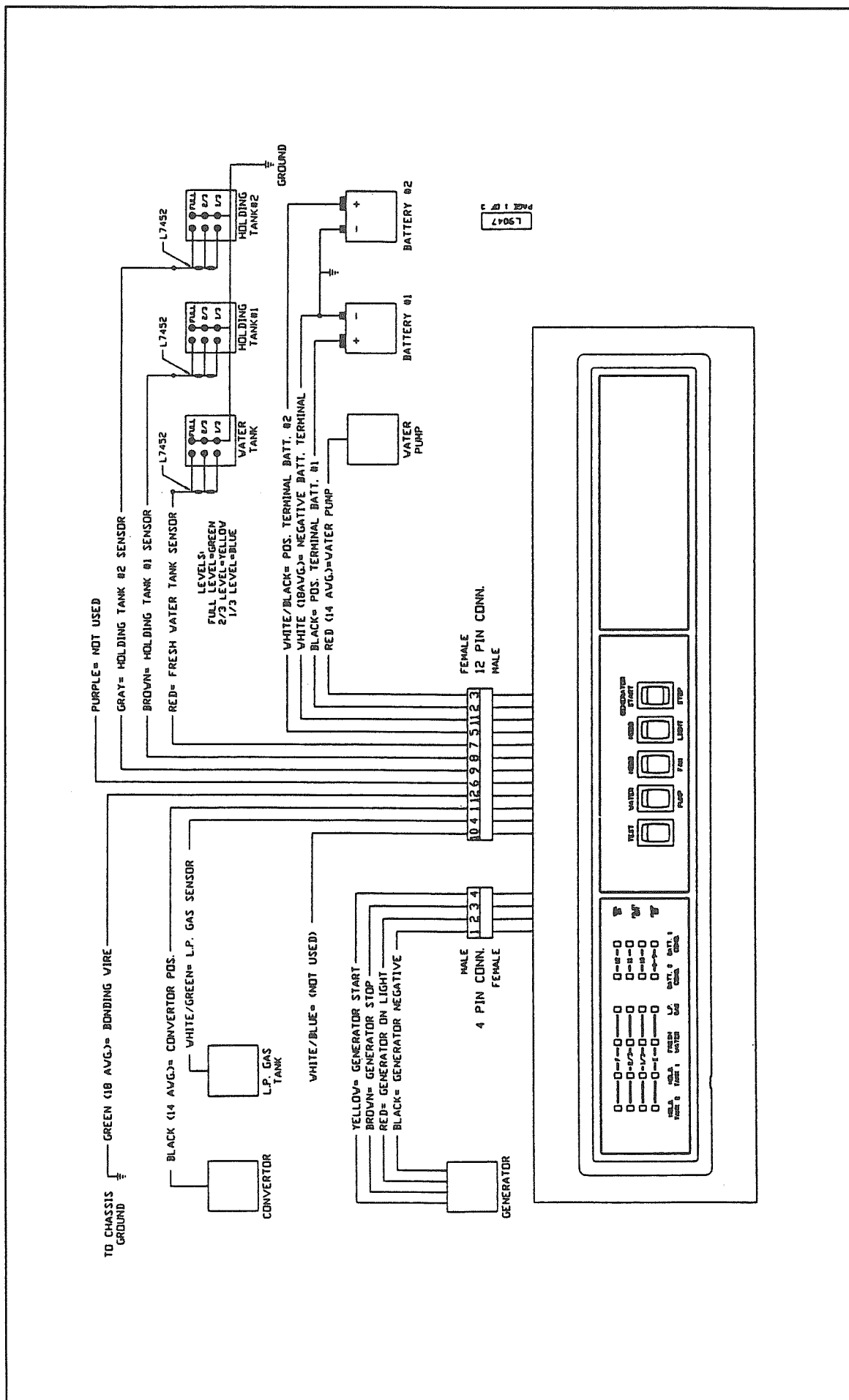
CAUSES:

- A. Short to ground in wire between panel and tank sending unit.
- B. Faulty tank sending unit.
- C. Faulty circuit board.

REMEDY:

1. Repair shorted wire.
2. Repair or replace sending unit.
3. Repair or replace circuit board.

NOTE: If the wire from the panel is removed from the tank, the panel indicator should show the tank full. If the panel wire to the tank is grounded, the panel should show the tank empty.



TV ANTENNA

Manufacturer: Winegard Company
3000 Kirkwood Street
Burlington, Iowa 52601
Phone: 800-843-4741

Raising Antenna to Operating Position

Turn elevating crank in "UP" direction until some resistance to turning is noted. Antenna is now in operating position. Check to make sure switch on front TV jack is on.

Rotating Antenna

Make sure antenna is in "UP" position. Pull down on directional handle with both hands until it disengages ceiling plate and rotate for best picture and sound on television set.

Lowering Antenna to Travel Position

Rotate antenna until pointer on directional handle aligns with pointer on ceiling plate.

WARNING: Antenna must be in "down" position while traveling to prevent damage.

Turn elevating crank in the "Down" direction until resistance is noted. Antenna is now locked in travel position.

Checking Operation

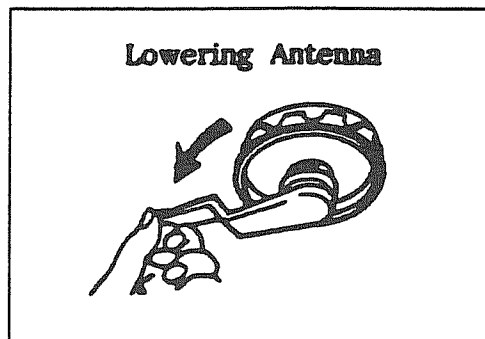
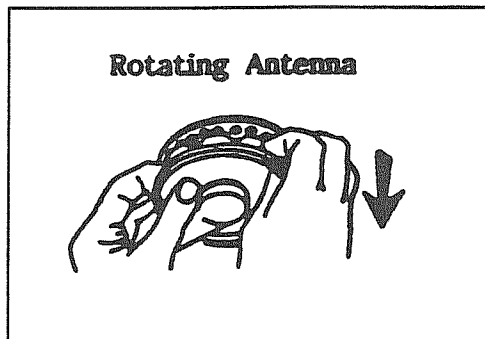
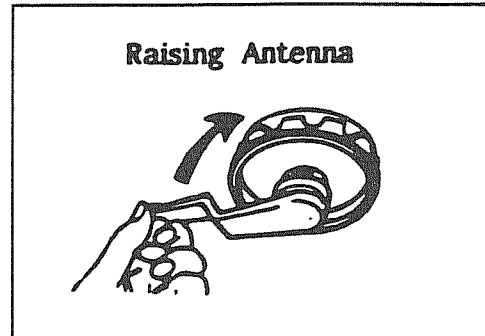
1. Tune TV receiver to nearest station and rotate antenna for lowering Antenna best picture and sound.
2. Turn off switch on power supply. Picture on TV receiver should be considerably degraded with power off.

