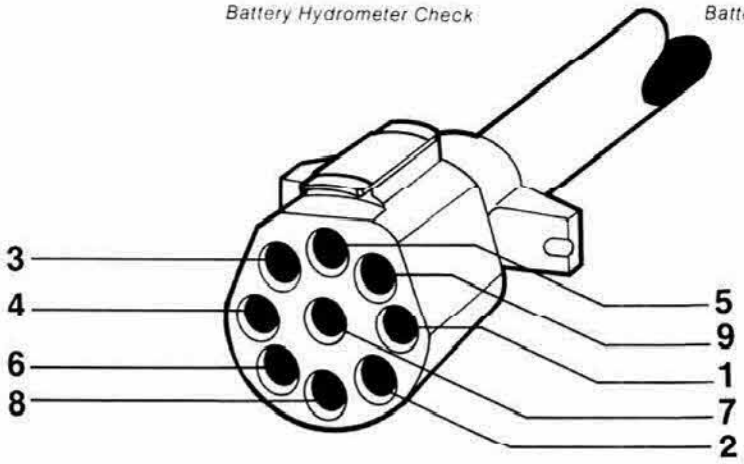
110 Volt Power Cable

Battery Hydrometer Check

Battery In-Line Fuse

9-Way Connector



Terminal Number	Wire Color	Connects To
1	White	Ground
2	Blue	Brakes (hot)
3	Green	Tail, clearance, license plate lights
4	Black	Battery charge line from tow car
5	Red	Left turn signal & brake light
6	Brown	Right turn signal & brake light
7	Yellow	Trailer back-up lights
8	Gray	(Not used)
9	Orange	Refrigerator control

To prevent damage to the battery, never allow it to become fully discharged. **Specific gravity should not be permitted to drop below 1.150.** The surest way to avoid battery drain is to use an external 110-volt electrical source whenever possible. It conserves battery power and also provides automatic charging to keep them in top condition.

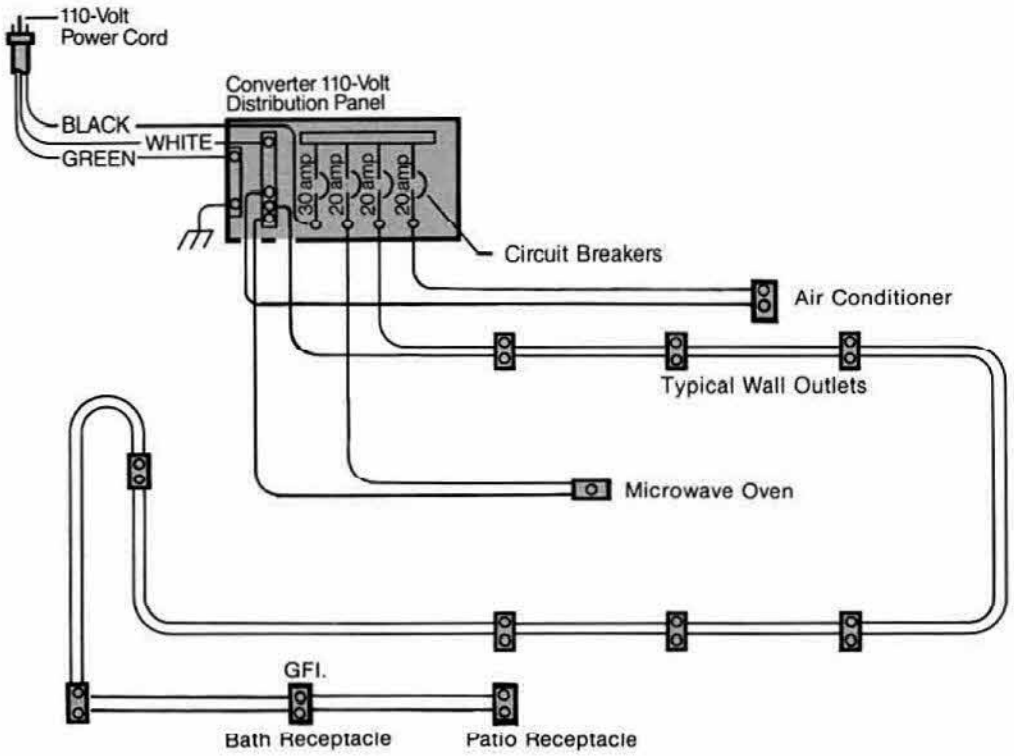
Important: Always make sure the 110-volt power cord is securely plugged into the outlet. A loose connection could break the circuit and cause battery to drain.

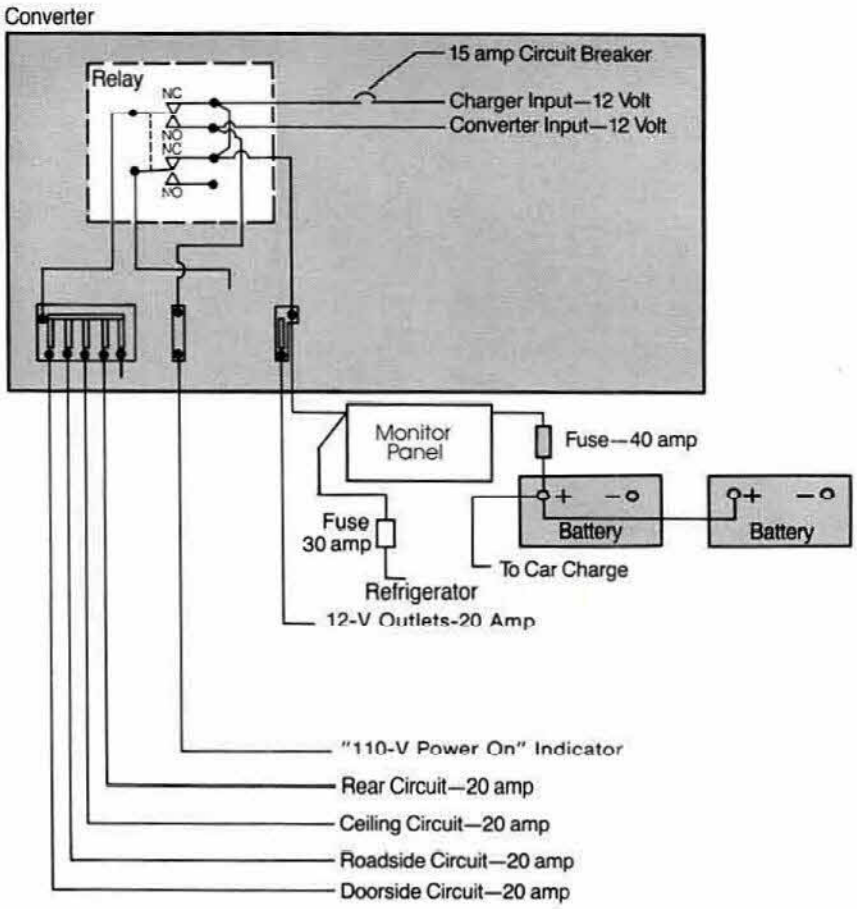
Trouble-Shooting

Take the time to study your Avion's electrical system, and you will discover that many minor difficulties can be corrected by referring to the following trouble-shooting guide. Major electrical repairs should be handled by an Avion Service Center.

Symptom	Cause	Remedy
No 12-volt power to lights and appliances when operating on 12-volt only.	Input line and/or trailer batteries disconnected.	Reconnect input line and trailer batteries.
	Trailer batteries discharged.	Charge batteries using 110-volt power or tow car alternator.
	Trailer batteries on wrong polarity.	Reverse the polarity. Should be: (+) on hot, (−) on ground.
	Blown fuse.	Replace blown fuse.
Blown fuses or tripped circuit breaker.	Overloaded circuit (over 20 amps).	Turn off lights, appliances and other switches to reduce load. Replace blown fuse at Electrical Control Center or reset breaker.
	Electrical short.	Check Electrical Control Center for blown fuse and replace it or reset breaker. If fuse blows again or breaker trips again, see dealer to have short corrected.
Dim lights and/or sluggish fan motors.	Not operating on 60-cycle power.	Locate 60-cycle power source and hook up to it.
	Trailer batteries discharged.	Charge batteries using 110-volt power or tow car alternator.
	Trailer batteries low on water.	Check all cells and refill to correct level with distilled or filtered water.
	Trailer battery terminals not connected properly or are corroded.	Make proper connections or clean terminals and connectors and coat with light layer of grease.
Electrical Control Center will not charge batteries.	Outside 110-volt power not hooked up.	Connect power cord.
	Trailer batteries not connected or polarity reversed.	Connect batteries or reverse the polarity. Should be: (+) on hot, (−) on ground.
	Trailer battery defective.	Replace battery.
	40-amp battery fuse blown.	Replace fuse.

