

Dear Wanderlodge Owner:

Thanks for choosing Wanderlodge!

We want to personally welcome you to our Family of Friends and we invite you to visit us at our Fort Valley facilities whenever you wish. We are always happy to see you and we are deeply interested in your experiences as you use and enjoy your Wanderlodge coach. We recognize that it is our relationship to you, the Wanderlodge owner, that contributes most to the prestige of ownership of this finest over-the-road coach.

We trust that as you become more intimately acquainted with your new coach, the sound, careful thoughts behind every aspect of its design will become increasingly evident and your initial decision to choose Wanderlodge will be positively reinforced with every mile.

We acknowledge the good faith you have demonstrated in our product. All of us at Wanderlodge take great pride in our handiwork and want to do everything possible to engender in you what has become the Wanderlodge experience; the deep satisfaction that comes from years of a sure confidence of having chosen ... the very best.

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INTRODUCTION

This section of your Owner's Manual contains general hints and recommendations for using your motor home. Checklists and suggestions are offered which cover just about every phase of motor home travel.

The remaining sections of this manual describe the operation and use of the individual items and systems which comprise your motor home.

Manufacturer's manuals for components and appliances are included in your owner's kit. Please refer to these for more detailed information.

We hope that this manual will help answer questions that may arise about the use operation and maintenance of your motor home. Any suggestions or recommendations that you might have for including or expanding on material of interest will be carefully considered for incorporation in future publications. We are always interested in providing our coach owners with the most current and comprehensive information about our product.

CHECKLISTS

A little preliminary planning will go a long way to help make your trips successful and enjoyable. As an aid to planning your travels, review the following checklists. If there are any additional items that you should be reminded of, add them where you see fit. These lists are only recommendations based on the experience and suggestions of sources well-versed in motor-coach expertise. You will eventually find that a short "walk-around" the coach, outside and inside, will be adequate and comprehensive enough to ensure that you are ready for travel.

BEFORE YOU LEAVE:

- Store valuables and important papers in a safe place.
- Arrange care for your pets.
- Cover all food to keep out mice and insects.
- Store oil, gasoline, matches and other inflammables properly; get rid of newspapers, magazines and oily rags.
- Connect timers to several inside lamps and outside lights; keep some shades open for a lived-in look.
- Discontinue newspaper, milk and other deliveries; store trash cans and outside equipment.
- If weather permits, shut down hot water and heating systems; close main water supply.
- Ask the Post Office to hold your mail.
- Have your lawn, garden and house plants cared for.
- Arrange with the Telephone Company for discontinued or "Vacation Service".
- Lock all windows and doors securely.
- Leave your key with your neighbor and let them know your basic itinerary.
- Notify police.

CHECKOUT YOUR COACH - OUTSIDE

- Disconnect and stow:
 1. Electrical cord.
 2. Sewer hose (flush out).
 3. Water hose.
- Check all exterior lights for proper operation.
- Check wheel lug nuts for tightness. (See **Tire/Wheel Change Procedure**).
- Check tires for correct pressure. (See **Tire Inflation**).
- Check that all external compartments and filler openings are properly closed and/or locked.
- Check that items stored on exterior of coach are secured. (Be sure that these items present no clearance problems.)

NOTE

If the trip you are planning will take the coach well past suggested maintenance intervals, it may be advisable to perform these procedures before leaving. This may avoid unscheduled stops or interruptions during your trip.

- Check that there are no obstacles to avoid above or under the coach. Be sure that there is sufficient clearance front and rear.

CHECK YOUR AUTOMOTIVE SYSTEMS:

- Check that fluid levels are normal (oil, power steering, engine coolant, windshield washers, transmissions, etc.).
- Check generator oil level, coolant level, battery condition.
- Check operation of turn signals, emergency flasher, stoplights and backup lights.
- Check that headlight high- and low-beams operate.
- Check horn operation.
- Check fuel gauge, and add fuel if needed.
- Start engine and check gauges for signs of trouble.
- Check operation of foot brakes and parking brake.

CHECKOUT YOUR COACH - INSIDE:

- Close windows and vents.
- Check that cabinet doors and drawers are secured.
- Check that refrigerator door latch is in locked position.
- Check that no heavy item is stored in an overhead cabinet.
- Store large items in base cabinets.
- Check that counter tops, range top, table tops and shelves are clear of unsecured items.
- Turn off interior lights; check that entrance step is retracted. Secure and lock the entrance door.
- Adjust exterior mirrors.

WARNING

Mirrors provide needed additional driver visibility. To be effectively used, mirrors must be properly adjusted for each driver and the driver must be aware of the limitations on viewing area that exist even when mirrors are properly used.

AND, BEFORE DRIVING AWAY

- Check operation of appliances and special equipment.
- Check that fire extinguishers are fully charged.
- Check operation of interior and exterior lighting.
- Start generator and check 120 VAC system and wall outlets.
- Adjust driver's seat so that all controls are within easy reach.
- Make sure that seat is locked in position. Do not adjust driver's seat swivel or fore/aft mechanism while vehicle is moving or seat could move unexpectedly, causing a loss of control.
- Check that front passenger's seat is locked in position.
- Fasten seat belts. Belts should be placed as low as possible around the hips. This places the load of the body on the strong hip bone structure instead of around the soft abdominal area and prevents sliding in case of accident.

CAUTION

Child restraint systems are designed to be secured in vehicle seats by lap belts or the lap belt portion of a lap-shoulder belt. Children could be endangered in a crash if their child restraints are not properly secured in vehicle.

- Check that warning lights are lit when the ignition key is turned to on or start position.

SOME ITEMS YOU MIGHT WANT TO TAKE ALONG ON YOUR TRIP

NOTE

You may find that many items taken were not needed and that some items that were needed were overlooked during planning of your last trip. Make notes of these items to prevent duplicating the same errors.

- Adequate supply of prescription medicines.
- Prescription sunglasses or reading glasses.
- Camera equipment and film supply.
- Heating pads, ice bags, etc.
- Stationery, envelopes, stamps
- Telephone number list.
- Reading material
- Special pet supplies.

- Extra toilet chemicals and toilet articles.
- Spare belts for engine operated equipment.
- Spare parts for generator: suggested spares include oil filter, fuel pump, air filter, solenoid. Five quarts of approved motor oil.
- A professional-type double-action tire pressure gauge. (Included in coach.)
- Under the heading of Emergency Equipment, it is advisable to consider outfitting your coach with these items:
 1. First aid-kit
 2. Emergency highway flares
 3. Flashlight or lantern (with extra batteries)
 4. Tool kit
 5. Replacement lamp assortment
 6. Replacement fuse and breaker assortment.
 7. Trouble light with a long cord

AND SOME OTHER THOUGHTS TO CONSIDER

- Automobile insurance to cover you and your family.
- Avoid cash. Use traveler's checks and credit cards wherever possible.
- Confirm reservations well in advance of arrival.
- Make a clothing check list for everyone.