DO'S

1. Do check parking location for obstructions before raising antenna.
2. Do carefully raise, lower and rotate - if difficult, check for cause.
3. Do rotate slowly when selecting station and check fine tuning on TV set to make sure it is properly adjusted.
4. Do lower antenna before moving vehicle.

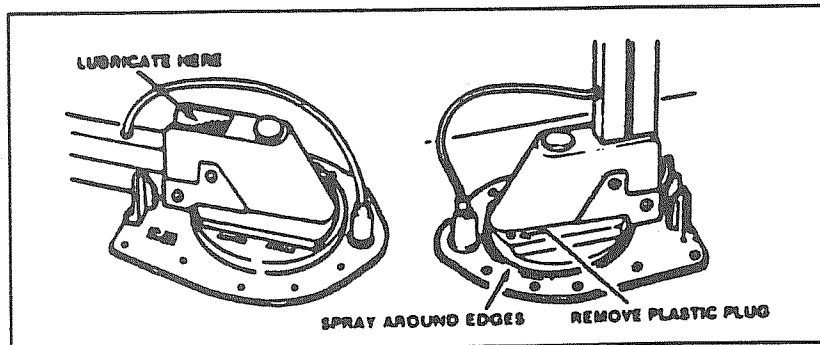
DON'TS

1. Don't force elevating crank up or down. Check for cause of trouble.
2. Don't rotate directional handle hard against stops.
3. Don't travel with lift in up position.
4. Don't leave lift part way up or down.
5. Don't apply sealing compound or paint over top of base plate or anywhere on lift.



Maintenance Lubrication

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



Lubricating Rotating Gear Housing

In the event that rotating the antenna becomes difficult, normal operation can be restored by lubricating the bearing surface between the rotating gear housing and the base plate. Any spray type silicone lubricant may be used.

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

Elevating Shaft Worm Gear Assembly Replacement Procedure

STEP 1: Lower antenna to travel position and refer to drawing to identify parts indicated in steps below.

STEP 2: Loosen set screw on elevating crank (#1) and remove crank (#1), spring (#2), directional handle (#3).

STEP 3: Go to roof of vehicle and Qs remove retaining ring from pin (#5) holding top elevator tube in rotating gear housing and remove pin.

STEP 4: Remove bearing plug (#4) from top of rotating gear housing. Disengage elevating gear (#6) and remove elevating shaft assembly (#7).

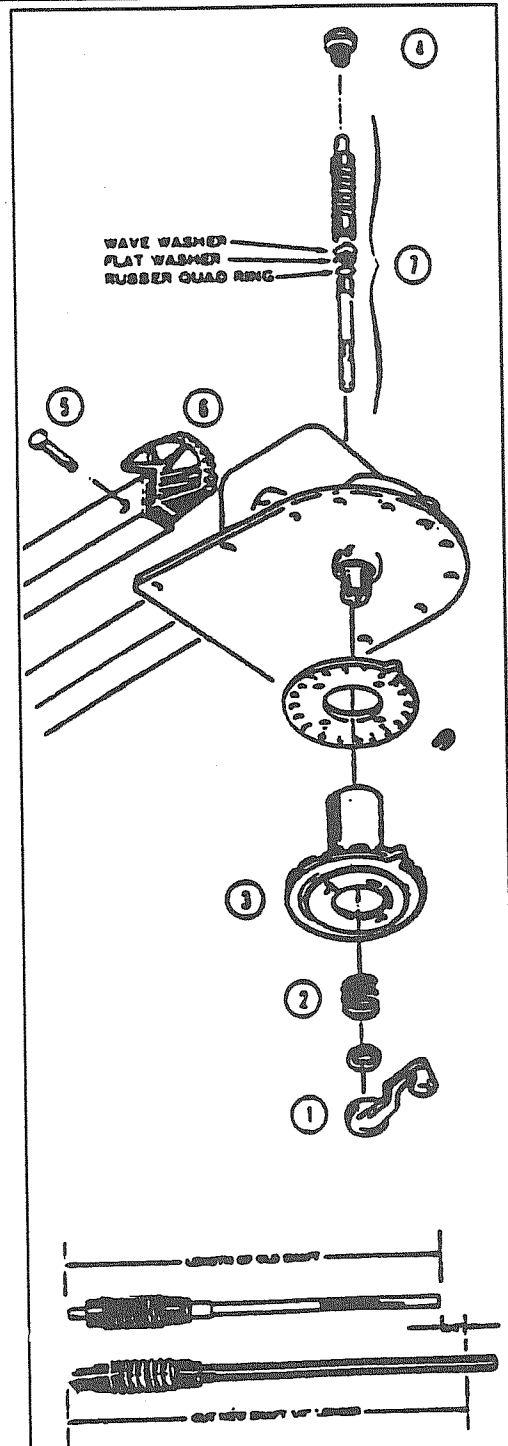
Note: Make sure all parts below worm gear are removed from rotating gear housing. These include bearing, quad ring and one or two washers.

STEP 5: Cut new shaft 1/4" longer than old shaft. See Illus: Discard old bearing plug item (#4).

STEP 6: Lubricate worm gear on new elevating shaft assembly with spray silicone lubricant, make sure quad ring, washer and wave washer are on lower bearing and insert assembly in housing.

STEP 7: Install new plastic bearing plug in top of housing. Re-engage elevating gear in worm gear. Replace pin and retaining ring.

STEP 8: Replace directional handle, spring and elevating crank.. Make sure set screw contacts flat on shaft before tightening.



ANTENNA, RADIO, CB, CELLULAR TELEPHONE

Not including the TV antenna, your motorhome may have as many as three other antenna.

The AM/FM radio antenna is a solid whip type with a flexible coil base. The coil base certainly helps extend the life of the antenna but hitting low branches and other objects at high speed can lead to severe damage.

The optional C.B. antenna, if factory, installed will have been adjusted to obtain maximum performance and no further adjustment should be required.

The lead-in wire from the cellular phone antenna is coiled under the dash behind the kick panel in front of the passenger cab seat. The panel is removed by taking out the screws you can see through the vent grill and there are a couple of screws along the vertical right side of the panel.

SOLAR POWER

Two different solar panel options are available. One is a 5 watt system that primarily functions as a battery maintainer. Memory functions in radios, locks and many circuit boards each draw power in the milliamp range. If a charge source is not available, even these miniscule power drains will run batteries down in seven to twelve days unless the "kill" switch is turned off. Barring an unusual number of cloudy days the 5 watt system will prevent battery discharge even with the kill switch on.