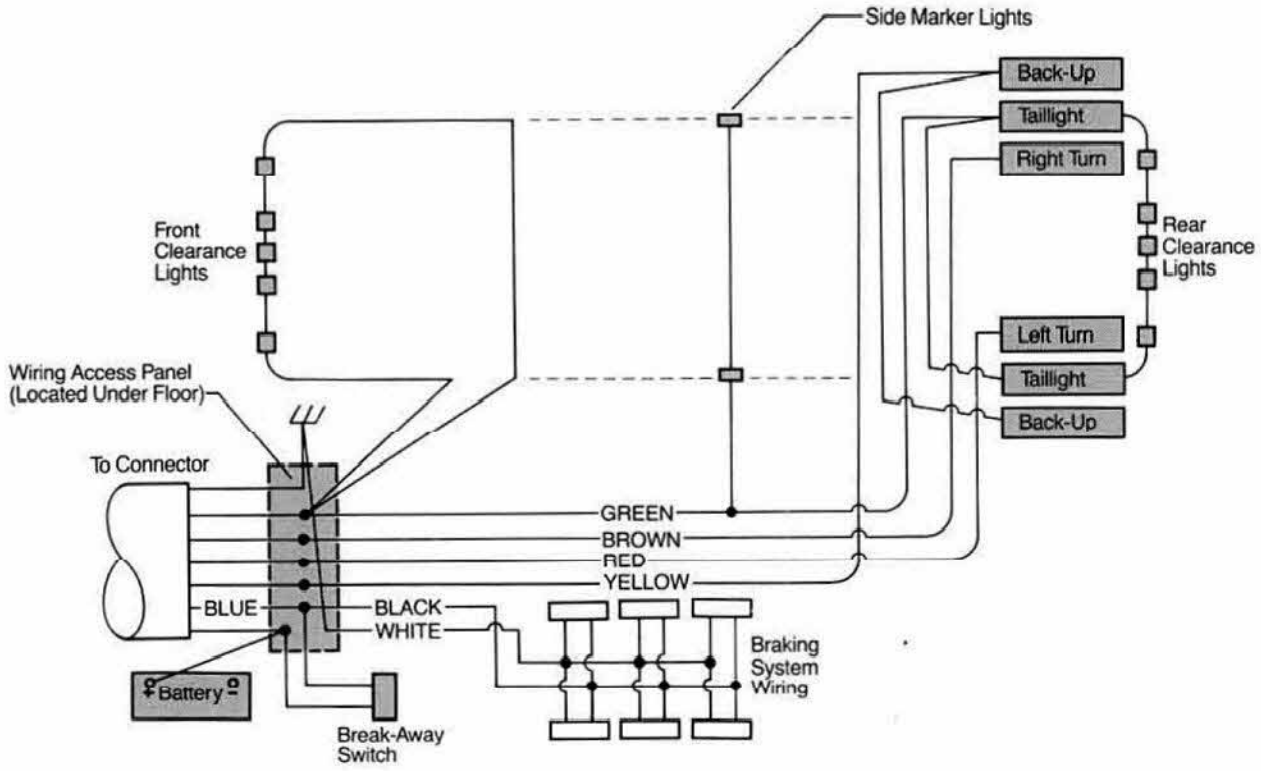
Electrical System Diagrams

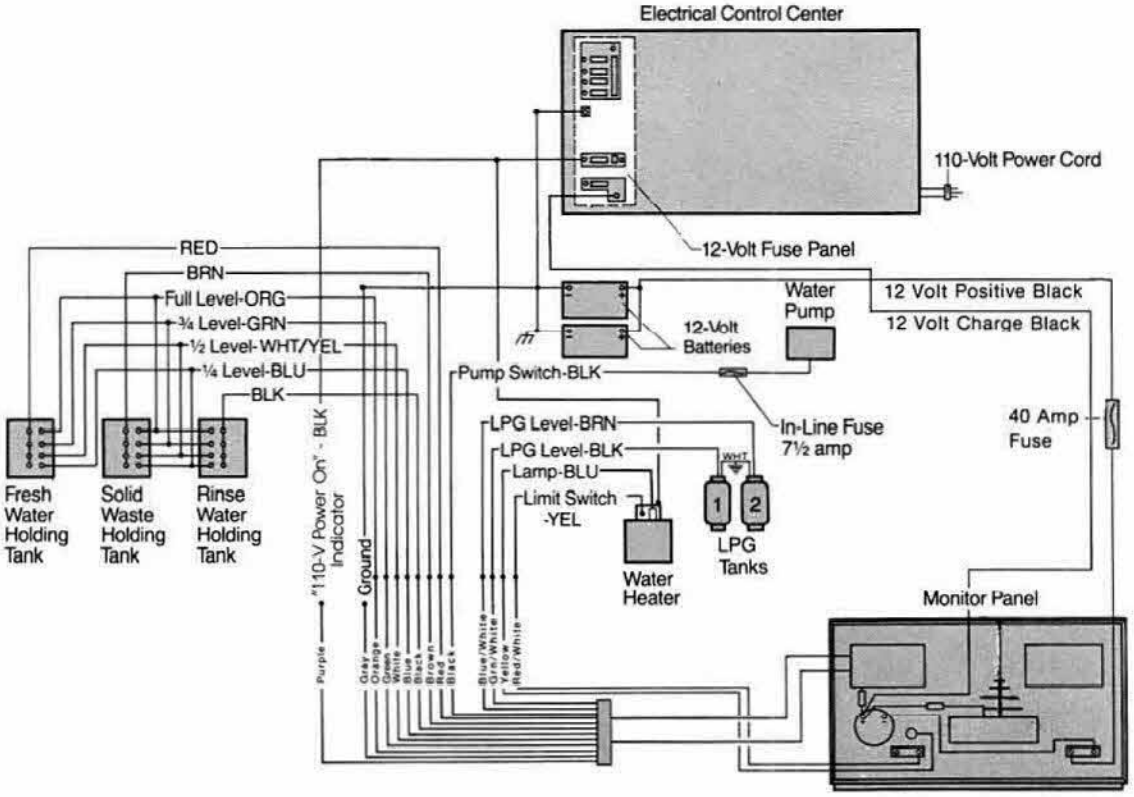




12 Volt Interior

12 Volt Exterior

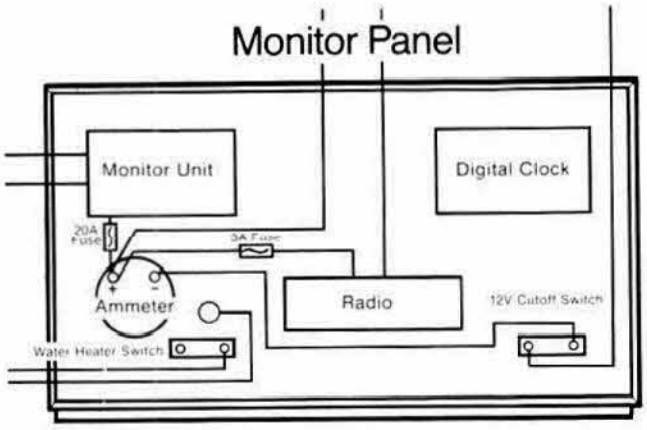




Monitor Panel

Monitor Panel Terminal Strip Color Code

12VDC Positive	①	12VDC Positive
110V Power On Indicator	②	PURPLE
Water Tank Common RED	③	RED
Solid Holding Tank Common BROWN	④	BROWN
Full ORANGE	⑤	ORANGE
GREEN	⑥	GREEN
WHITE	⑦	WHITE
BLUE	⑧	BLUE
Gray Holding Tank Common BLACK	⑨	BLACK
Water Pump BLACK	⑩	BLACK
LPG 1 BLACK	⑪	GREEN/WHITE
LPG 2 BROWN	⑫	BLUE/WHITE
Water Heater Lamp BLUE	⑬	RED/WHITE
	⑭	Ground



Appliances

Refrigerator

The Dometic LP gas/electric refrigerator has been engineered for long life and trouble-free service. It has many of the same qualities you expect to find in a model for your home, plus additional features especially convenient for trailering.

Leveling

To get the most out of your refrigerator, it is essential for it to operate on a level plane when the coach is stationary. Otherwise, the liquid ammonia used in the refrigeration system can collect in pockets around the evaporator coil and impede proper coolant circulation. This can cause the cooling process to stop completely in extreme cases, and may damage the cooling unit.

Check for correct positioning of the refrigerator by placing a small bubble level on the freezer shelf and observing it with the aid of a hand mirror, if necessary. If the refrigerator is not level, realign the trailer to horizontal. See section in **Lengthy Stops,** page 21, for more details.

Power Sources

The refrigerator can operate on LPG, 110-volt AC, or 12-volt DC power. Operating controls are located inside the refrigerator at the bottom of the food storage compartment.

Operation *(Figure 1)*

Before starting refrigerator, open all gas valves, including the refrigerator inlet valve.

1. Turn the control knob (C) to "ON". The pilot lamp (A) should be green.
2. Turn the thermostat control (B) to "4". Adjust as necessary for desired temperature.
3. Turn the control knob to "OFF" to shut down refrigerator.

The refrigerator is equipped with an automatic energy selector system which selects the most suitable available energy source. Energy selection is made with highest priority to 110-volt AC, second priority to 12-volt DC, with LPG operation having lowest priority. Manual changeover is not necessary. If the system does not succeed in lighting the gas, the pilot lamp wil change to a flashing red light (see RED FLASHING LIGHT, below). If battery voltage drops, the control system will start continuous gas operation. The thermostat will not be in operation. When the voltage increases, normal operation will resume.

The refrigerator is programmed to delay gas startup for about 30 minutes after 12-volt operation. This helps prevent any hazardous situations at re-fueling stops. The delay will occur after only one minute of 12-volt operation. If you want a quick gas start up after 12-volt operation, switch the refrigerator "OFF" for one minute, then switch back to "ON".