CITIZEN'S BAND TRANSCEIVER

You might also bear in mind that your coach is equipped with a CB unit (Citizen's Band receiver-transmitter). In the event of an emergency situation which requires outside assistance, remember to call for help on Channel 9. This channel is restricted to emergency use only and it is monitored 24 hours per day! Don't hesitate to use your CB if you see someone else in need of assistance.

HOT WEATHER OPERATION

Wherever possible, choose a shaded parking site so that the coach will be cooler during the hottest part of the day. The optional patio awning will be especially useful in lowering inside temperature. Air conditioning units are indispensable in hot climates. Keep in mind that their proper operation depends on adequate line voltage. Low voltage causes motors to run hotter and reduces compressor motor life. Supply voltage in some campgrounds may not be as high as necessary, especially when there are heavy loads on the lines from other air conditioners. Check the right hand overhand auxiliary panel 120 VAC meters when in doubt.

COLD WEATHER OPERATION

If frost or condensation accumulates in closets or cabinets during long periods of cold weather operation, leave the doors to these areas slightly ajar to provide air circulation. Be sure that roof vents are open when using the gas cooktop.

CAMPGROUND COURTESY

Don't forget the "Golden Rule". Being considerate of your neighbors will help make friends. A few of the "Do's" and "Don'ts" are:

- Good housekeeping-put all litter in the proper receptacles and leave your site neat and clean.
- Don't allow your water or sewer hook-ups to leak.
- Respect your neighbor's desire to retire at an early hour. Avoid loud noises and bright lights after dark.
- Drive slowly through camp areas at any hour for the safety of pedestrians.

INSURANCE

As with your automobile, it is important that you have adequate protection with insurance coverage for personal liability, property damage, comprehensive, collision, medical payments, loss of use, etc.

Canadian and Mexican Insurance

Insurance for travel in Canada can usually be covered by your present U.S. policy for the recreational vehicle, often at no extra cost. Consult your individual company for procedures and be sure of your coverage before entry.

For travel in Mexico (at the present time) there are no U.S. insurance companies that can provide recognized Mexican coverage, with the exception of that required for travel through a narrow strip of Mexican territory in and around parts of entry and the U.S./Mexican border.

Mexican insurance is controlled, and rates are set, by the Mexican government. There are several reliable companies handling Mexican insurance, with similar rates for the necessary coverage. The principal differences between them are the "fringe benefits", received in the form of informational travelogues and other helpful information, such as dining places considered acceptable for sanitary conditions, fuel stations, and so on.

Some insurance services include detailed route maps with "where to stay" recommendations and "things to see" mile-by-mile (or kilometer-by-kilometer post). While the rates set by Mexico may seem quite expensive at first glance, you usually end up not spending quite as much as expected because you can usually arrange to hold your state-side policy in abeyance during the same period you are in Mexico, thus not having to pay unnecessarily for double coverage. In addition, you may be able to obtain substantial refunds on the Mexican collision insurance after your return to the U.S. Be sure to obtain a certification from the park operator at each location in Mexico to certify the dates that your coach was parked there. If your coach is parked for most of the time, instead of constantly traveling, your refund may be a major portion of the original cost. This feature is referred to as the "in-storage" credit. (It is a good idea to always check with your insurance company before taking a trip to find out whether applicable insurance rules and regulations have changed. Keep up to date on your coverage.)

Carry insurance papers at all times!

SAFETY CONSIDERATIONS

Using LP Gas

Check for leaks at the connections on the LP gas system soon after purchase and initial filling of LP tank; continued periodic checks of the system are recommended. Even though the manufacturer and dealer have already made tests for leakage, this check is advisable because of the vibrations encountered during travel. Apply a soapy water solution to the outside of gas piping connections to find gas leakage (bubbles). Do not use products that contain ammonia or chlorine. Usually, tightening of connections will be sufficient. If not, ask your authorized dealer service to make the needed repairs.

Liquefied Petroleum Gas (LPG) is heavier than air. Leaking gas tends to flow to low places, and will sometimes pocket in a low area. LP gas can usually be detected by an identifiable odor characteristic to garlic.

CAUTION

Never light a match or allow any open flame in the presence of leaking gas!

Be sure that the main LP gas supply valve is closed or galley panel switch OFF during refueling to prevent accidental ignition of gas fumes by appliance ignitors.

WARNING

When coach is to be stored in a confined area, turn off the LPG at the main tank shutoff valve or, more conveniently, at the galley systems control panel.

Your Wanderlodge has been provided with an automatic 80% fill valve to protect you from the dangers of an overfilled LPG tank.

Electrical Systems

Your coach has been engineered and checked for your complete electrical system safety. Circuit breakers and fuses are installed to protect electrical circuits from overloading. Before making modifications or additions to the electrical system, consult your dealer for assistance in obtaining a safe and secure installation.

Do not "jump" circuit protectors!

Emergency Stops

Always carry road flares and/or reflective triangular highway warning markers for emergency warning display. Pull off the roadway as far as possible when changing flats or for other emergency situations. Turn on your hazard warning flashers when parked alongside a roadway, even if only for a short while. Have your coach occupants leave the vehicle and stand clear of the area when parked on the edge of a highway.

In Case of Tire Blowout

Michelin Tire Corp. has tested extensively and recommends the following when a blowout occurs:

1. Quickly step on the gas.

2. Adjust steering as needed.
3. Stay off the brakes.
4. Keep driving until you find a safe place to pull over.

Engine Exhaust Gas

Avoid inhaling exhaust gases because they contain carbon monoxide, which by itself is colorless and odorless. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal. If at any time you suspect that any exhaust fumes are entering the passenger compartment, have the cause determined and corrected as soon as possible.

The best protection against carbon monoxide entry into the vehicle body is properly maintained engine exhaust system, body and ventilation system. It is a good practice to have the exhaust system and body inspected by a competent mechanic each time the vehicle is raised for lubrication or oil change. It should also be inspected whenever a change is noticed in the sound of the exhaust system and if the exhaust system, underbody or rear of the vehicle has been damaged.

To allow proper operation of the vehicle's ventilation system, keep ventilation inlets clear of snow, leaves, or other obstructions.

Sitting in a parked vehicle with the engine on for extended periods, without proper ventilation, is not recommended!