The second option is 53 watt panel or panels. These produce some serious power and a regulator is required to prevent battery over charging. A volt meter is included so the status of the batteries can be monitored at a glance. With a little common sense and cooperation of Mother Nature you can camp in warm weather for days without resorting to any other power source.

The units that are pre-wired for solar will have four wires coiled behind the cluster of switches at the main door.

They are:

Black	12 gauge	ground	terminates at batteries
*Red	12 gauge	positive	terminates at batteries
Green	14 gauge		coiled in exterior refrigerator compartment
Yellow	14 gauge		coiled in exterior refrigerator compartment

*If solar panels installed, code requires a 10 amp in-line fuse be installed in this wire.

110 VOLT POWER

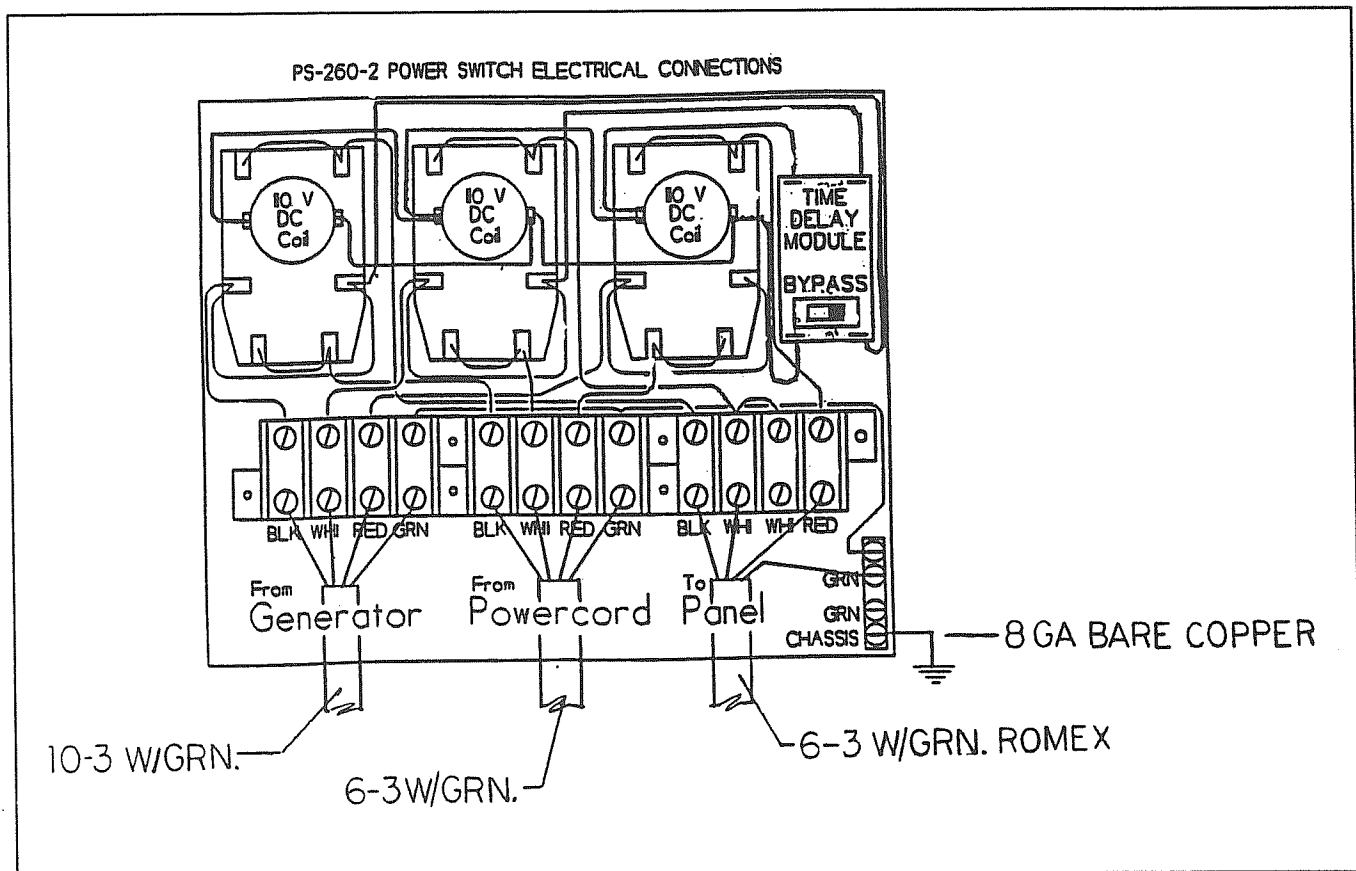
The 110-volt system works very much like your home. When you're plugged into city power or start your generator, power is supplied to the 110-volt circuit breakers. The circuit breakers, located in the foot of the rear bed, then supply the power to the receptacles and appliances. An optional inverter can also supply a limited amount of power to the receptacles.

If a circuit is over loaded or a short circuit occurs, the breakers will "kick" out. To reactivate the circuits, turn the breaker to off, reduce the load or correct the short, and turn the breaker back to on.

One of the breakers is a GFI (Ground Fault Interrupter) breaker. The intent of this breaker is to sense any loss of ground before a harmful shock could occur, and kick the breaker out. These sensitive breakers are installed in the circuit feeding the bathroom, outside receptacle, and galley area. These are the areas where the use of water or the wet ground could put a person in danger of shock. Since the GFI breaker is so sensitive, it is not unusual to have it kick out for no apparent reason.

Getting power to your 110 volt circuits breakers is *nothing* like your home. Since you have two sources of 110 volt power, an automatic switch-over box is used. This prevents both sources of power from feeding your circuits at the same time and prevents your generator power from feeding the city circuits and shocking an unsuspecting lineman.