Red Flashing Light

If the pilot lamp flashes red, the refrigerator control system did not succeed in lighting the gas flame. In this case:

1. Turn the control knob "OFF" and back "ON". The lamp should be green. NOTE: The first start or a start after a recent LP gas refill may take three or four start attempts lasting up to three or four minutes each. Gas operation is possible only after an "ON"-"OFF"-"ON" sequence.
2. Check the gas supply, and be sure all gas valves are open.

The red flashing light indicates faulty gas operation. The refrigerator may still be operated on either 110-volt AC or 12-volt DC. If electric operation is not possible, and the red light continues to flash, set the control knob to "OFF", and contact a Dometic service center.

Using the Refrigerator

1. **Food storage compartment.** This area of the refrigerator is completely closed and unventilated, in order to maintain the low temperature required for proper food storage. Consequently, foods having a strong odor, or foods liable to absorb odors, should be placed in sealed containers. Vegetables, salads and the like should be covered to retain their crispness. The **coldest** positions inside the refrigerator are underneath the cooling evaporator and at the bottom of the unit and the **least cold** position are on the upper door shelves.

2. **Ice Making.** Fill ice cube trays to within ¼" of the top. Release the ice cubes by twisting the trays.

   Ice making can be accelerated by setting the thermostat to "max." Do this a few hours before the ice will be needed, but always turn back the thermostat to its former setting once the ice is formed, or the foodstuffs in the storage compartment may freeze solid.

3. **Cleaning.** Remove all food to avoid possible contamination from cleaning agents. The interior lining of the refrigerator can be washed with a weak, lukewarm soda solution. All other parts must be cleaned with warm water and a mild soap or detergent **only. Never use strong chemicals or scouring powders; they can damage the protective surfaces.** Wipe all surfaces dry with a clean, absorbent cloth.

4. **Defrosting.** The Dometic refrigerator in your Avion is equipped with automatic defrosting in the main food compartment. It has been engineered to eliminate thawing or warming of foods stored either in the freezer or main compartment. When the freezer compartment becomes covered with frost, shut down the refrigerator until the frost has melted. Dry the compartment, wash ice cube trays and refill with fresh water before restarting the unit.

5. **Shut Down.** to turn off the refrigerator temporarily, set the thermostat to "zero" and rotate the control knob to the "off" position. If the unit is to be out of operation between trips, empty and clean the food compartment and freezer as previously described. Ice cube trays should be emptied, wiped dry and stored in one of the galley storage cabinets. Leave the refrigerator doors slightly ajar, or place containers of activated charcoal inside to prevent the formation of mildew and odors.

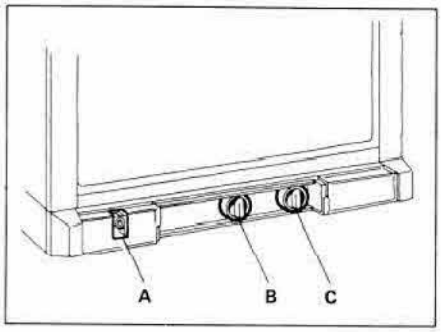


Figure 1

Periodic Maintenance

Disconnect 110-volt AC and 12-volt DC leads before working on the refrigerator.

Burner *(Figure 2)*

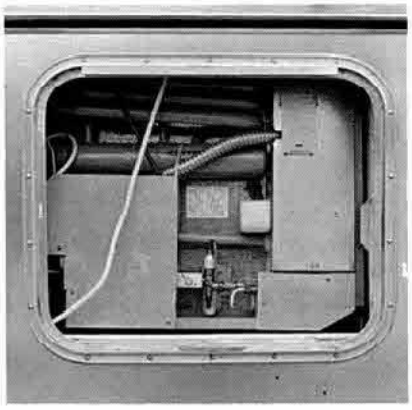
Once or twice a year, depending on use, the burner assembly must be cleaned and adjusted.

1. Loosen screw and remove burner housing cover plate.
2. Disconnect cable from the electrode.
3. Loosen burner mounting screw and remove burner.
4. Clean burner tube with a brush. Blow with compressed air.
5. Unscrew jet and clean with alcohol and compressed air only. Do not clean jet with a needle or wire.
6. Reassemble burner assembly.
7. Be sure the slots of the burner are centrally located under the boiler tube.
8. Set the gap between the electrode and burner at 3/16" to 1/8".

Thermocouple *(Figure 2, 3)*

Replace the thermocouple as follows:

1. Unscrew plug (23) and holder (22). Pull thermocouple straight out.
2. Remove holder (24) by pulling it sideways from burner housing.
3. Bend new thermocouple to the same shape as the old one.



Refrigerator Outside Access Compartment

4. Reassemble in reverse order. Install the thermocouple so that the feeler reaches in over two slots of the burner (Figure 4).

5. Mount holder. The plug must be tightened properly to ensure a good contact between the thermocouple and the magnetic coil within the housing.

Cartridge Heater *(Figure 5)*

During electric operation, an electric cartridge heater supplies the necessary heat. Before replacing the heater, be sure all 100-volt AC and 12-volt DC power is disconnected from the refrigerator.

1. Push the metal flex tubing upwards.

2. Disconnect the heater connector.

3. With pliers, unfold the lug holding the lid of the boiler casing, and open the lid.

4. Remove insulation so that heater is accessible.

5. Turn and lift the heater out of its pocket.

6. Fit the new heater into the pocket.

7. Connect the leads and pull the metal flex tube around the leads.

8. Replace the insulation and close the lid of the boiler casing.

At the time you are servicing the burner assembly, you can also check the flue baffle to see that it is clean and reasonably free of soot. If cleaning is necessary, use a good flue brush. Cover burner when cleaning flue to prevent soot from falling down inside burner.

The refrigerator has been designed to run with a minimum of service, but in the event a problem should arise while you are traveling, you will want to know how to locate and correct it, in order to keep the unit functioning until it can be checked by a qualified, factory-trained technician. Remedies for the most common minor malfuctions are presented here.

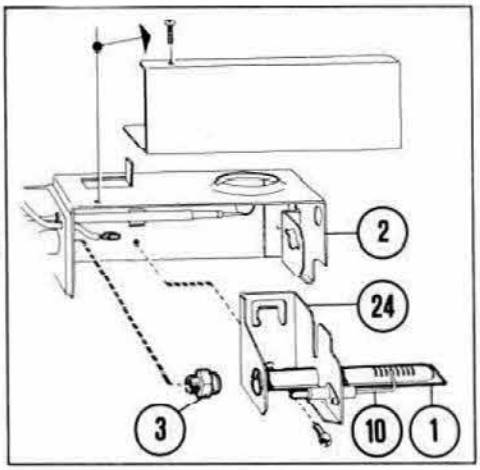


Figure 2

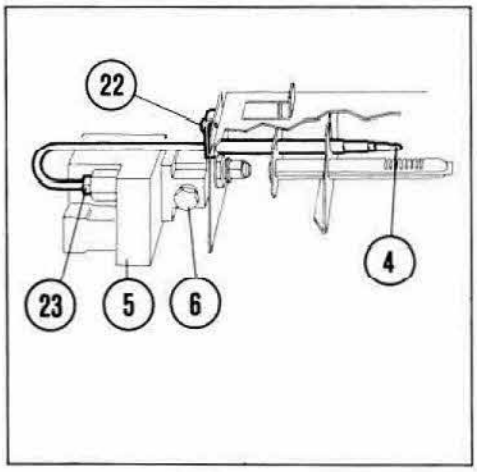


Figure 3

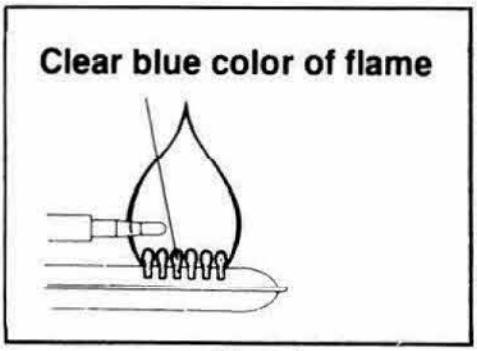


Figure 4

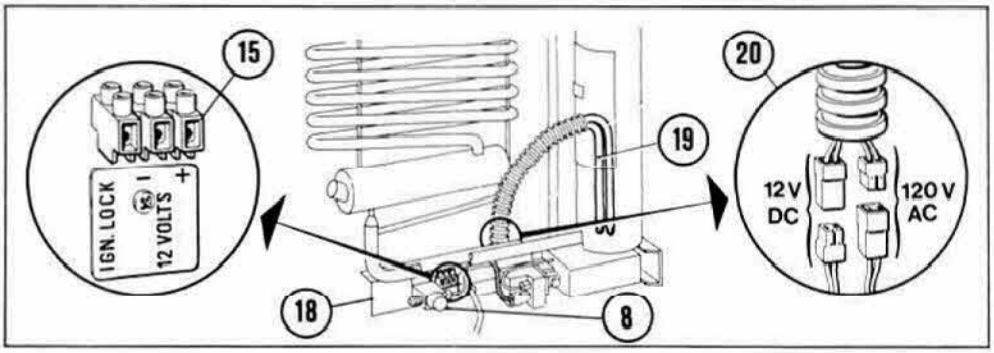


Figure 5

Trouble-Shooting

Symptom	Cause	Remedy
Refrigerator does not freeze satisfactorily.	Jet orifice clogged.	Disengage gas pipe from burner. Unscrew jet, blow clear, and wash in alcohol. Do not use wire or pin to clean orifice.
	Refrigerator not level.	Level the trailer.
	Air circulation around cooling unit restricted.	See that refrigerator is properly ventilated.
	Evaporator heavily coated with frost.	Defrost refrigerator.
	Flue baffle not inserted into central tube of cooling unit.	Insert flue baffle.
	Thermostat incorrectly used.	In hot weather, setting should be one or two numbers colder than usual.
	Gauze in burner head clogged.	Clean burner head.
	Burner damaged.	Replace burner.
	Burner positioned incorrectly.	Reposition burner.
	Wrong gas pressure at burner.	Check pressure at burner and at LPG bottles. Burner pressure must not fall below 11" W.G. when thermostat is on "max."
Odor from fumes.	Flame touches side of burner.	Burner positioned incorrectly. Reposition it.
	Burner damaged.	Replace burner.
	Flame touches flue baffle.	1. Burner damaged; replace it. 2. Flue baffle too low; reposition it.
	Flue tube is dirty.	Cover burner and jet, remove flue top and baffle, clean flue with special flue brush, clean baffle.