More Safety Considerations

- Sanitize fresh water supply system periodically.
- Prevent water connection fittings from contacting the ground or drain hose to reduce chances of contamination.
- Consider using a qualified technician for repairing gas or electrical appliances.
- Check fire extinguishers periodically for proper charge.
- Avoid overloading your vehicle.
- Be careful not to cause an improper load distribution which can adversely affect roadability.
- Insure that tires are in good condition and properly inflated at all times.
- Under-inflated tires overheat and are blowout-prone!
- Check and tighten wheel lug nuts; manufacturer recommends after first 50-100 miles and every 1,000 miles thereafter.

EMERGENCY EXITS

Sliding windows, which can be easily opened, may be used as an emergency exit. Squeeze the window latch and slide window open. Emergency exit windows are identified by an EXIT decal on the glass.

OWNER'S MANUAL REQUIREMENTS:

The minimum required educational information in the owner's manual shall include:

1. A sample of the weight label's contents affixed to the unit as appropriate.
2. An explanation of the following:
 - Vehicle weight distribution
 - How to weigh the vehicle
 - These definitions:
 - Gross Axle Weight Rating (GAWR)
 - Gross Combination Weight Rating (GCWR)
 - Gross Vehicle Weight Rating (GVWR)
 - Unloaded Vehicle Weight (UVW)
 - Net Carrying Capacity (NCC)
3. Towing guidelines.

MOTORHOME WEIGHT INFORMATION

Model _____

GVWR _____

UVW _____

NCC _____

GCWR _____

GVWR

(Gross Vehicle Weight Rating) means the maximum permissible weight of this motorhome. The GVWR is equal to or greater than the sum of the Unloaded Vehicle Weight plus the Net Carrying Capacity.

UVW

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

NCC

(Net Carrying Capacity) means the maximum weight of all occupants including the driver, personal belongings, food, fresh water, LP gas, tools, tongue weight of towed vehicle, dealer installed accessories, etc. that can be carried by this motorhome.

(NCC is equal to or less than GVWR minus UVW).

GCWR

(Gross Combination Weight Rating) means the value specified by the motorhome manufacturer as the maximum allowable loaded weight of this motorhome with its towed trailer or towed vehicle.

This motorhome is capable of carrying up to _____ gallons of fresh water (including water heater) for a total of _____ pounds. Reference: Weight of fresh water is 8.33 lbs./gal.; Weight of LP gas is 4.5 lbs./gal. (average).

**CONSULT WEIGHT DECAL LOCATED IN COACH
FOR ACTUAL WEIGHTS**

VEHICLE LOADING

The Federal Certification Label, located inside and above the driver's windshield between the sun visor mounting brackets describes the maximum weight-carrying capacities of your motor home and for each axle, respectively abbreviated by "GVWR" and "GAWR".

The Gross Vehicle Weight Rating (GVWR) is the maximum motor home weight allowable with all systems filled and with passengers and supplies aboard.

Each axle also has a maximum load-bearing capacity referred to as the Gross Axle Weight Rating (GAWR).

The load capacity is the difference between the GVWR and the actual weight. This means the total weight of all food, clothing, other supplies and passengers, must not permit the load capacity to be exceeded.

To find the actual weight, with the motor home fully loaded, drive to a scale and read the weight on the front and rear wheels, separately, to determine axle loading. The load on each axle should not exceed its GAWR. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.

When loading your motor home, store heavy gear first, keeping it on or as close to the floor as possible. Heavy items should be stored centrally to distribute the weight evenly between the front and the rear axles. Store only light objects on high shelves. Distribute weight to obtain even side-to-side balance of the loaded unit. Secure loose items to prevent weight shifts that could adversely affect the balance and roadability of the vehicle

COACH SERVICE-REPLACEMENT PARTS

A paint color label is located adjacent to the Federal Certification Label above the pilot's sun visor.

Data plates located on the rear of the chassis (raise rear engine compartment door for access) provide information useful for identifying your coach if you are planning on ordering parts. Identification plates provide information such as:

1. Body Serial Number
2. Model Year
3. Body Service Number
4. Chassis Serial Number
5. Chassis Service Number

ECONOMICAL DRIVING

How you drive, where you drive and when you drive — these factors all have an effect on determining how many miles you can get from a gallon of fuel. Careful maintenance will also contribute to fuel economy.

Frequent stops and starts during a trip diminish miles per gallon. Plan even short shopping trips so you can take advantage of through-streets to avoid the traffic lights. Pace your driving like the professional drivers to avoid unnecessary stops.

An idling engine also consumes fuel. If you are faced with more than a few minutes wait, and you are not in traffic, it may be advisable to shut off the engine and re-start later.

A properly lubricated vehicle means less friction between moving parts. Consult the maintenance schedules for proper lubricants, lubrication intervals and general coach maintenance scheduling.

Fuel economy is also related directly to the amount of work accomplished by the engine. Heavier loads require more power. Keep excess weight to a minimum.

CELLULAR PHONE WIRING

A roof mounted antenna and wiring (terminates in driver area) are supplied for cellular phone hookup.

FOG LIGHTS OR DRIVING LIGHTS

Clear fog or driving lamps are mounted stationary in the front bumper. The fog lamps illuminate only with low beam headlights or the driving lamps illuminate only with high beam headlights, provided the corresponding dash switch is activated.

TRAVELING IN YOUR MOTOR HOME

NOTES

1. Overall height is approximately 12 1/2 feet.
2. It is recommended that compartment doors be locked so they do not open while in transit. There are many modern recreational vehicle parks with good facilities, including State, County and Federal Parks, where electrical, water and sewer connections are readily available. Directories are published which describe these parks in detail and list available services and hookups.

On overnight or short weekend trips, your motor home has more than adequate holding tanks and water supply capacity in the event that campgrounds or parking sites are not equipped with these facilities.

On longer trips, where sewer connections and utility hookups are unavailable, it will be necessary to stop from time to time to dispose of holding tank wastes and replenish the water supply. Many gas stations (chain and individually-owned) have installed sanitary dumping stations for just this purpose.

When stopping for the night, park the coach in a location that is relatively level and where the ground is firm. This will ensure your comfort as well as the leveling of your refrigerator (for most efficient operation)

Making a long trip is not very different from making a weekend excursion since everything you need is right at hand and you are home wherever you travel. When packing for an extended trip, try to avoid taking non-essential items.

When planning to stay in the same location for several days, weeks, or even months, be sure to maintain the motor home level. Use leveling jacks system for this purpose.

Hook up to the water supply by attaching the water hose to the commercial water supply inlet.