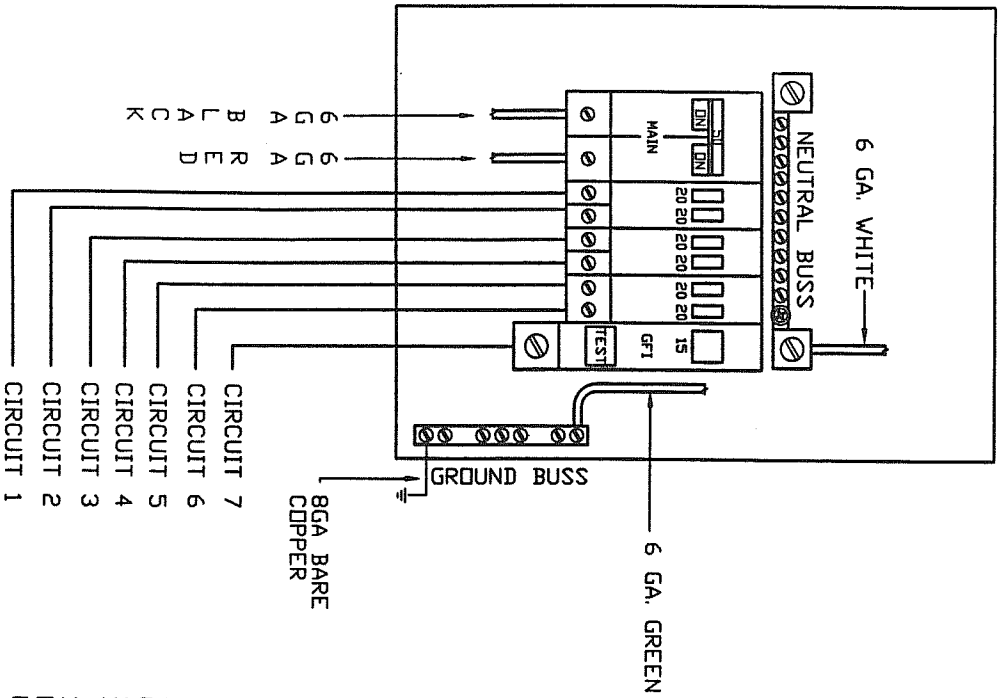
Automatic Switch-Over - 50 amp service



The switch-over box for 50 amp service incorporates the fourth wire found in the power cord. This allows full benefit of the appliances without the use of priority switch. Fifty amp service is a big step in a recreational vehicle but it's still not like home. If you have both air conditioners running, running the dryer, toaster hot, moms curling her hair and you turn on the microwave, chances are you are going to have a circuit breaker kick out. Simply reduce the load a little and reset the breaker. It was just warning that the amperage draw was too high for the power available.

If you are at one of the many campgrounds that still doesn't have 50 amp service what you lose is 20 amps of power. Everything still works individually but you won't be able to work as many appliances at the same time without breakers kicking out.

LET	DATE	E.C.N.	REVISION RECORD	BY
			PRODUCTION RELEASE	TC

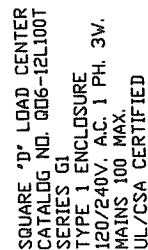


CIRCUIT 1, 20 AMP HACR BREAKER, 12-2 ROMEX W/GROUND, LEG 1, FRONT A/C.
CIRCUIT 2, 20 AMP HACR BREAKER, 12-2 ROMEX W/GROUND, LEG 1, WASHER/DRYER.
CIRCUIT 3, 20 AMP HACR BREAKER, 12-2 ROMEX W/GROUND, LEG 2, REAR A/C.
CIRCUIT 4, 20 AMP HACR BREAKER, 12-2 ROMEX W/GROUND, LEG 2, MICROWAVE.
CIRCUIT 5, 20 AMP BREAKER, 12-2 ROMEX W/GROUND, LEG 1, BEDROOM, CONVERTER, DINETTE AREA AND CREDENZA RECEPTS.
CIRCUIT 6, 20 AMP BREAKER, 12-2 ROMEX W/GROUND, LEG 1, OPT. COFFEE MAKER.
CIRCUIT 7, 15 AMP GFI BREAKER, 12-2 ROMEX W/GROUND, LEG 2, BATH, OUTSIDE, REFER, GALLEY AREA, FRONT TV, ICEMAKER, AND PORTABLE COOLER RECEPTS.

SQUARE "D" LOAD CENTER
CATALOG NO. QDG-12L100T
SERIES G1
TYPE 1 ENCLOSURE
120/240V. A.C. 1 PH. 3W.
MAINS 100 MAX.
UL/CSA CERTIFIED

STANDARD CONVERTER

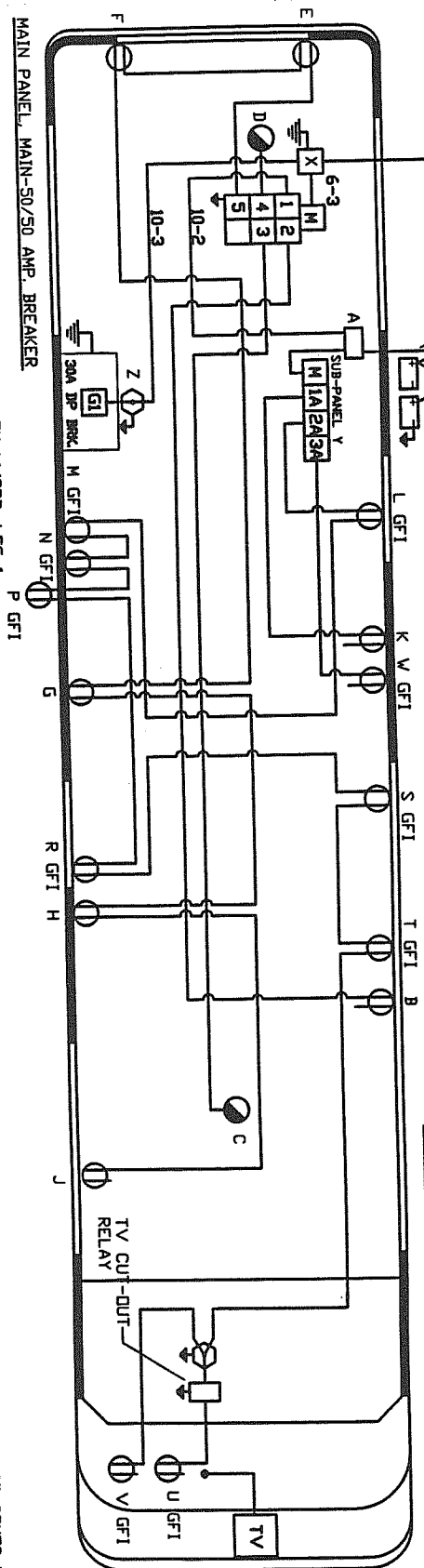
ITEM	PART NUMBER	DESCRIPTION	QTY	UM
TOLERANCES				
±				
NEXT ASSY				
TITLE	110V. BRKR. PANEL-50 AMP			
SCALE	NONE	DATE	DRAWING NUMBER	REV.
		10/11/94	952517	B



INVERTER OPTION

ITEM	PART NUMBER	DESCRIPTION	QTY	UM
TOLERANCES ±		<i>Airstream</i>	DRAWN BY <i>JC</i>	
NEXT ASSY			APPROVED BY	
		PRODUCT LINE	36' CA L YACHT BUS MH	
TITLE 110V. BRKR. PANEL-50 AMP				
SCALE NINE	DATE 10/11/94	DRAWING NUMBER 952516		REV. B

50 A. POWER CORD
23' OF USABLE LENGTH



REVISION RECORD			BY
LET	DATE	E.C.N.	
	6/94	4465-A	TC
		Production Release	

CIRCUIT 1, 30 AMP. HACR BREAKER, 10-2 RDMEX. V/GRD. LEG-L.	30.0 AMPS.
A. INVERTER INPUT	
CIRCUIT 2, 20 AMP. HACR BREAKER, 12-2 RDMEX. V/GRD. LEG-R.	
B. WASHER/DRYER RECEPT	12.8 AMPS.