Range and Oven

Your Avion is equipped with a Magic Chef® LP gas range and oven, Model BT22JS-4TVX, for cooking ease and dependability. The unit has been especially designed for recreational vehicles, and features such homelike conveniences as four large top burners, an oven big enough to cook a 17-pound roast, and automatic-lighting burners. This fine appliance will give years of excellent service when operated according to instructions.

Lighting the Pilots

If the unit has not been operated for an extended period it may take longer than usual for pilot ignition, due to air in the gas lines.

1. Make sure all top burner control knobs are in the OFF position, to avoid venting any potentially dangerous gas into the trailer.
2. Set oven control knob on PILOTS OFF position.
3. Turn on main gas supply to the range.
4. Depress oven control knob and rotate it to the OFF position.
5. Lift the hinged main top panel and light the top burner pilot with a match.
6. Open oven door and light oven pilot in the same manner.
7. **Always observe caution. Take steps to insure that gas will not flow into the coach whenever you are making any adjustments or performing maintenance functions. Be certain all valves are in the OFF position, and do not use the pilot adjustment valve as a pilot shut off.**

Pilot Light Adjustments

Range top burners should light within four seconds. If ignition is difficult, intermittent or uncertain, check the height of the pilot flame and make sure the lighter ports and flash tubes are unobstructed. The tip of the pilot flame should be about 1/8-inch above the lighter cup cone (see illustration). The **range top** pilot adjustment screw can be reached by removing the oven control knob.

The **oven** flame has been pre-set at the factory and is not adjustable.

Using the Range Top Burners

Your Magic Chef is equipped and adjusted for use with LP gas only. The burners have pre-set air openings, and adjustments are unnecessary to assure a proper, blue flame.

To light the burner, simply push in the control knob and turn it **counterclockwise** as far as it will go to insure ignition, then turn it back in the other direction (clockwise) until the desired flame height is reached.

If the flame burns with an impure orange color, or the blue is tinged with green, it is probably due to metal filings left in the burner during manufacture or excess dust in the air. Clean the burners if condition persists for more than a few minutes. For more information about flame adjustment, refer to the Magic Chef manual provided with each unit.

Caution: Never close the top cover when the range is in operation; this could extinguish the flame and allow gas to escape into the trailer.

Using the Oven

The oven is controlled by a low-temperature thermostat. It has no bypass setting and will automatically cycle on and off at all temperature settings except "broil" ("BR") to maintain constant, even oven heat.

To light the oven after activating the pilot depress the oven control knob and turn **counterclockwise** to the desired temperature setting. The oven is equipped with a safety ignition system that requires approximately 45 seconds delay before the main burner ignites. This is normal, and there is no gas escaping during the delay.

A properly-functioning oven burner will have a blue flame that is about three inches long and sitting on the burner. If the flame is a different length, or if it is dancing on or above the burner, the air shutter is out of adjustment. Correct the situation by fully opening the shutter to produce a blowing condition, then close it slowly until the blowing stops. At this point, the air shutter is correctly set.

Always turn the oven control knob to OFF when the oven is not in use. The pilots will remain lit and ready for use when in this position. When you travel, turn the oven control knob to PILOTS OFF and follow the complete procedure for lighting the pilots during your next stop. **Never travel with the pilot lights functioning; they might be extinguished and cause gas to enter the coach.**

Range and Oven Shut Down

To shut down the unit for traveling, cleaning, or extended periods of non-operating, move the oven control knob to the PILOTS OFF setting, and turn off the main gas supply.

Cleaning

You can keep your range and oven looking bright and new by wiping all surfaces with each use. Wait until it cools down, then use a warm detergent solution and a soft cloth or sponge. The range top is hinged for easy raising or removal when cleaning around the burners. The burner heads themselves should also be cleaned, but always make certain that all air and gas ports are unclogged when you are finished. Use a toothpick or similar device to clear the ports.

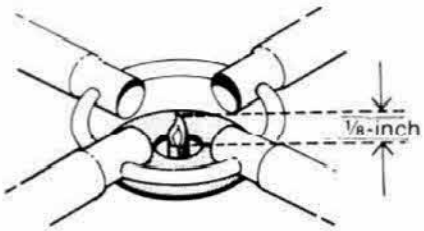
The variety of materials and finishes on your range require special care. Follow these tips for bests results.

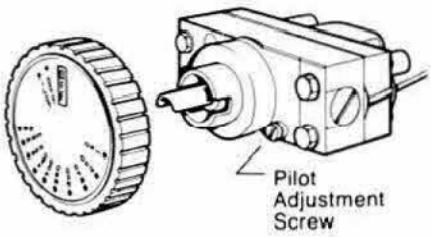
1. **Porcelain Enamel.** Spilled foods with high acid content should be wiped up immediately to avoid damaging the finish. **Do not use harsh abrasive cleaners or steel wool.**

Range and Oven

Range Exhaust Hood and Light

Range Top Pilot Adjustment





2. **Chrome.** Wipe with damp cloth then dry. Use chrome polish to remove stubborn stains.
3. **Glass.** Wait until surface cools, then wipe with detergent and hot water. Rinse and polish with soft cloth.
4. **Aluminum.** Use a steel wool soap pad to remove stains and restore luster. **Do not use caustic solutions.**
5. **Broiler Pan and Insert.** Sprinkle with liquid or powdered detergent and cover with damp cloth or wet paper towels as soon as possible after using, to help loosen drippings.
6. **Oven Interior.** Wipe clean with damp cloth. If oven bottom is removed for cleaning, lock it in place when reinstalling.

Caution: If you use a commercial oven cleaner, protect the aluminum gas tubing, thermostat sensing bulb, and electrical components by covering with masking tape or similar material. Rinse oven thoroughly with a solution of the one tablespoon vinegar to one cup water.

Tips for Safe Operation

1. Never light matches inside the coach or in the vicinity if gas odor is present.
2. Always open an air vent or window slightly while using the range. Gas flames consume oxygen, which must be replenished for proper combustion.
3. Do not tamper with burner orifices.
4. Do not leave top burners lit without cooking utensils on them. Overheating may damage porcelain finish of the grates.
5. Do not leave the top cover of your range in a down position if the top burners are on.
6. Never use your gas range as a space heater.
7. Clean up oven spillovers immediately. Any accumulation may cause smoking or ignition.
8. Use aluminum foil properly, otherwise it could adversely affect oven performance. If foil is used to catch drippings, allow at least two inches around it on all four sides of the oven bottom. Never cover air holes in the oven bottom.
9. Do not store utensils in the broiler area. They could damage or dislocate the oven burner and pilot.
10. Never leave burners or pilot lights on while traveling or while refueling at a gasoline service station.
11. 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

IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING. COOKING APPLIANCES NEED FRESH AIR FOR SAFE OPERATION. BEFORE OPERATION:

1. OPEN OVERHEAD VENT OR TURN ON EXHAUST FAN, AND
2. OPEN WINDOW

The following guide covers some or the most common problems you might encounter, and how to handle them without the need for outside service. For additional information, refer to your Magic Chef manual.

Range Exhaust Vent

The range exhaust vent draws in cooking fumes, odors, heat and smoke from the galley and discharges them outside the trailer. To operate the exhaust fan, push the on-off button on the vent.

The exhaust filter should be cleaned at least twice a year. To remove it, unscrew retainer nuts from the on-off buttons that run vent fan and light, and let the cover plate drop down. Wash the filter in a detergent solution, then rinse thoroughly and dry before reinstalling.

Access to the range vent bulb compartment is also gained by removing the push button retainer nuts. See page 108 for replacement lamp size.