Plug the electrical cable into the shoreline receptacle. Be sure to observe all grounding and connection precautions!

Connect sewage hookup into the disposal facility.

WINTER TRAVELING

- Certain precautions should be taken when traveling in your motor home during the cold winter months. Keep these suggestions in mind:
- Provide heat in the coach at all times.
- Have a plentiful supply of LPG and diesel.
- If your stay is longer than overnight, and you do not use the generator, try to have a shoreline hooked up to outside AC power.
- Minimize your use of electricity if 120 vac is unavailable.
- Leave cabinet doors and wardrobe doors slightly open at night to allow for proper air circulation.

Remember that low temperatures in combination with high winds will cause an equivalent chill temperature much below that indicated by your thermometer. For instance, with an outside temperature of zero degrees, and a wind velocity of 10 miles per hour, the equivalent chill temperature would be -20 degrees F!

There is no substitute for common sense when traveling in cold weather.

GENERAL STORAGE NOTES

Drawing draperies will reduce fading of rugs and upholstery. Leaving an air freshener agent will minimize odors from plastics and other materials. Slight opening of windows and vents will allow air circulation without worry of water entering. Covering wheels to eliminate direct rays of the sun on tires will reduce sidewall cracking.

NOTE

Remove all items from the coach which may freeze, including canned foods, miscellaneous liquids, etc. Remove all contents of the refrigerator/freezer, clean unit and leave doors ajar.

REPORTING SAFETY DEFECTS

If you believe your vehicle has a safety 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 Blue Bird Wanderlodge.

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 Blue Bird Wanderlodge.

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.

AIR CONDITIONING/ DEFROSTING SYSTEM OPERATION

ROOF AIR CONDITIONING

The ducted system includes (3) three 13,500 BTU air conditioning units with condensate drains.

Operation: *120 VAC is required from either generator or shoreline. The thermostat is located in the dinette area with remote temperature sensors located in the front and rear of the coach. Refer to the operator's manual in owner's kit for detailed operating instructions.

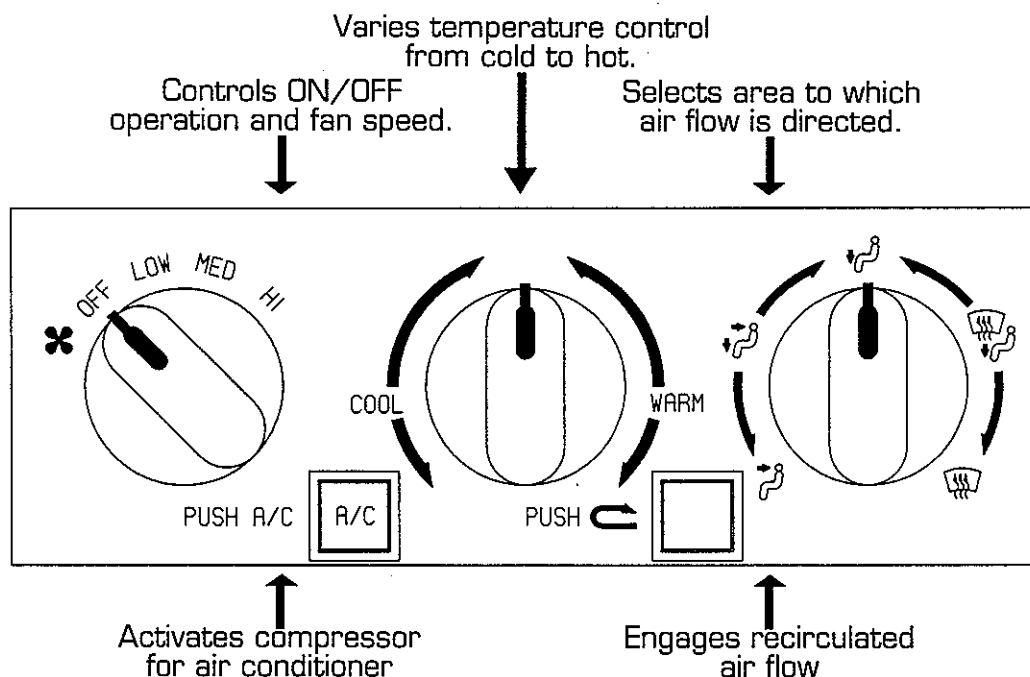
Refer to your Dometic "Comfort Control Center" manual for detailed operating instructions.

***NOTE:**

One air conditioner may be operated on the inverter.

CHASSIS AIR CONDITIONING

The 30,000 BTU system has an engine driven compressor. Automotive rotary style controls are located on the right hand side of the dash panel.



CAUTION

For proper defroster operation, do not block areas between defroster vents and windshield.

NOTE:

In hot weather, it is recommended to run the roof air units while traveling to help control the heat load inside the coach.

AIR PRESSURE SYSTEMS

INTRODUCTION

The air pressure system on your coach is supplied by an engine driven compressor. It provides pneumatic power for brakes, suspension, and numerous accessories. This complex, but efficient system is not intended to be totally leak free. After overnight parking, you may notice a significant loss of pressure on the air pressure front/rear gauge, or in systems connected to auxiliary air. This condition is normal, and in fact, our air leakage tolerance is tighter than most manufacturers within the heavy duty equipment industry. Once the engine is running, the engine driven compressor will quickly build up the system to the correct pressure.

AIR BRAKES

Your motor home is equipped with dual service air brake systems for front, rear and tag axle brakes, with integral fail/safe operation; and manual/automatic rear spring (parking) brakes. The service brakes are completely independent systems, each including a reservoir and separate distribution lines and valves. The reservoirs are pressurized from a single compressor. Both service brake systems are brought into operation each time the brake treadle is depressed to slow or stop the coach. Reservoir pressure for each service brake system is monitored by a respective pressure gauge on the front panel; system failure(s) are indicated by low pressure readings, illumination of the Low Air failure lamp and sounding of buzzer.

OPERATION

When the coach is parked, and the engine off, the rear spring brake will normally be set by operating the parking brake. The spring brakes cannot be fully released until the air pressure is above 65 psi. These brakes are in the released position when the control is pushed in. In the event that there is a loss of air pressure, the spring brakes will set automatically, at the brake-applied position, and will not release until the air reserve has again built up to required value. Consequently, there will be a normal delay, after the coach is first started, while the compressor builds up pressure before the brakes can be released and the coach driven. When the brake treadle is depressed, to slow or stop the coach, reservoir air is applied simultaneously to both front and rear service brakes to effect the braking action. The spring brakes are held in a released position by the air pressure supplied from the associated reservoir tank.

CAUTION

Do not attempt to drive the coach until system pressure is above 90 psi.