CIRCUIT 3A, 15 AMP. GFI BREAKER, 12-2 ROMEX W/GND.
W. GALLEY RECEPT & OPT. COFFEE MAKER 8.3 AMPS.

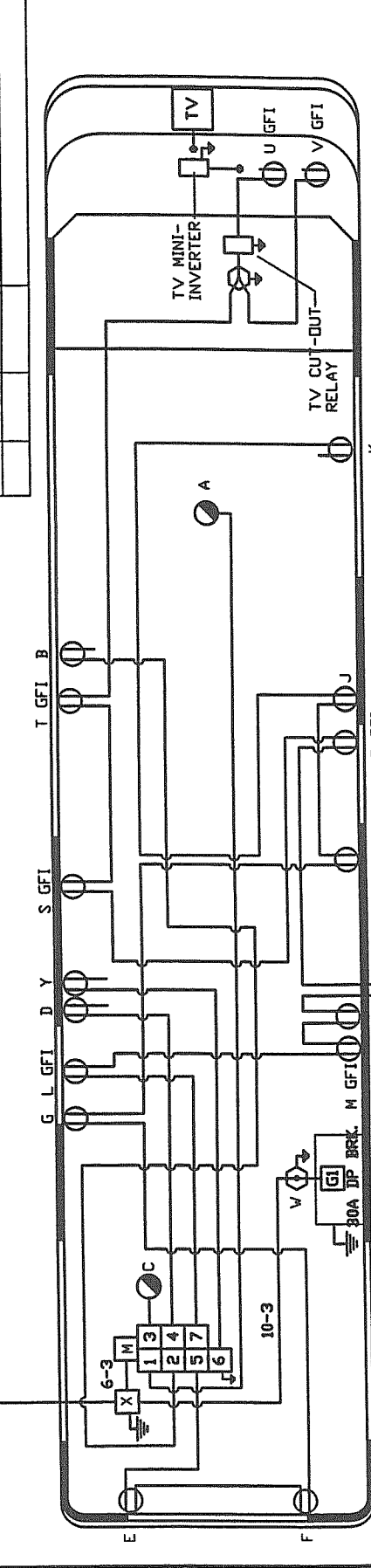
CIRCUIT 3, 20 AMP. HACR BREAKER, 12-2 RMXCW V/GRD, LEG-2	16.0 AMPS.
C. FRONT AIR CONDITIONER	
CIRCUIT 4, 20 AMP. HACR BREAKER, 12-2 RMXCW V/GRD, LEG-1	16.0 AMPS.
D. REAR AIR CONDITIONER	
CIRCUIT 5, 20 AMP. HACR BREAKER, 12-2 RMXCW V/GRD, LEG-1	10 AMPS.
E. ROADSIDE BEDROOM RECEPT	1.0 AMPS.
F. CURBSIDE BEDROOM RECEPT	1.0 AMPS.
G. DINETTE RECEPT	1.0 AMPS.
H. DINETTE AREA RECEPT	1.0 AMPS.
J. CREDENZA RECEPT	1.0 AMPS.
TOTAL	5.0 AMPS.

INVERTER CIRCUIT 1-1
WHEN OPERATING, INVERTER 'A' WILL OVERRIDE SHORELINE AND OPERATE THE THREE CIRCUITS OF SUB-PANEL 'Y'. WHEN SHORELINE IS OPERATING, CIRCUIT 1, LEG-1, OF THE MAIN PANEL BOARD, WILL PROVIDE DN AVERAGE, 10 AMPS, OF CURRENT TO THE BATTERY CHARGER COMPONENT OF THE INVERTER IN ORDER TO RECHARGE THE BATTERIES. THE INVERTER HAS AN INTERNAL 30 A, TRANSFER SWITCH.

GENERATOR CIRCUIT. THE GEN SET COMES EQUIPPED WITH A 30 AMP, DOUBLE POLE BREAKER. WIRES COMING FROM THE BREAKER ARE STRANDED COPPER AND ARE RUN IN FLEXIBLE PLASTIC CONDUIT TO J BOX "Z". THE GENERATOR WIRES ARE JOINED TO A 10-3 RDMEX W/GROUND WIRE IN THE J BOX AS FOLLOWS: ONE 10 GA. STRANDED, "HOT" WIRE FROM THE 30 AMP, DOUBLE POLE BREAKER IS CONNECTED TO THE BLACK WIRE OF THE 10-3 RDMEX. THE OTHER STRANDED, 10 GA. "HOT" WIRE FROM THE 30 AMP, DOUBLE POLE BREAKER IS CONNECTED TO THE RED WIRE. THE STRANDED WHITE, NEUTRAL WIRE FROM THE 10-3 RDMEX. THE STRANDED WIRE, GREEN GROUND WIRE OF THE 10-3 RDMEX, THE STRANDED, GREEN GROUND WIRE FROM THE GENERATOR CONNECTS WITH THE COPPER GROUND WIRE OF THE 10-3 RDMEX. THE 10-3 RDMEX W/GROUND IS RUN TO AUTOMATIC SWITCHOVER RELAY "X" WHICH WILL OVERRIDE SHORELINE WHEN THE GENERATOR IS OPERATING.

SUB-PANEL "Y", 30 AMP, MAIN	
CIRCUIT 1A, 20 AMP, HACR BREAKER, 12-2 RDMEX W/GRD.	12.5 AMPS.
K. MICROWAVE OVEN	
CIRCUIT 2A, 15 AMP, GFI BREAKER, 12-2 RDMEX W/GRD.	
L. BATH RECEIPT	1.0 AMPS.
M. ICE MAKER RECEIPT	2.0 AMPS.
N. REFR	3.5 AMPS.
P. OUTSIDE RECEIPT	1.0 AMPS.
R. OPT. PORTABLE COOLER	0.6 AMPS.
S. GALLEY RECEIPT	1.0 AMPS.
T. GALLEY RECEIPT	1.0 AMPS.
U. FRI. TV W/CUT-OUT RELAY	0.7 AMPS.
V. VCP RECEIPT	0.23AMPS.
W. REFR	3.5 AMPS.