Trouble-Shooting

Symptom	Cause	Remedy
1. Slow-heating oven. 2. Poor baking. 3. Poor ignition of burners. 4. Pilots will not stay lit. 5. Popping sound from top burners. 6. Carbon on pilot shield. 7. Burner flame too low or high.	Defective gas pressure regulator.	Have gas pressure regulator tested by dealer and replace if necessary.
Oven pilots will not light or stay lit.	Incorrect pilot adjustment for type thermostat being used.	Adjust pilots.
	Pilot tubing is kinked, clogged or leaking at fittings.	Check pilot tubing and make necessary corrections.
	Defective gas pressure regulator.	Have gas pressure regulator tested by dealer and replace if necessary.
	Thermostat dial set in "pilot off" position.	Move thermostat to "off" position and light pilot.
Top burner pilot will not light or stay lit.	Pilot flame too high or low.	Adjust pilot flame.
	Pilot cup assembly not level.	Turn pilot filter clockwise or counter-clockwise with wrench until cup assembly is level.
	Defective gas pressure regulator.	Have gas pressure regulator tested by dealer and replace if necessary.
Top burners will not light.	Burners and/or flash tube not positioned correctly.	Reposition burners and/or flash tube.
	Pilot light out.	Relight pilot.
	Air shutter not adjusted properly.	Adjust air shutter.
	Burner parts clogged.	Clean burner parts with toothpick.
	Loose igniter port.	Tighten igniter port by pressing in or replace.
1. Oven burner will not light. 2. Excessive heat burns food. 3. Pilot outage.	Constant pilot light is out.	Relight pilot.
	Pilot assembly out of position.	Reposition pilot assembly.
Gas odor.	Possible gas leak.	Check all connections with soapy water (do not use chlorine or ammonia), and make necessary repairs. **Shut down LPG system until symptom has been corrected.**
Cakes rise higher on one side.	Pans set too close to side of oven.	Position pans at least two inches from sides of oven.
	Range not level.	Level the range.
Oven door not closing properly at left or right corner.	Normal expansion and contraction of metal parts.	Adjust door as follows: (1) Open oven door and slightly loosen four sheet metal screws holding door panel to liner; (2) Close door with a potholder inserted at opposite lower corner of door. While holding door in at bottom corner where potholder is located, press top of door at opposite corner in toward the over; (3) Open door and tighten screws.

Microwave Oven

The built in Magic Chef® microwave oven, Model M41-3 adds a new dimension in modern cookery to your Avion. The unit plugs into 110-volt outside electrical power via a receptacle located inside the back of the oven cabinet.

Using the Oven

1. Open oven door and place food inside. The interior light comes on automatically when door is opened and remains on during the cooking cycle.

2. Turn the solid-state heat control to the desired setting. The cookbook included with your oven gives recommended settings to use when cooking or defrosting. The "low" setting is approximately 10% of full heat, with each number on the control dial representing a corresponding percentage of full power ("3" indicates 30%, "5" is 50%, etc.).

3. Set the timer by turning counterclockwise to the appropriate position. For cooking times less than one minute, move the dial counterclockwise past "1" and then clockwise to the number of seconds desired (each mark represents 15 seconds).

4. Close the door to start the cooking sequence. The blower and heating indicator light will come on, and the timer will gradually return to "off" as cooking time elapses.

Note: The oven light may flicker at heat settings less than "high," and you will hear the sound of the oven controlling the cooking. This is normal operation at settings below full power.

5. When cooking has been completed, a bell sounds and the oven, blower, heating indicator light and interior light shut off automatically, to assure that microwave energy is no longer being produced.

6. If the door is opened during operation, the interior light will remain on but all microwave energy stops instantly. The blower, heating indicator light and timer also stop automatically and will restart only when the door is closed again.

7. The oven may emit smoke during operation if the browning dish is used. This is caused by spattering on the special cooking surface of the dish and is normal.

8. Some food containers may get hot during cooking, either from the food inside them or from microwave absorption by the container. See your cookbook for complete information.

9. Some foods may not cook as rapidly as the cookbook indicates, due to variations in the size, shape and weight of the items, Cookbook times and settings are intended as guidelines to help prevent overcooking, which is the most common problem in becoming familiar with a microwave oven. Use your own judgment along with the cookbook suggestions and check the food occasionally while it is cooking, just as you do with a conventional oven.

10. Be sure the timer is in "off" position whevenver there is no food in the oven.

Caution: Corn should not be popped in your microwave oven due to the possibility of fire. Also, as with conventional cooking, excessive over cooking of food in a microwave may cause it to ignite.

Care and Cleaning

Clean your microwave oven with a mild, non-abrasive detergent and warm water. Use a soft cloth to apply the solution to all exposed exterior and interior surfaces, including door, shelf, and side, top and back walls. Rinse well and wipe dry. The rubber door seals should be cleaned in the same manner and kept free of grease and food spatters to insure proper closure. Wipe spills from the shelf with a damp cloth every time you clean the oven. Accumulated material will dry and become more difficult to remove. **Never use scouring pads, powdered cleansers or other abrasive products to clean the oven.**

To replace the interior light bulb, remove oven from cabinet, disconnect trailer from 110-volt power source, loosen the screw on the rear access panel and open it. Replace bulb with a similar 25-watt bayonet-type. Close rear access panel and tighten screw.

Precautions Regarding Microwave Energy

Always observe the following precautions to avoid possible exposure to excessive microwave energy from your oven.

1. Do not attempt to operate oven with the door open, since this can result in harmful exposure to microwave energy. Safety interlocks have been built into the unit to prevent open-door operation, and it is important not to defeat or tamper with them.

2. Do not place any object between the oven front face and the door, or allow food, grease or cleaner residue to accumulate on sealing surfaces.

3. Do not operate the oven if it is damaged. It is especially important for the oven door to close and seal properly. This may not be possible if the door is bent, if hinges and latches are broken or loose, or if door seals and sealing surfaces are dirty or damaged.

4. Do not attempt to adjust or repair the oven yourself. This should be done only by properly qualified service personnel.

Registration

The federal government requires filing of records on the location of all microwave ovens. A registration card has been included with your oven for this purpose. It should be completed and mailed to the manufacturer upon delivery of your Avion travel trailer. In the event you move, the manufacturer should be notified of your new address in order to keep the registration current.

Trouble-Shooting

If operating instructions have been followed and the cooking cycle does not begin, take one or more of the following steps.

1. Make sure the oven door is closed and latched tightly.

2. Check to see that the 110-volt power cord is connected to the receptacle inside the oven cabinet.

3. Check 110-volt circuit breakers at the Electrical Control Center.

4. Move timer to the "off" position and try resetting.

If oven cooks too slowly check source of wiring to trailer. Voltage loss due to inadequate wiring could cause reduced cooking power (slow performance).

Caution: If the unit continues to malfunction after these steps have been taken, have it checked by an authorized technician. Do not attempt any repairs yourself.

Furnace

Your Avion coach is equipped with a Duotherm gas furnace specifically engineered for trailer use. The forced air, direct vent system unit is certified by the American and Canadaian Gas Associations for safety and performance when used with LPG fuel.

Features

The furnace has a number of features that make heating precise and convenient. Dual blowers provide efficient heating and maximum air distribution. The **combustion air blower** draws air from outside the trailer and into the combustion chamber, then out through the exhaust tube.The **circulating room air blower** recycles interior air by pulling it through the intake grille, then forcing it across the heat chamber and out the heat registers. The blower chambers are sealed to prevent mixture of combustion air and circulating air.

Heated air is also delivered to and around the fresh water holding tank by a duct network, to aid in preventing freezing during cold weather operation.

Duotherm's solid state electronic ignition system eliminates the pilot light and manual ignition of the furnace.

The furnace is turned on and off automatically by a wall thermostat. Simply set it to the desired temperature and forget it.

Operation

When the thermostat calls for heat, the blower motor is energized after 15-30 seconds delay. One motor is used to drive both the combustion air and the circulating air blower wheels. Although one motor drives both wheels, the blowers are separate. The combustion air blower is sealed so as to allow no passage of air between it and the circulating room air blower. The combustion air blower draws air from the outside atmosphere, discharges it into the combustion chamber, and forces the combustion products out the exhaust tube. The circulating room air blower pulls return air in and forces it across the heat chamber, discharging it to the area to be heated.

As the blower motor reaches approximately 75 per cent of its full speed, the combustion switch will engage allowing current flow to the gas valve and the automatic ignition device. After the thermostat is satisfied, the gas valve will close, and the flame on the main burner will go out. The blower will continue to run for a short period and will then shut off.

Follow these steps to start the furnace operation:

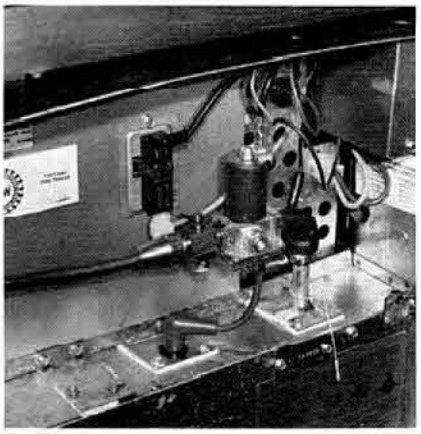
IMPORTANT: FAILURE TO FOLLOW THESE LIGHTING INSTRUCTIONS EXACTLY MAY RESULT IN DAMAGE TO THE UNIT.

1. Set the thermostat to "OFF" position. Remove furnace front panel.
2. Turn gas valve to "OFF" position, Wait 5 minutes.
3. Turn gas valve to "ON" position. Set thermostat to "ON" position and adjust to desired setting.
4. Allow 15 seconds for burners to ignite.
5. If burners do not light, set thermostat on "OFF" position, wait 5 seconds, then re-set thermostat to "ON" position.
6. Replace furnace front panel.
7. If ignition is not successful after three attempts, turn gas valve knob to "OFF", and thermostast to "OFF", and refer to TROUBLE-SHOOTING, PAGE 94.