In addition, the coach has automatic tag axle lift capability. A switch on the arm rest panel (TAG LIFT) controls this function. When the switch is in the ENABLED position, the tag axle will lift when the speed of the coach reaches approximately 12 mph, thus permitting tighter turning radius. The tag axle will automatically be dropped when the coach speed reaches approximately 18 mph.

NOTE

The tag axle will not lift from the ground but air pressure is removed from the tag axle suspension thus removing load from the tag axle.

Refer to the manual in your owner's kit for additional information and maintenance instructions.

ADDITIONAL AIR-OPERATED EQUIPMENT

Besides providing the compressed air supply for the coach braking and suspension systems, the compressor also provides the air supply for the entry step, stepwell cover, tag axle, and waste dump system all via separately controlled solenoid switches operated from the dash, or at other locations throughout the coach. (This compressed air source is furnished from the front right side reservoir.) A compressed air outlet fitting and air gun are contained in a center storage compartment on the road side of the coach, convenient for inflating tires, and so on. A schrader valve (air connection) is available in the engine compartment to allow the air system to be pressurized from a "shop" source without the necessity of starting the engine.

AIR STEP SPEED ADJUSTMENT

The adjustments for the entrance step are located under the center portion of the step and are combined with sintered bronze exhaust filters. The extend adjustment is close to the center of step and the retract adjustment is to the rear.

To adjust the extend or retract function, loosen the lock nut (7/16" wrench) and turn adjustment with blade type screw driver as follows. To increase speed turn counter-clockwise. To decrease speed turn clockwise. When adjustment is complete tighten lock nut.

COMPRESSED AIR SYSTEM AIR DRYER

The air dryer unit collects and removes moisture and contaminants from the compressor air output before the air reaches the reservoirs. This unit is different from a reservoir drain or an after cooler in that it provides dry air for the brake system by eliminating the possible accumulation of condensate in the system reservoirs. Note that each reservoir also has a drain cock on the bottom for draining accumulated moisture. This assures a long maintenance-free life for air brake system components due to the removal of system contaminants.

APPLIANCES

INSTANT HOT

Provides an additional hot water source at the kitchen sink. Switch is located in the kitchen base cabinet. Operates from generator or shoreline.

ICE MAKER

The ice-maker, located in the kitchen base cabinet, is designed to provide a continuous automatic supply of ice cubes. It will operate unattended providing the water supply line is open and AC power is applied to the unit. The water supply cutoff valve is located under the kitchen sink. The AC power may be supplied from shoreline, generator or inverter.

OPERATION

1. Put the ON-OFF Switch, located behind the hole at the top of the front grill, in the ON position.
2. Open the water supply valve, located on the manifold distribution block.

The compressor will start. As soon as the ice maker mold reaches the proper temperature, the ice maker mechanism will fill the mold with water. The first cubes may be small because of air in the water line. Subsequent cubes will be of standard size. Approximate time for the first cycle is 45 minutes.

The following suggestions are made for best results.

- When the ice bucket is full, the ice making mechanism will shut off but the refrigeration system will continue to cycle to maintain the cube supply.

IMPORTANT

Never use an ice pick, knife, or other sharp instrument to separate cubes.

- During periods of limited usage or high ambient temperatures, it is common for cubes to fuse together. Ruffle cubes as needed.
- If ice maker is not used regularly, the ice bucket should be emptied periodically to ensure fresh cubes.
- It is normal for cubes to appear cloudy. This is nothing more than air being trapped in the water due to fast freezing. It has nothing to do with the health, taste or chemical make-up of the water. It is the same air that is in every glass of water you drink.
- To provide for higher ice rate (production of more cubes), adjust the temperature control to a warmer setting. If hollow cubes result, adjust temperature somewhat colder. For less cube production, adjust to a colder setting.

STORAGE

If the unit is to be stored or not used for extended periods, it will be necessary to drain the system of water.

1. Shut off water supply at the main water source.
2. Disconnect the water supply line from the solenoid valve.
3. Disconnect the water line from the solenoid valve outlet.
4. Allow the unit to run for an hour or more to drain all the water.
5. Dry out excess water from the ice maker assembly.
6. Prop the door open at least two inches.
7. Disconnect unit from main electrical power source.
8. Leave water supply line and power cord disconnected until ready to reuse.

NOTE

The use of anti-freeze or other products of this nature is not necessary and is not recommended.

REFRIGERATOR/FREEZER

See refrigerator operator's & owner's manuals (owner's package).

COOKTOP (RANGE)

The gas supply for the cooktop burners is provided from the LPG tank. The cooktop is equipped with a 12 VDC electric igniter. Refer to the manual in your owner's kit for detailed operating instructions.

MICRO/CONVECTION OVEN

The microwave/convection oven provides programmed microwave cooking, convection operation for crisp, even broiling, or a combination of both. (See the manual in your owner's kit for detailed operation and caution notes.) Operates from shoreline, generator, or inverter.

ELECTRIC GRILL

The electric grill is stored on a slide out tray in the curb side rear luggage compartment.

NOTE: Grill will not operate unless grill and tray are in the fully extended position.

To use the electric grill, pull on tray to release tension latches at rear of tray. Pull grill and tray to its fully extended position. Ensure that the electrical plug is secure in receptacle and all components of the electric grill are in correct position. Refer to instruction manual on appliance (supplied in coach) for important safeguard and general cooking tips.

AWNING OPERATION

A lift handle is furnished with the patio awnings in addition to the pull rod. This 6' aluminum handle may be used to lower/raise the rafter arm from/to locked position. For complete awning operation refer to **Zip Dee Owner's Manual**.

CAUTION

The patio awning is equipped with a manual lock at both ends of the awning. Before driving your coach, verify that both front and rear locks are properly engaged. Failure to lock both ends may allow the awning to unroll while in transit.

CAUTION

Be sure to raise patio awning high enough to clear the top of the entrance door.

CHASSIS SPECIFICATIONS

ACCELERATOR CONTROL

Electronic Accelerator with Transmission Computer Link Up for Precise Shifting.

AIR COMPRESSOR

16.5 CFM capacity @ 1250 RPM, Gear Driven

AIR RESERVOIR

Five tanks with 1760 cubic inch capacity and one tank with 1240 cubic inch capacity.

ALTERNATORS

12 Volt negative ground 300 amp

AXLES

14,600 # Front; 23,000 # Drive, Single Speed, 4.69 (Standard) Ratio; 13,000 # Tag; All Wheel Bearings Oil Lubricated.

BATTERY

Three 12 Volt, 925 cold cranking amps maintenance free batteries wired in parallel.