ITEM	PART NUMBER	DESCRIPTION	QTY	UNIT
TOLERANCES ±			DRAWN BY T.C.	
NEXT ASS'Y			APPROVED BY	
PRODUCT LINE		36' CA L. YACHT BUS M. HOME		
TITLE 110V L/OUT W/INVERTER				
SCALE NONE	DATE 10-07-94	DRAWING NUMBER 952515	REV. B	



- MAIN-50 AMP. BREAKER
- CIRCUIT 1. 20 AMP. HACR BREAKER, 12-2 ROMEX W/GRD, LEG-1.
A. FRONT AIR CONDITIONER 16.0 AMPS.
- CIRCUIT 2. 20 AMP. HACR BREAKER, 12-2 ROMEX W/GRD, LEG-1.
B. WASHER/DRYER RECEPT 12.8 AMPS.
- CIRCUIT 3. 20 AMP. HACR BREAKER, 12-2 ROMEX W/GRD, LEG-2.
C. REAR AIR CONDITIONER 16.0 AMPS.
- CIRCUIT 4. 20 AMP. HACR BREAKER, 12-2 ROMEX W/GRD, LEG-2.
D. MICROWAVE OVEN RECEPT 12.0 AMPS.
- CIRCUIT 5. 20 AMP. HACR BREAKER, 12-2 ROMEX W/GRD, LEG-1.
E. ROADSIDE BEDROOM RECEPT 1.0 AMPS.
F. CURBSIDE BEDROOM RECEPT 1.0 AMPS.
G. CONVERTER RECEPT 8.0 AMPS.
H. DINETTE RECEPT 1.0 AMPS.
J. DINETTE AREA RECEPT 1.0 AMPS.
K. CRENDENZA RECEPT 1.0 AMPS.
- TOTAL 130 AMPS.
- CIRCUIT 7. 15 AMP. GFI BREAKER, 12-2 ROMEX W/GRD, LEG-2.
L. BATH RECEPT 1.0 AMPS.
M. ICE-MAKER RECEPT 2.0 AMPS.
N. OUTSIDE RECEPT 1.0 AMPS.
P. PORTABLE COOLER 0.6 AMPS.
R. REFER 3.5 AMPS.
S. GALLEY RECEPT 1.0 AMPS.
T. GALLEY 1.0 AMPS.
U. FRT. TV W/AUTO CUT-OFF RELAY 0.7 AMPS.
V. VCP RECEPT 0.23AMPS.
- TOTAL 11.03 AMPS.

GENERATOR CIRCUITS. THE GEN SET COMES EQUIPPED WITH A 30 AMP. DOUBLE POLE BREAKER. WIRES COMING FROM THE BREAKERS ARE STRANDED COPPER AND ARE RUN IN FLEXIBLE METAL CONDUIT TO J BOX "V". THE GENERATOR WIRES ARE JOINED TO A 10-3 ROMEX W/GROUND WIRE IN THE J BOX AS FOLLOWS: ONE 10 GA. STRANDED, "HOT" WIRE FROM THE 30 AMP. DOUBLE POLE BREAKER IS CONNECTED TO THE BLACK WIRE OF THE 10-3 ROMEX. THE OTHER STRANDED, 10 GA. "HOT" WIRE FROM THE 30 AMP. DOUBLE POLE BREAKER IS CONNECTED TO THE RED WIRE OF THE 10-3 ROMEX. THE STRANDED/WHITE, NEUTRAL WIRE FROM THE GENERATOR CONNECTS WITH THE WHITE WIRE OF THE 10-3 ROMEX. THE STRANDED, GREEN, GROUND WIRE FROM THE GENERATOR CONNECTS WITH THE COPPER GROUND WIRE OF THE 10-3 ROMEX. THE 10-3 ROMEX W/GROUND IS RUN TO AUTOMATIC SWITCHOVER RELAY "X" WHICH WILL OVERRIDE SHORELINE WHEN THE GENERATOR IS OPERATING.

ITEM	PART NUMBER	DESCRIPTION	QTY	UM
TOLERANCES		<i>Airstream</i>	DRAWN BY T.C.	
±			APPROVED BY	
NEXT ASS'Y		PRODUCT LINE	36'CA L. YACHT BUS M. HOME	
TITLE 110V L/OUT W/CONVERTER				
SCALE NONE	DATE 10-06-94	DRAWING NUMBER 952514	REV. B	

CIRCUIT 7, 15 AMP. GFI BREAKER, 12-2 ROMEX W/GRD, LEG-2.	
L. BATH RECEPT	1.0 AMPS.
M. ICE-MAKER RECEPT	2.0 AMPS.
N. OUTSIDE RECEPT	1.0 AMPS
P. PORTABLE COOLER	0.6 AMPS.
R. REFER	3.5 AMPS.
S. GALLEY RECEPT	1.0 AMPS
T. GALLEY	1.0 AMPS.
U. FRT. TV W/AUTO CUT-OFF RELAY	0.7 AMPS.
V. VCP RECEPT	0.23AMPS.
TOTAL 11.03 AMPS.	

CIR. 6, 20 AMP. HACR BREAKER, 12-2 ROMEX W/GRD, LEG-1.	
Y. GALLEY & OPT. COFFEE MAKER	8.3 AMPS.
GFCI RECEPT	

G. CONVERTER RECEPT	8.0 AMPS.
H. DINETTE RECEPT	1.0 AMPS.
J. DINETTE AREA RECEPT	1.0 AMPS
K. CREDENZA RECEPT	1.0 AMPS
TOTAL 13.0 AMPS.	

LOCATING SHORTS AND OPENS

The key in locating shorts and opens is isolation. The first step is to isolate the circuit with the short or open. The second step is to then isolate the section of the circuit with the fault. Once the section is identified, the specific problem can be located. The cause may be a loose or corroded connection, cut wire, worn insulation, defective component, etc. The following procedure is one method for isolating shorts and opens.

SHORTS

1. Isolate the circuit which has the short by noting which circuit breaker has tripped.
2. Disconnect the power inlet cord from the power source.
3. Using the 120V schematic as a reference, disconnect outlet boxes one at a time starting at the box furthest from the distribution panel. After disconnecting each box, check for continuity between the black wire and ground or common (white) wire on the distribution panel side of the circuit. When a continuity light or ohmmeter indicates no continuity, the short is either in the receptacle just removed or the section of Romex wire between this receptacle and the previous receptacle removed.
4. Examples of a short are: A) The black wire of the 120V system contacting the white wire, bare wire or grounded surface. B) An internal short in a 120V appliance.

Any damaged wire must be replaced. The National Electrical Code does not permit splicing 120V wiring outside an outlet box or junction box. Also, the wire must not be exposed to an area such as a sharp metal edge which may damage the wire.