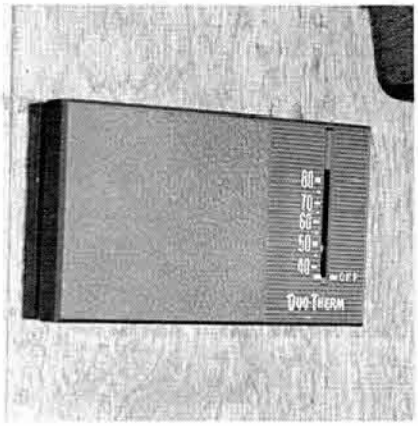
Helpful Hints

1. Excess humidity can be removed from inside the coach while the furnace is on by creating cross ventilation. The recommended method is to slightly open a roof vent and one window.
2. Do not block the flow of air through the furnace exhaust/air intake grille or through the heat registers. **Blocking any air duct will severly hamper furnace efficiency.**
3. Portable fuel-burning equipment, including wood and charcoal grills and stoves, must not be used inside the recreational vehicle. The use of this equipment inside the recreational vehicle may cause fires or asphyxiation.

Caution: Never cover the flue exhaust gas vent, located on the outside wall of the coach. Obstruction of this vent can cause dangerous exhaust gases to remain inside the trailer. Check the exterior exhaust vent often to insure against clogging. Do not touch the vent during or immediately after the furnace has been running, since it becomes very hot during operation.



Furnace Gas Valve



Furnace Thermostat

WARNING

PORTABLE FUEL-BURNING EQUIPMENT, INCLUDING WOOD AND CHARCOAL GRILLS AND STOVES, MUST NOT BE USED INSIDE THE RECREATIONAL VEHICLE. THE USE OF THIS EQUIPMENT INSIDE THE RECREATIONAL VEHICLE MAY CAUSE FIRES OR ASPHYXIATION.

Maintenance

The Duo-Therm furnace is equipped with a sealed motor that is lubricated for life. The furnace itself does not require any routine maintenance or cleaning, if properly adjusted. However, carbon deposits may form on the inside of the combustion chamber if the main burner has been operated with a high yellow flame (indicative of restricted air flow).

Heavy carbon deposits require cleaning.

Use a vacuum cleaner for best results.

Caution: Always shut down the furnace before attempting any service or maintenance. This is accomplished by turning off the manual gas valve located at the furnace and setting the wall thermostat to the "off" position.

You can expect many years of trouble-free service from your Duo-Therm furnace in normal use, if you you follow the manufacturer's operating and maintenance instructions. Should a problem arise, however, you will probably be able to correct it yourself by using the following guide. See manufacturer's literature for additional trouble-shooting suggestions. If the difficulty persists, consult Duo-Therm authorized service center.

Trouble-Shooting

Symptom	Cause	Remedy
Furnace does not generate heat.	Thermostat set improperly or malfunctioning.	1. Reset if too low or in "off" position. 2. Reconnect thermostat wire to terminal if loose.
	Gas valve closed.	1. Open valve.
	Electrical malfunction.	1. Recharge batteries if blower fan runs below full speed. 2. Tighten connections at battery terminals.
Furnace does not operate.	Faulty wiring.	1. Tighten all connections. 2. Correct short circuits. 3. Check for proper wiring connections to AC/DC power converter.

Water Heater

Standard equipment includes a six-gallon capacity Atwood Vacuum Machine Company gas water heater, Model G6A2E, the finest unit available for recreational vehicle use. It incorporates a number of exceptional features for safety and ease of operation.

Electronic ignition completely eliminates the pilot light and therefore the problems of pilot outage, bad weather light, and shut down. One switch at the Monitor Panel ignites the water heater and operates it automatically until you turn it off.

Atwood's unique triple-gap construction insulates side walls from hot flue gases, keeping the water hot but not the coach interior. In addition, the through-tube sealed combustion chamber vents both air intake and exhaust gases through a single opening. This design not only eliminates the possibility of fumes entering the trailer, it also provides one of the most efficient heat transfer systems available.

A 125-psi capacity temperature relief valve in the water heater prevents the release of excessive water pressure through the faucets when they are turned on. Instead, as the rising temperature inside the closed system causes pressure to increase as the heated water expands, the pressure will automatically be released through the exterior relief valve when it reaches the 125-psi limit.

Operation

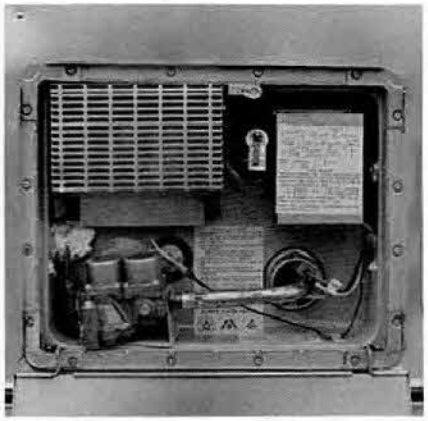
The water heater is located on the road side of the coach, near the back end. A compartment is provided for access to the gas controls and drain valve. To open the louvered panel, pull the spring-loaded lever at top, rotate until it is lined up with the slot on the panel, then release. The door is hinged at the bottom and swings down. It may be padlocked for security, if desired.

Activation of the water heater requires only two simple steps.

1. Check to be sure there is water in the water heater tank.

2. Press the Water Heater switch on the Monitor Panel to "on". This activates the pilotless ignition and lights the burner.

   NOTE: More than one start attempt may be required on first use, or after refilling LP gas tanks.



Water Heater Outside Access Compartment

To shut down the water heater, press the ignition switch to "off" and remove red wires from left-hand terminal of ECO switch.

Maintenance

The Atwood water heater is virtually maintenance-free. All that is necessary is to drain it if the trailer will be out of service during winter months. The drain valve is located in the exterior access compartment, at the front of the water heater. Refer to **Winter Storage** section, page 102, for more information on water system draining.

Under some conditions the Monitor Panel "Water Heater" light may not flash when the heater is turned on. Please refer to **Trouble-Shooting,** page 96. If the water heater fails to ignite because of excessively high water temperataure, the indicator light will come on. When water cools, reset heater by turning switch off for at least 30 seconds. Turn switch back on. If this fails, contact Atwood Service Center.

Trouble-Shooting

Symptom	Cause	Remedy
Monitor Panel light does not flash when switch is turned on.	Water in tank has reached 160°.	Drain off water until it falls below 160° then observe unit for start up.
	Battery producing less than 10 volts.	Recharge battery.
	ECO switch has cut off.	Let water cool. Turn ignition switch off. Wait 30 seconds. Turn switch back on.
	Incorrect or faulty wiring.	Check wiring using schematic diagram in water heater service manual.
	Defective Monitor Panel switch.	Replace switch.
	Defective ECO switch.	Check for closed contacts with continuity tester. Replace switch if faulty.
	Defective thermostat.	Replace if contacts are not closed when thermostat is cooled.
Monitor Panel light remains on (not a flash) when switch is turned on.	Battery producing less than 10 volts.	Recharge battery.
	Improper wiring.	Check schematic diagram in water heater service manual.
	Circuit board ground wire or ground at back of unit broken or disconnected.	Repair or reconnect ground.
	Flame sensing probe is grounding to flame spreader or burner.	Check by removing lead from probe. If unit goes through lock-out cycle, bend sensing probe away from flame spreader and replace lead.
	Top of SCR is contacting sheet metal casing with power off.	Bend SCR top until it does not touch sheet metal.
Monitor Panel light flashes, then stays on when switch is turned on.	No gas supply.	Make sure all gas valves are open. Unit must have minimum 11 inches water column pressure.
	Faulty connection to solenoid valve.	Check connection with volt meter (should read 12 volts).
	Defective solenoid valve.	Check with one lead on case, one lead on white wire. An audible click should be heard. If not, replace solenoid valve.
	Water temperature at 160°, causing contacts to fluctuate.	Drain off water until temperature drops below 160°.
	Defective circuit board.	Replace circuit board.
Monitor Panel light flashes one time, then goes out when switch is turned on. Heater ignition does not take place.	Spark probe grounded.	Correct gap. Should be 1/8-inch from center wire and/or burner tube, with flame spread up.
	Broken or shorted spark probe wire.	Repair or replace the heavy insulated, light brown wire.
	Water temperature at 160°, allowing contacts to fluctuate.	Drain off water until below 160°.
	Defective circuit board.	Replace circuit board.

Symptom	Cause	Remedy
Yellow main burner flame.	Improper air adjustment.	Correct the air adjustment.
	Main burner orifice partially clogged.	Remove and clean. Do not enlarge.
	Main burner tube obstructed.	Remove and clean.
	Flame spreader bent or missing.	Straighten or replace flame spreader.
	Inadequate gas pressure into valve.	Check with monometer for minimum 11-inch water column pressure.
	Inadequate gas pressure at outlet side of valve.	Remove pressure tap plug from right front of solenoid valve. Insert 1/8-inch NPT pipe nipple. Hook up monometer and turn on unit.
	Obstruction in upper left side of grille.	Make sure grille is not covered by tape, filters, etc.
	Gas solenoid bracket not aligned.	Align bracket so that orifice is pointed up the center of main burner.
Relief valve drips or weeps.	Pressure build-up due to cold water being heated.	Normal condition. No action necessary.
	Foreign material on valve seat.	Flip valve handle several times to dislodge material.
	Valve popped open by steam formed in partially-filled tank.	Purge air from water system by turning on a sink faucet.
	Faulty valve.	Replace relief valve is weeping is persistent.
Tank leaks water.	Defective fitting.	Check all plumbing fittings for leaks and repair them.
	Corroded tank.	Refer to water heater warranty for tank replacement.

Air Conditioner

The Duo-Therm® air conditioner is roof-mounted and may be used for cooling or heating. Its 13,500 BTU cooling capacity assures maximum comfort at all times.