BRAKES, EMERGENCY

MGM 36" Magnum Piston Type Spring Brake System with Treadle Valve Control - Separate Instrument Panel Mounted Valve provided for parking.

BRAKES, ANTI-LOCK

A Bendix four-channel system which controls the steer and drive axle system along with a standalone single channel system for the tag axle.

CRUISE CONTROL

Combined with DDEC III Engine Control

DRIVE LINE

Spicer 1810 Series with Protective Guard Around Shaft

ELECTRICAL SYSTEM

12 Volt

ENGINE

Detroit Diesel Series 60, 500 HP at 2100 RPM

EXHAUST SYSTEM

16 Gauge Aluminized Steel with Heavy Duty Muffler (6 inch diameter - inlet & outlet)

FUEL FILTER

Racor Fuel Filter Water Separator and Preheater Secondary Filter at rear of engine

FRAME

Channel 10-1/8" high with 3-1/2" flanges made of 5/16" 50,000 PSI steel, section Modulus - 14.8 In.³ Channels doubled in high stress area - Section Modulus 40.9 In.³

FUEL TANK

300 gallon capacity

GROSS VEHICLE WEIGHT RATING

50,600 lbs. max.

HORN

Dual Electric and Dual Air with Selector Switch

OIL FILL & CHECK

Located at rear of engine on curb side.

SHOCK ABSORBERS

Direct acting, Double Action Piston Type; Front, Drive and Tag

STEERING GEAR

Ross Model TAS-85 with 23.3 to 1 ratio with Integral Power Steering and Tilt and Telescoping Steering Wheel.

SUSPENSION

Ridewell Air Suspension, 14,600 # Front, 23,000 # Drive and 13,000 # Tag. Front and Drive Systems Utilize 4 Air Springs Each, Tag System Utilizes 2 Air Springs.

TIRES

Tubeless 31580R22.5 16-Ply rating Michelin Steel Cord Radial with XZE

TURNING RADIUS

- * CURB RADIUS 35.3'
- ** WALL RADIUS 40.4'

- * Curb radius is the distance from the center of the turn to the outside edge of the front tire.
- ** Wall radius is the distance from the center of the turn to the outside edge of the front bumper.

NOTE

Turning Radii is with Standard 31580R22.5 tires

TIRE/WHEEL CHANGE PROCEDURE

The wheel/tire assemblies used on your motor home are heavy-duty truck-type. They are heavy and may be difficult to handle. If at all possible, changes should be accomplished by a service station equipped to handle truck equipment. However, if a situation arises where no service facilities are available, the following procedures may be used.

CAUTION

Severe injury or death may result. DO NOT use the leveling system for changing tires or working under the vehicle. Keep the rear wheels in firm contact with the ground with the parking brake set. With the leveling jacks extended, there is a possibility the vehicle may move either toward the front or the rear.

NOTE

Jack and lug wrench are not furnished with coach. An outside drive axle wheel may be used to replace front or tag wheel until permanent replacement can be made. Road speed must not exceed 40 MPH.

FRONT AXLE WHEELS

1. Drive motor home out of traffic lane onto a level surface capable of supporting jack.
2. Turn on hazard flasher and apply parking brakes before leaving coach.
3. Turn off ignition and set transmission selector to Neutral (N) position.
4. Remove white plastic wheel saver from road side rear luggage compartment.
5. Place wheel chocks against front and rear of tires on opposite side.
6. Place jack under axle and raise slightly until securely in place.

CAUTION

Bumpers are not designed for lifting and/or towing of the vehicle.

7. Pull off lug nut covers.
8. Install wheel saver.

NOTE

It is recommended that the wheel saver be used when loosening or torquing lug nuts.

9. Loosen lug nuts slightly, then jack up coach until tire is clear of ground. Solidly support the vehicle under the main frame rails with jack stands or blocks before working under or around the coach.

NOTE

Lug nuts on right side of coach are right hand threaded (turn counter-clockwise to loosen, clockwise to tighten); lug nuts on driver's side of coach are left hand threaded (turn clockwise to loosen, counter-clockwise to tighten).

10. Remove lug nuts and wheel assembly.
11. Install spare and replace lug nuts. Tighten progressively in the sequence shown on lug nut tightening sequence diagram, starting with #1 and proceeding to #10. Final torque will be 450 to 500 foot-pounds. Wheel must be on ground for final torque.
12. Snap front hub cover into front wheel opening after front lug nuts have been properly torqued.
13. Place lug nut covers on all lug nuts. Make certain that these nut covers fit snugly. This is accomplished by squeezing the dimpled sides together before installing.
14. Lower coach to ground and remove jack and handle.
15. Replace wheel saver, lug wrench, jack and handles in storage compartment and tie down to prevent road noise. Return damaged wheel/tire assembly to holder and have it repaired as soon as possible.
16. Remove and stow wheel chocks.
17. Turn off hazard flasher before returning to traffic.

DRIVE AXLE DUAL WHEELS

1. Repeat steps 1 through 10, front axle wheels.
2. Loosen inner lug nuts (studs with square heads), if inner wheel is to be replaced.
3. Remove outer lug nuts from the (5) studs which have lock rings and slide hub cover over remaining lug nuts.
4. Remove the (5) remaining lug nuts and wheel.
5. Remove inner lug nuts and inner wheel, if inner wheel is to be replaced.
6. Install replacement wheel and inner lug nuts. Tighten progressively, in the sequence shown on lug nut tightening diagram, starting with #1 and proceeding to #10. Final torque should be between 450 and 500 foot-pounds.
7. Install outer wheel (or replacement wheel) and lug nuts over inner lug nuts marked 1, 3, 7, 9 and 6. Torque nuts in the following sequence 1, 7, 6, 3 and 9 to between 450 and 500 foot pounds.
8. Install hub cover over the (5) lug nuts holding wheel to hub. Place lock rings and lug nuts on remaining inner lug nuts 10, 5, 2, 4 and 8.
9. Replace wheel saver.
10. Torque nuts in the following sequence 10, 2, 8, 5 and 4 to between 450 and 500 foot-pounds. Wheel must be on ground for final torque.
11. Return to step 13 of Front Axle Wheels and continue.

NOTE

When checking torque on dual wheels loosen all outside lug nuts. Check torque on inner lug nuts (studs with square heads) for torque value shown above then torque outer lug nuts to value shown above.