OPENS

1. Check all receptacles and components for voltage on the circuit which has the open.
2. If all receptacles and components of the circuit are without power, begin to look for open in the distribution panel.
3. Inspect for loose or corroded connections and a faulty circuit breaker.
4. Check for power on both ends of circuit breaker. If there is no power on the inlet side of the circuit breaker, the open is between the power cord's male connector and the distribution panel.
5. The open can be isolated by noting the outlets which do not have power. Example: If the bath outlet in the rear bath model has power and the converter has no power, the open is between the bath outlet and converter outlet.
6. Examples of an open are: A) Loose or corroded connections. B) A wire disconnected from a terminal. C) Contacts in the circuit breaker which do not make contact. D) A broken wire.

APPLIANCES

AIR CONDITIONER

Manufacturer: Dometic Sales Corporation
2320 Industrial Parkway
P.O. Box 490
Elkhart, IN 46515
Phone: 219-295-5228

Note: Review the air conditioning literature supplied in your Owner's Packet before proceeding.

The roof air conditioner used on Airstream motorhomes is one of the most popular on the market today. In your Owner's Packet is a set of literature covering all operating and maintenance instructions. If the literature is misplaced, please contact the air conditioner manufacturer or your Airstream dealer for replacement. A detailed service guide may be ordered from the manufacturer.

When in a campground with 50 amp service both air conditioners may be operated at the same time. If the campground only has 30 amp service and you are forced to use an adapter you will find running both air conditioners marginal. They may operate for a time but if both compressors cycle into a "start up" mode at the same time a circuit breaker will probably kick out.

It may be wiser to operate both air conditioners from the generator until the motorhome is cool then switch to one air conditioner and the city power to hold the temperature.

Another appliance drawing a lot of current is the microwave. Operating the microwave and an air conditioner at the same time will put a 30 amp electrical system at the edge of maximum draw. If the air conditioner goes into a "start up" cycle, the additional current will probably cause your main circuit breaker to kick out. If this situation occurs it is best to leave the air conditioner off for the few minutes the microwave is normally operated.

The voltage to the air conditioner is critical. We commonly refer to 110 or 120 volts, but a check with a volt meter may find voltage much lower. Your air conditioner will probably not function if the current drops below 105 volts. Low voltage is usually associated with older or poorly maintained trailer parks, but many people have found their homes, built only twenty or thirty years ago, may not be capable of operating the air conditioner on some receptacles. Parking your motorhome so the power cord can be plugged into a receptacle close to the fuse or circuit breaker box can alleviate the problem. Avoid extension cords and adapters whenever possible. If an extension cord must be used, it should be as short and heavy as possible to provide the most current to the air conditioner.

If high temperatures are expected, you should make an effort to park in a shaded area. Starting the air conditioner early in the morning also helps. It is much easier to hold a comfortable temperature than it is to lower the temperature after the interior of the motorhome is already hot.

FURNACE

Manufacturer: Hydro Flame Corporation
1874 South Pioneer Road
Salt Lake City, UT 84104
Phone: 801-972-4621

The manufacturer of the furnace in your motorhome has been well known in the RV industry for many years. The furnace burns LP gas, and is powered by 12 volt current from the battery or power converter when plugged into city power. Operating instructions are located in your Owners Packet. If they should become misplaced new literature can be ordered direct from the manufacturer or your Airstream dealer. The manufacturer also offers a detailed service guide for your furnace.

WARNING: Carefully read all the manufacturer's instructions prior to operating. **NEVER** store flammable material next to the furnace.

If warranty service is required use only a service location recommended by the furnace manufacturer or your Airstream dealer.

REFRIGERATOR

Manufacturer: Dometic Sales Corporation
2320 Industrial Parkway
P.O. Box 490
Elkhart, Indiana 46514
Phone: 219-295-5228

In an absorption refrigerant system ammonia is liquefied in the finned condenser coil at the top rear of the refrigerator. The liquid ammonia then flows into the evaporator (inside the freezer section) and is exposed to a circulating flow of hydrogen gas, which causes the ammonia to evaporate, creating a cold condition in the freezer.

The tubing in the evaporator section is specifically sloped to provide a continuous movement of liquid ammonia, flowing downward by gravity, through this section. If the refrigerator is operated out-of-level when the vehicle is not moving, liquid ammonia will accumulate in portions of the evaporator tubing. This will slow the circulation of hydrogen and ammonia gas, or in severe cases, completely block it, resulting in a loss of cooling.

Any time the vehicle is parked for several hours with the refrigerator operating the vehicle should be leveled to prevent this loss of cooling. The vehicle needs to be leveled only so it is comfortable to live in (no noticeable sloping of floor or walls).

When the vehicle is moving the leveling is not critical, as the rolling and pitching movement of the vehicle will pass to either side of level, keeping the liquid ammonia from accumulating in the evaporator tubing.

OPERATION

The refrigerator requires 12 volt current to operate even if running on LP or 110 volt modes. The 12 volt is used to power the circuit board that directs the refrigerator functions. When running in a mode such as LP, it means the heat source, by far the largest power requirement, to evaporate the ammonia is being provided by an LP gas burner.

WARNING: Most LP gas appliances used in recreational vehicles are vented to the outside of the vehicle. When parked close to a gasoline pump, it is possible that gasoline fumes could enter this type of appliance and ignite the burner flame, CAUSING A FIRE OR AN EXPLOSION.

RANGE AND OVEN

Manufacturer: Magic Chef, Inc.
28812 Phillips Street
Elkhart, Indiana 46514
Phone: 219-264-9578

The range and oven in your Airstream works on LP gas. Electrical power used is the by 12 volt oven light in some models.

People using gas ranges in their home will find little difference in the operation of the range in the trailer. Other customers, used to electric ranges may be a little apprehensive at first; but, will quickly gain confidence. The basic operation of the gas ranges have been the same for many years, but please be sure to read all the directions furnished by the manufacturer and located in the Owner's Packet. Excellent service and parts manuals are available from the manufacturer.

We find many experienced RVers do not use the pilot light for the top burners, preferring the flint type hand lighters instead. The main reason the pilots aren't used is due to the size of the trailer and the climate in which most trailers are used. The pilots are very small, but, of course, produce heat that may be noticeable in the trailer. With limited counterspace it is normal to set articles on the closed top of the range. If the day is hot and the article is plastic it may become deformed from the low but constant heat of the pilot.

MICROWAVE OVENS

Only federally certified technicians are permitted to service microwave ovens. For this reason the only service instructions contained in this manual are for removal of the complete oven. If you have a microwave problem please contact the appropriate manufacturer.