Operation

All functions are controlled by selector knobs located on the interior air box cover in the ceiling. These controls operate the blower and thermostat (see photo).

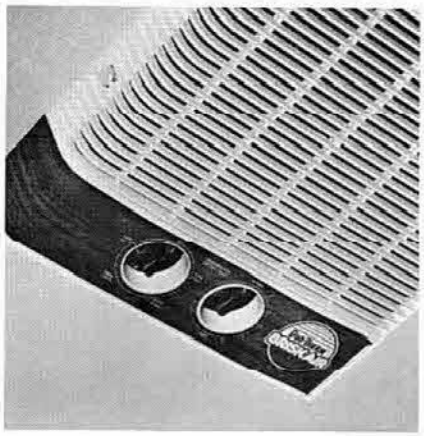
1. **Cooling.** Set thermostat to desired temperature setting. Turn blower fan switch to high, medium or low cool position. **The air conditioner will not operate until this speed selection has been made.** Adjust air discharge louvers for desired air circulation pattern. To shut off the unit, simply turn the blower switch to "off".

2. **Heating.** Set thermostat to the warm setting. Turn blower fan switch to high, medium or low heat. **The unit will not operate in its heating mode until blower speed selection has been made.** Adjust louvers for desired distribution. Shut off the unit by turning blower switch to the "off" position. This feature is not intended for heating the trailer but rather to take the chill off.

For maximum operating performance and economy, always close windows, vents and the main door before using the air conditioner. **Make sure the gas furnace thermostat is set at "off".**

Maintenance

Although the Duo-Therm air conditioner requires little maintenance, the air filter should be cleaned or replaced periodically to keep the unit running at peak efficiency. To remove filter, turn the two screws on side of air box with a screwdriver or coin. The louvered cover will drop down, permitting access to the filter. Wash filter in warm sudsy water, then rinse it and dry between two paper towels before reinstalling. **Do not operate the air conditioner without an air filter.** Replacements are available from Duo-Therm dealers and distributors.



Air Conditioner Controls

Air Conditioner Filters

Trouble-Shooting

Symptom	Cause	Remedy
Unit will not run.	Power cord not making good connection.	Check connection. Make sure cord weight does not pull plug from receptacle.
	Circuit breaker is in "off" position.	Reset circuit breaker at Electrical Control Center.
Unit does not cool properly.	Dirty air filter.	Clean or replace filter.
	Voltage too low for compressor to operate.	Hook up to power source of at least 110 volts.

Maintenance

Winter Storage

Your new Avion requires special attention during the winter months in colder climatic regions. In extreme cases, increased pressure caused by the expansion of freezing water can burst plumbing. You can avoid the possibilities of such damage by winterizing the fresh water system, rinse water drainage systems, and the trailer batteries. Observe the following procedures.

1. **Level the coach from side-to-side and front-to-rear.**

2. **Turn off water heater at Monitor Panel.**

3. **Turn off gas system at LPG bottle.**

4. **Inspect the drain lines.** Avion's water lines have been engineered to permit draining by gravity, and should be checked to verify that they are intact and have not been bent out of position.

5. **Locate the fresh water holding tank drain valve** on the road side of the coach at the rear, under either a bed or dinette seat or optional side vanity. See water systems diagrams, page 67, for specific locations.

6. **Drain the fresh water holding tank.** Switch on water pump at the Monitor Panel and open the drain valve located in the exterior compartment behind the roadside wheel housing. Open all sink and shower/tub faucets to **full cold position.** Open the bypass valve. Any fresh water remaining in the lines will flow from the sinks and bathtub and then drain through the rinse water plumbing into the rinse water holding tank.

7. **Drain the water heater tank.** Turn off water pump at the Monitor Panel rocker switch. Leave sink and shower/tub faucets open to provide a vent. Open the outside panel of the water heater access compartment, then remove plug and allow tank to drain. Drain valves for both hot and cold water lines are located in the bathroom vanity cabinet. Open these valves to drain water lines. **These drain valves must be closed and the water heater must be closed and the water heater plug replaced before the water system can be used again.**

8. **Drain the toilet.** With the bathroom sink faucet open to full cold, depress both foot pedals at base of toilet. This operation will clear the water line to the toilet and allow the system to drain into the solid waste holding tank. Open the drain valve behind the toilet, and with the sink faucet still on full cold, again hold down both pedals to clear the line. **This drain valve must be closed before using the water system again.**

Note: Do not attempt to flush a frozen toilet. If water is inadvertently left in the bowl, the unit should be allowed to thaw at room temperature before flushing.

9. **Drain the water saver spray gun.** Hold the spray head over a receptacle placed on the bathroom floor, depress the valve button, and keep it in the "open" position with tape or a rubber band. Allow the spray hose to drain completely. The spray head should then be removed from its hose and stored to prevent damage from freezing.

10. **Drain the telephone-style shower head and hose.** With the shower/tub faucet open and set midway between hot and cold, move shower head volume control button to "on" position and drain the hose completely. Remove shower head and store it.

11. **Drain the water pump.** Open fresh water tank drain valve, bypass valve, and water system drain valve. Remove the outlet hose on the pump. Turn the pump on and allow it to discharge any remaining water. Reconnect the outlet hose. The water pump should then be switched off, but all valves should be kept open to allow gravity draining of any water that may be left in the lines. **These valves must be closed before using the water systems again.**

12. **Drain all remaining water from the lines.** Place chocks in front of and behind all trailer wheels. Crank the post jack until fully extended. This will raise the front end of your Avion high enough to permit most water remaining in the lines to drain. Then retract the jack to its lowest position to complete the draining process. Return coach to its level position.

13. **Drain the traps.** They are located in the galley sink, bathroom sink and bathtub. Use a suction pump to remove any water from these traps, or pour one cup of **ethylene glycol-base antifreeze** into each trap. Avoid spilling the solution on plastic surfaces to prevent discoloration. Do not travel with antifreeze in sink or tub traps unless the drain plugs are inserted securely to preclude splattering.

    Important: Never use an alcohol-base antifreeze.

14. **Drain the rinse water and solid waste holding tanks.** Connect sewer hose from the trailer sewage outlet to a sanitary dump station, open the valves on both holding tanks, and drain completely. Then flush the tanks with clean water.

15. **Protect the water purification system.** Remove cartridge from the optional water purification system and allow it to dry thoroughly, then store for the winter.

16. **Remove the batteries.** Your Avion's batteries should be removed and stored in a temperate environment during sub-freezing weather. Battery life can be prolonged by making regular checks of fluid level and maintaining a full charge. This is especially crucial in cold weather, when a full charge can prevent internal freezing.

17. **Remove easily damaged items.** Foodstuffs, cosmetics, liquids, etc., should not remain in the trailer during winter storage. Such products might suffer freezing damage or could burst their containers and harm the interior of your Avion.

Additional Winter Protection

If you desire a further measure of protection, add an antifreeze solution to the entire water system. **Use only a non-toxic type approved for drinking water systems,** and proceed as follows:

1. Close all drains and reconnect all lines. Disconnect the water pump inlet hose.

2. Attach a length of antifreeze hose to the water pump inlet port. The hose should be long enough to reach the bottom of the antifreeze container.

3. Dilute the antifreeze according to manufacturer's instructions.

4. Open all sink and shower/tub water faucets fully, with the setting midway between hot and cold.

5. Insert the free end of the hose into the antifreeze container until it touches bottom.

6. Switch on the water pump and run it until the antifreeze solution fills all fresh water lines and the water heater.

7. Flush the toilet, and run water saver spray gun and shower head until the lines are filled.

8. Close all faucets and switch off the water pump.

9. Remove the antifreeze hose from the water pump inlet port and reconnect the water pump inlet line.

Service Intervals

We recommend that you visit your authorized Avion dealer after winter storage for a preventative maintenance check-up and cleaning of the LPG-operated appliances. **This insures against potentially dangerous gas leaks.** When preparing your trailer for a new season of use, be sure to flush any antifreeze solution thoroughly and to close all valves before refilling the system with fresh water.

If you use your Avion year-round, see your dealer every six months for preventative maintenance.

Full One-Year Warranty

For trailers manufactured by subsidiaries of Fleetwood Enterprises, Inc.
Sold in the United States and Canada

Coverage Provided

Your new travel trailer, including the structure, plumbing, heating and electrical systems, and all appliances and equipment installed by the manufacturer, is warranted under normal use to be free from manufacturing defects in material or workmanship.

This warranty extends to the first retail purchaser and his transferee(s) and begins on the date of original retail delivery or the date the travel trailer is first placed into service as a rental, commercial or demonstrator unit (whichever occurs first). This warranty extends for a period of one year from such date. Written notice of defects must be given to the selling dealer or the manufacturer not later than ten (10) days after the expiration of the applicable warranty. Warranty repairs, if required, will be made without charge after your travel trailer is taken to the dealer or manufacturing plant location.

Owner's Obligations

The owner is responsible for normal maintenance as described in the Owner's Manual; however, minor adjustments (such as adjustments to the interior or exterior doors, LP regulator pressure, cabinet latches, TV antenna control, etc.) will be performed by the dealer during the first 90 days of warranty coverage. Thereafter, such adjustments are the responsibility of the owner as normal maintenance unless required as a direct result of repair or replacement of a defective part under this warranty.

If a problem occurs which the owner believes is covered by this warranty, the owner shall contact the SELLING DEALER, or other authorized dealer, giving him sufficient information to resolve the matter. The owner shall deliver the travel trailer to the **dealer** or manufacturing plant location for warranty service.