TAG AXLE WHEELS

1. Repeat steps 1 through 9, front axle wheels.
2. Remove lug nuts from the (5) studs which have lock rings and slide hub cover over remaining lug nuts.
3. Remove the (5) remaining lug nuts and wheel.
4. Install replacement wheel and lug nuts on studs marked 1, 3, 6, 7, and 9.
5. Torque nuts in the following sequence 1, 7, 6, 3 and 9 to between 450 and 500 foot pounds.
6. Install hub cover over the (5) lug nuts holding wheel to hub. Place lock rings and lug nuts on remaining studs 10, 5, 2, 4 and 8.
7. Replace wheel saver.
8. Torque nuts in the following sequence 10, 2, 8, 5 and 4 to between 450 and 500 foot pounds. Wheel must be on ground for final torque.
9. Return to step 13 of Front Axle Wheels and continue.

CAUTION

Check lug nuts for tightness every 1,000 miles. Lug nuts should be torqued to 450 to 500 foot-pounds.

TIRE INFLATION - TOWING - TRAILER

TIRE INFLATION

Under-inflation causes needless tire wear and promotes excessive fuel consumption. Check tire pressures on a regular basis.

The Federal Certification Label, shows the cold tire inflation pressures necessary to support the Gross Axle Weight Ratings.

These pressures can be reduced to greatly improve the ride quality after the actual axle weights have been determined (see Vehicle Loading in the Introduction Section).

The chart below is taken from the Michelin Tire Data Book and shows the recommended tire inflation pressures for various axle weights. If any axle weight is on the borderline, always use the higher pressure. Be sure weight is distributed evenly, side to side.

LOADS PER AXLE (lbs.) AT DIFFERENT PRESSURES										
2 TIRES: SINGLE (S) 4 TIRES: DUAL (D)										
INFLATIONS PRESSURE (psi)										
MICHELIN SIZE - 31580R22.5 MAX. SPEED - 65 MPH										
psi	70	75	80	85	90	95	100	105	110	115
lbs. S	10,800	11,430	12,090	12,810	13,350	13,990	14,620	15,260	15,900	16,540
D	18,700	19,800	20,950	22,950	23,460	24,580	25,850	26,830	28,200	29,540

In addition, a tire inflation information plate is located inside the road side luggage compartment near the air gauge and hose. These are normal pressures as long as the axle weights are not in excess of those shown.

TOWING

Two towing eyes are provided behind the upper part of the generator door. Remove generator panel for access.

CAUTION

Do not tow a vehicle equipped with Allison automatic transmission unless the drive shaft has been removed, or the rear wheels raised from the ground. Do not attempt to tow unit by front axle or crossmember. Damage to wiring and/or air lines can result because of proximity of these items to front crossmember. Do not tow with generator tray extended. Do not tow by the bumpers. Air pressure is required to release brakes.

TRAILER HITCH CAPACITY

The Receiver Type Hitch and Drawbar are rated for a 10,000 lb. maximum towing capacity and a 1,000 lb. maximum tongue weight capacity.

Standard equipment includes a 2" hitch ball with a 1" shank rated for a 5,000 lb. maximum towing capacity and 500 lb. maximum tongue weight. Hitch ball nut must be torqued to 200 ft. lb.

NOTE

For more towing capacity, we offer an optional 2 5/16" hitch ball with a 1 1/4" shank rated for a 10,000 lb. maximum towing capacity and 1,000 lb. maximum tongue weight. Hitch ball nut must be torqued to 200 ft. lb.

UPPER DASH PANEL

NOTE

Some items operate at all times, some require the 12 volt master (A/T switch) to be on, while others need the 12 volt master and the ignition on. Gauges marked with an * require the engine to be at normal operating temperature for correct readings.

***WATER TEMPERATURE**

Normal: 180 degrees to 210 degrees F
Monitors engine coolant temperature.

CAUTION

If the engine temperature gauge indicates excessively high temperatures, the engine may be overheating and should be stopped to prevent damage. Allow the engine to cool before checking the radiator coolant level.

***OIL TEMPERATURE**

Normal: 200 degrees to 250 degrees F
Gives a constant reading of the engine oil in the supply line from the pump. If the temperature goes over 250 degrees, the engine may be low on oil or there is overheating of the cooling system.

CAUTION

Your Wanderlodge is designed to operate at ambient temperatures up to 100 degrees F with no problems. If temperatures greater than 100 degrees F are encountered, the operator must closely observe engine water and oil temperature and transmission oil temperature to avoid overheating conditions. If overheating conditions occur at ambient temperatures less than 100 degrees F, the cooling system must be checked and problem corrected.

***OIL PRESSURE**

Normal: 50 to 70 psi at cruising speed, 5 psi minimum at idle, This gauge indicates the pressure of the oil, not the amount of oil in the engine reservoir.

CAUTION

No oil pressure, or low oil pressure readings (below 25 psi) when engine is operating at cruising speeds are trouble indications! DO NOT Operate the Engine Under These Conditions!

AIR PRESSURE FRONT/REAR

Normal: 110 to 135 psi

The Dual Air Service Brake Pressure systems are engine operated and supply independent brake system air pressure for front and rear service brakes and the parking brake. During normal operation, each air pressure gauge reading will build up to 110 psi to 135 psi shortly after the engine is started. Note that, as a safety feature, the parking brake cannot be released until air pressure readings are at least 65 psi.

FUEL LEVEL

Indicates the amount of diesel fuel remaining in the tank. Note that the generator also gets its fuel supply from this tank. The gauge reads only when the ignition switch is in ON position. As a precaution against generator operation draining the fuel supply, the generator fuel pickup is shorter than the engine pickup. Separate fuel filters are provided for each fuel line.

ALTERNATOR/CHARGER AMPS

Shows charging amps of alternator. When parked, with a source of 120 vac (shoreline or generator) the gauge will show a total output of the battery charger.

DC VOLTS COACH

Normal: 13.8 to 14.2 VDC.

Monitors the actual voltage at the coach batteries with the engine running.

DC VOLTS ENGINE

Registers the actual voltage at the engine batteries. With the engine running, gauge should read 13.8 to 14.2 VDC.

LOW FUEL

When this light comes on the operator should begin looking for a refueling station.

LOW AIR (LIGHT & BUZZER)

These warn the driver that there is an insufficient supply of air (65 psi or less) to properly operate the coach. If the air pressure is low, when the ignition key is turned on, the light and buzzer will come on immediately. Both warnings will continue until the air pressure is built back up, or the ignition key is turned off.

ACCESSORY

This blank position may be used for the installation of an additional switch for customer add-on equipment.

CAUTION

Use existing panel holes for installation of additional controls or indicators. Drilling new holes will destroy the electroluminescent lighting.