Magic Chef
28812 Phillips Street
Elkhart, Indiana 46514
219-264-9578

Sharp Electronics Corporation
10 Sharp Plaza
Paramus, New Jersey 07652
201-5112-0055

Litton
2530 North 2nd Street
Minneapolis, Minnesota 55411
605-336-5377

Quasar
Division of Matsushia Elec. Corp
1325 Pratt Blvd.
Elkgrove Village, IL 60007
201-348-9090

Airstream has used two different methods of holding the ovens in place. The most common is a set screw configuration where two bolts apply downward pressure on top of the range. The bolts can be found in the cabinet directly above the oven, and out toward the front. Back them out a few turns and the front of the oven can be lifted up and out over the lower ledge.

The second method was to slide a piece of 3/4" pine board under the microwave in front of the rear supports. Once in place screws were run up through the bottom shelf into the 3/4" pine.

You will note neither method makes any holes in the microwave cabinet. The microwave is simply captured in its cabinet. Usually you will be able to move the microwave around in the cabinet, but it won't come out.

WATER HEATER

Manufacturer: Atwood Mobile Products
4750 Hiawatha Drive
P.O. Box 1205
Rockford, Illinois 61105
Phone: 815-877-7461

Note: Review the water heater literature supplied in your Owner's Packet before proceeding.

CAUTION: Hydrogen gas can be produced in a hot water system served by this heater that has not been used for a long period of time (generally two weeks or more). Hydrogen gas is extremely flammable. To reduce the risk of injury under these conditions, it is recommended that the hot water faucet be opened for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system. If hydrogen is present there will probably be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the faucet at the time it is open.

Electronic Ignition

The switch used to light your electronic ignition water heater is located in the bathroom above the lavatory top. When the switch is turned on, the red light will come on indicating the "try" mode is in effect. Normally the burner will ignite in just a few seconds, and the light will go out. If your LP system hasn't been used for some time, the system may go into safety lock-out (about 20 seconds) before the air is all expelled from the lines. Turning the switch off for 30 seconds, then back on, reinstates the "try" mode. (See Note below.)

Principle of Operation

When the switch is turned on, power is supplied to the thermostat (located inside the junction box at the back of the water heater). When the thermostat senses the water in the tank requires heat (below 120°F), its contacts close and complete the circuit to the circuit board. This will energize the coils in the dual solenoid gas valve, allowing gas to flow out of the main burner orifice, mix with air at the ventura (air adjusting slots), then flow out the end of the main burner.

Simultaneously the coil on the circuit board provides a high voltage current to reach the spark probe at the main burner. This ignites the gas. When the flame is sensed by the probe, current is conducted to the relay and the valve remains energized. Sparking ceases when the electrode to ground current path is altered by the presence of flame. The water heating process begins. When the water in the tank drops below 120°F, the process will automatically repeat itself.

Note: A complaint sometimes received at Airstream is the fact the water heater will not light for a while when the motorhome is first parked. The explanation is easy. The water is already hot! The motorhome water heater has a heat exchanger plumbed into the engine radiator system. As you are driving the water is being heated without your having to do a thing.

SAFETY

If your water system is full and cold and the water heater is ignited the system can see pressures as high as 120 psi before the relief valve starts to open. Since the water system normally operates in the 40 psi range the water expanding does pose unusual stress on the system. This normally does not cause any problems, but the stress is easily alleviated. As the water is heating just open any faucet and run as little as a cup of water. Just removing this small amount of water reduces the pressure build up significantly.

For fun, watch the sequence of events your family goes through when you park the motorhome and ignite the water heater. More than likely someone will run water and relieve the pressure without even realizing it.

HIGH VOLUME ROOF VENT (OPTIONAL)

Manufacturer: FAN-TASTIC VENT CORP.
4349 S. Dort Hwy.
Burton, MI 48529
1-313-742-0330
1-800-521-0298

The optional high-volume roof vent system is designed to quickly exhaust stale, hot air and draw in fresh air. It's great to use when the outside temperature really doesn't call for air conditioning, but heat has built up in your coach.

OPERATING INSTRUCTIONS:

1. Rotate 3 speed switch to desired position, 0-off, 1, 2, and 3. The 3 speed switch must be set at 1, 2 or 3 to activate appliance.
2. Rotate thermostat knob toward 40° (cooler) until dome begins operating.
3. When equipped with reverse switch, there is a neutral (off) position. Fan motor will not operate when in/out switch is in its center "off" position. The dome will, however, operate up and down automatically as long as the 3 speed switch remains on.
4. To determine desired temperature setting;
 - a. Use the wall thermometer on furnace thermostat, or any interior temperature indicator.
 - b. Operate fan until interior comfort level is achieved. Rotate thermostat knob toward 110° symbol on label until dome begins closing. You now have the location for normal setting.

The thermostat sensor is calibrated approximately 4°. The minimizes rapid recycling of the unit, once desired temperature level is achieved.

5. The rain sensor built into your fan will prevent excessive rain from entering coach through open dome. Maintain a setting above (to the right of) "rain override" zone and dome will close when sensor becomes wet.

WARNING: Do not leave coach unattended with thermostat knob set in the "rain override" zone.

6. A rain sensor override is built into this system so you can operate your fan during light to moderate rains. When sensor is wet, rotate fan thermostat knob to coolest position to override sensor. Dome will open and fan motor will start. When sensor has completely dried, rotate thermostat knob back to desired setting for automatic operation.
7. To close dome in extremely hot conditions, rotate thermostat knob right, past 110° symbol to off. Dome will come down.
8. Always allow dome to completely cycle up and down. If dome "hangs up" in partially open/close position, rotate thermostat knob to extreme right and then left position allowing complete cycles down and up. Now reset to original comfort level.
9. When vehicle is in storage, rotate thermostat knob to right (off), after dome closes, turn 3 speed switch to "O" (off).

CLEANING INSTRUCTIONS:

- 1) Turn fan motor OFF.
- 2) Remove 8 painted flathead phillips screws around perimeter of screen insert only.
- 3) Clean screen with soap & water solution and reinstall.

SPECIFICATIONS

Airstream constantly strives to improve its product. All specifications are subject to change without notice. Note: all weights and measurements were made on prototype vehicles. Your production motorhome may vary slightly.

DIMENSIONS

Exterior Height with Air Conditioner	11' 10"
Interior Head Room	80"
Interior Width	95"
Exterior Length	35' 10 1/2"

CAPACITIES

LPG Tank	105 Lbs.
Fresh Water Tank	100 Gal.
Grey Water Holding Tank	70 Gal.
Black Water Holding Tank	40 Gal.
Fuel Tank	100 Gal.

CHASSIS COMPONENTS

Wheel Base	228"
Rear End Ratio	5.13:1
Gross Vehicle Weight Rating (Maximum Carrying Capacity)	29,500
Tire Pressure, All	95 psi
Tire Size	225/80 x 22.5