Dealer's Obligations

By agreement with the manufacturer, the dealer is obligated to maintain the travel trailer prior to retail sale, to perform a detailed predelivery inspection and to repair or replace any parts necessary to correct defects in material or workmanship.

When The Dealer Does Not Resolve The Problem

If the dealer is unable or unwilling to resolve a problem which the owner is convinced is covered by the warranty, he should contact the **manufacturing plant** at the address listed below and provide the manufacturer with a description in writing of the problem and attempts made to resolve it.

Manufacturing Plant Obligations

Upon receipt of notice of a claim, where the dealer was unable or unwilling to resolve the problem, the manufacturing plant will repair or replace any parts necessary to correct defects in material or workmanship, or will take other appropriate action as may be required.

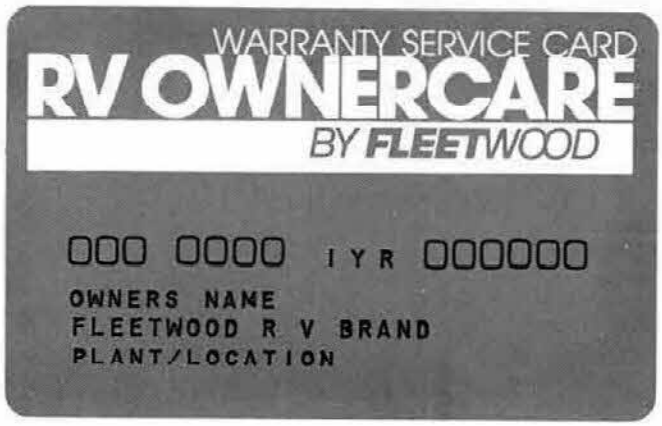
When The Manufacturing Plant Does Not Resolve The Problem

If the representatives of the manufacturing plant are unable to resolve the problem and the owner is convinced that it is covered by the warranty, the owner should call the toll-free number listed below to describe the problem and the attempts made to resolve it.

What Is Not Covered By This Warranty

THIS WARRANTY DOES NOT COVER:

1. TIRES AND BATTERIES, WHICH ARE COVERED BY THE SEPARATE WARRANTIES OF THE RESPECTIVE MANUFACTURERS OF THESE COMPONENTS.



Ownercare Card

2. DAMAGE CAUSED BY OR RELATED TO:
   A. ACCIDENTS, MISUSE, OR NEGLIGENCE
   B. FAILURE TO COMPLY WITH INSTRUCTIONS CONTAINED IN THE OWNER'S MANUAL;
   C. ALTERATION OR MODIFICATION OF THE TRAVEL TRAILER;
   D. ENVIRONMENTAL CONDITIONS (SALT, HAIL, CHEMICALS IN THE ATMOSPHERE, ETC.)

3. NORMAL DETERIORATION, DUE TO WEAR OR EXPOSURE, SUCH AS FADING OF FABRICS OR DRAPES, CARPET WEAR, ETC.

4. NORMAL MAINTENANCE AND SERVICE ITEMS, SUCH AS LIGHT BULBS, FUSES, LUBRICANTS, ETC.

5. EXTRA EXPENSES SUCH AS TRANSPORTATION TO AND FROM DEALER OR MANUFACTURING PLANT LOCATION, LOSS OF TIME, LOSS OF PAY, LOSS OF USE OF THE TRAVEL TRAILER, INCONVENIENCE, COMMERCIAL LOSS, TOWING CHARGES, BUS FARES, VEHICLE RENTAL, INCIDENTAL CHARGES SUCH AS TELEPHONE CALLS OR LODGING BILLS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES (OTHER THAN INJURY TO THE PERSON.)

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.

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

DEALERS OR ANY OTHER PERSONS ARE NOT AUTHORIZED TO MAKE MODIFICATIONS TO THIS WARRANTY. ANY ADDITIONAL STATEMENTS CONCERNING THIS WARRANTY, WHETHER ORAL OR WRITTEN ARE NOT THE RESPONSIBILITY OF THE MAUFACTURER AND SHOULD NOT BE RELIED UPON.

Corporate Headquarters:
Consumer Affairs Department
Fleetwood Enterprises, Inc.
P.O. Box 7300
Riverside, California 92523
From California: (800) 442-4804
From Outside of California:
(800) 854-4755

Ownercare Card

You will automaticallly receive an Ownercare Card aproximately 3-4 weeks after delivery of your new Avion. This plastic card is imprinted with your name, trailer serial number and manufacturing plant location, and should be presented to the dealer whenever service is required.

Always return your coach to the selling dealer for warranty service. If this is not possible, you may contact any other authorized Avion dealer or any authorized Fleetwood dealer having a travel trailer service facility.

While all installed appliances and equipment (except tires and batteries) come under Avion's warranty, they are also covered by separate warranties of the individual manufacturers. Copies of manufacturers' warranties and operating instructions should be provided by the selling dealer at time of delivery.

We recommend that you contact the manufacturers' own service organizations directly for all warranty adjustments and repairs. If you are unable to locate a convenient service point through their literature or the Yellow Pages, contact your Avion dealer for assistance.

Maintenance Schedule

Item	Every 1,000 Miles or 30 Days	Every 5,000 Miles or 90 Days	Every 10,000 Miles or 6 Months	Procedure
All Exterior Door Locks	•			Lubricate by shooting in dry graphite.
Axle		•		None, except wheel bearings.
Batteries	•			Check water level—fill with distilled water only.
Brakes			•	Inspect and replace as necessary.
Break Away Switch		•		Lubricate with light household oil.
Folding Step	•			Lubricate moving parts.
Hitch Ball Latch	•			Lubricate with engine motor oil.
Hitch Jack	•			Lubricate with light household oil (put oil can spout up under handle and allow oil to run down post).
LPG System Leak Test		•		See page 61.
Main Door Hinges	•			Lubricate with light household oil.
Overhead Cabinet Struts			•	Lubricate with light household oil.
Range Exhaust Hood				Clean fan blades and wash filter.
Refrigerator Flue Cleaning		•		See page 84.
Roof Vent Elevator Screws	•			Lubricate with light household oil.
Strike Pocket on Main Door	•			Coat with paraffin.
T.V. Antenna	•			Lubricate exterior moving parts with silicon spray.
Tire Rotation		•		See page 37.
Tires	•			Check for foreign objects. Air pressure—page 35.
Wheel Bearings			•	Clean, repack, and adjust.
Wheel Lug Bolts		•		Check for tightness.*
Window Seals/Door Seals		•		Clean with mild detergent and coat with silicone.
9-Way Plug and Receptacle		•		Clean contacts and coat with a spray cleaner.

*On new trailers check every 200 miles for the first 1,000 miles.

Maintenance Record

Date	Dealer	Address	Service Performed

Specifications

Tank and Appliance Capacities

Tank	Capacity
Fresh Water Holding Tank	65 gal.
Rinse Water Holding Tank	30 gal.
Solid Waste Holding Tank	40 gal.
Water Heater	6 gal.

Bulb Replacement

Description	Location	Number
Single square fixture	Center bath, center bath shower and trunk	1141
Dual square fixtures	Ceiling lights and below overhead cabinets	1141
Mirror lights	Rear bath	1143/1139
Indirect lighting	Behind front valance	1141
Interior convenience lights	Below front and rear overhead cabinets, and above entry door	1139
Range hood lights	Over range	912
Exterior convenience lights	Hitch, roadside rear utility door, and above entry door	T 105
Living room ceiling fixture	Over dining table	1141
Oven light	Oven	15 watt, 12 volt, standard base
Running lights	5 front, 5 rear and side markers	1895
Back-up lights	Taillight housings	1156
Stop/turn and taillights	Taillight housings	1157
License plate light	License plate	67
Reading lights	Divider wall	1176

Component Specifications

Appliance	Manufacturer	Model
Range and Oven	Magic Chef (Gaffers-Sattler)	BT22JS-4TVX
Refrigerator	Dometic	RM 1303AES
Monitor Panel	Jensen Wemac	Avion
Water Heater	Atwood	G6A-3E
Furnace	Duotherm	90030-412
T.V. Antenna	Braund	Skyliner
Toilet	Thetford	Aquamagic D8445
Electrical Control Center	B-W	6345UL-CLKJ1
Water Pumps	Shur-flo	200-220-39
Galley Faucet	Delta	111
Tub Faucet	Delta	636
Lavatory Faucet	Delta	522
Stereo Radio / Tape Player	ASI	DY-9700 (Cassette)
Microwave Oven	Magic Chef	M-41-3
Air Conditioner	Duotherm	55915 w/3-15603

Fuses and Circuit Breakers

Electrical Control Center

12 Volt Circuit Number	Circuit Location	Rating
1	Door side	20 amp
2	Road side	20 amp
3	Ceiling	20 amp
4	Rear	20 amp
5	Monitor Panel POWER ON light	3 amp
6	Outlets, monitor panel, radio, water pump	20 amp

110 Volt Circuit Number	Circuit Location	Rating
1	Main	30 amp
2	Receptacles	20 amp
3	Receptacles	20 amp
4	Air conditioner	20 amp
Radio fuse	Behind Monitor Panel	3 amp
Battery fuse	At batteries	40 amp
Water pump fuse	At pump	10 amp
Power jack fuse	At batteries	20 amp
Refrigerator fuse	At Batteries	30 amp

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