A/T

(Anti-Theft) deactivates the starting system for protection against unauthorized cranking and theft. This switch also provides 12V master switch operation to shut off 12V battery power to all circuits except digital clocks, radio memory, monitoring panel functions, refrigerator control system, and burglar alarm.

ENGINE ALARM

This red light with the word FIRE will come on when signaled by over temperature sensors in the engine compartment and will sound a buzzer.

HEADLIGHT ALERT

When the ignition switch is turned off while headlight switch is on, this warning light, along with a buzzer, will come on. These will remain on until the headlight switch is turned off or the ignition switch is turned back on.

LOWER DASH PANEL

NOTE

Some items operate at all times, some require the 12 volt master (A/T switch) to be on, while others need the 12 volt master and the ignition on. Gauges marked with an * require the engine to be at normal operating temperature for correct readings.

SPEEDOMETER

Indicates speed and accumulated mileage (odometer). This is a solid-state electronic monitor.

TACHOMETER/HOUR METER

Indicates actual engine RPM (Revolutions Per Minute) when scale (0-40) reading is multiplied by 100. Idle RPM should be 600 and full load (uphill) 2100 RPM. May go to 2425 RPM under no-load conditions (downhill). HOURMETER shows number of hours engine had been in operation.

TAG AXLE PRESSURE

Monitors the tag axle suspension pressure. Factory set at approximately 40 psi.

CAUTION

Before driving, check gauge to make sure there is pressure in the tag axle air bags. This is critical for proper coach axle weight distribution. Applying brakes with tag axle suspension not inflated will likely cause tire skid and "flat spotting".

TRANS. OIL TEMPERATURE

Indicates temperature of the transmission oil. If the WARNING LIGHT comes on reduce speed or load.

HIGH BEAM INDICATOR

The Blue Bird logo is illuminated when high beam is selected using steering column switch.

ACCESSORY WARNING LIGHTS

WATER IN FUEL

This light comes on when there is an excess of water in the bottom of the fuel tank.

SUSP. DUMP

Light comes on to indicate that the suspension system has little or no air, and that the suspension needs to be pressurized before the coach is driven. See Air Pressure System.

LEVEL WARNING

This light comes on when any of the four (4) leveling jacks are not fully retracted.

TURBO PYROMETER

Registers the temperature of the exhaust gas output of the Turbo. The correct temperature of the exhaust should be around 600 degrees F at power.

***TURBO BOOST**

Registers the pressure of the Turbo Compressor outlet. The gauge should read an approximate maximum of 30 psi at maximum power.

COMPARTMENT LOCK

Actuates (optional) electric locks on compartment doors. Doors may be opened with key or actuated from key pad by entrance door or compartment lock/unlock switch by entrance door.

MIRROR HEAT

This switch turns on a thermostatically controlled heater in the right and left outside mirrors (convex mirrors excluded). With the switch ON the mirror heaters will automatically come on to defog the mirrors.

ACCESSORY

These blank positions may be used for the installation of an additional switch and indicator light for customer add on equipment.

CAUTION

Use existing panel holes for installation of additional controls or indicators. Drilling new holes will destroy the electroluminescent lighting.

REAR PARKING

This switch controls the on-off operation of the rear parking lights (rectangular halogen lights on the rear of the coach) when transmission selector lever is in R. An indicator next to the switch lights when the rear parking lights are on.

HYDRONIC HEAT

The hydronic heat switch activates the diesel fueled portion of the Aqua-Hot heating system. Once activated, it takes approximately 30 seconds for the diesel burner to ignite. Allow 20-30 minutes for the system to reach operating temperature upon initial activation. The diesel fueled portion of the Aqua-Hot

system may not be required when moderate ambient temperatures exist and/or when there is a low demand for domestic water heat, as the electric heating element is capable of maintaining operative temperatures of 175 to 195 degrees Fahrenheit under these conditions.

GENERATOR AUXILIARY BATTERY

A two-position switch - OFF and momentary ON. The momentary on position connects the generator battery and coach batteries to aid in generator starting should this need arise.

LEFT LANDING

At the ON position this switch turns ON the landing lights on the left side. Note that a small green indicator lights when the lights are on.

RADAR MASTER

Turns on power to radar detector. The RADAR DETECTOR is a high-sensitivity superheterodyne microwave radar detector. This unit, is designed to activate when transmission are received from radar-type speed detection equipment.

NOTE

Because some states have ruled radar detection equipment illegal, it is the responsibility of the driver or owner to obey the appropriate laws. (There are quick-disconnect features provided which allow for easy removal of the unit.)

See Radar Detector Owner's Manual for additional instructions.

GEN AUTO START

Optional switch location for activating the generator auto start system. (See Optional Equipment Section.)

RIGHT LANDING

At the ON position this switch turns ON the landing lights on the right side. Note that a small green indicator lights when the lights are on.

DASH DIMMER

This control will only operate when the headlight switch is in the on position. The background lighting (electro-luminescent) for the dash can be dimmed by turning counter-clockwise and brightened by turning clockwise.

HEADLIGHTS

The Headlight switch serves two functions. Press P for parking lights and gauge illumination. Press the bulb symbol for headlights, parking lights and gauge illumination. The dimmer controls brightness of all gauges in dash. Turn counter-clockwise to increase or clockwise to decrease the brightness.

AISLE LIGHTS

This switch allows you to turn the aisle lights on or off from the pilot's chair.

LEFT TURN

When the turn signal lever is pulled down into the left turn position, this indicator flashes in conjunction with the outside directional lights.

The left cornering light will come on continuously if the headlights or the parking lights are turned on while the turn signal lever calls for a left turn.

FAN OVERRIDE

This switch operates the engine cooling fan in the engine compartment. Normally, this fan will operate at 125 to 400 RPM from an engine RPM of idle to 2100. If the coolant temperature reaches 195 degrees F, the fan will be thermostatically controlled to run at 1800 RPM. To override the thermostat, turn the fan override switch ON, and the engine cooling fan will turn 1800 RPM continuously at any temperature. The indicator light shows the fan override is engaged.

AUXILIARY BATTERY

A three-position switch — On, Off, and Momentary On. The Momentary On position connects chassis and coach batteries to aid in engine or generator starting should this need arise. The On position connects both sets of batteries to the battery charger and is primarily intended to maintain all batteries during long-term storage. The Off position is the normal position while the coach is in use either driving or parked.

SUSP. DUMP

Switch for main suspension air. See **Air Suspension System** for operation.

DOOR LOCK

Switch used to enable or override the top plunger lock on entrance door when coach is selected into gear.

AIR COMPRESSOR MASTER

This switch operates the auxiliary air compressor (optional equipment) which is a 120 vac operated back up air compressor. See **Optional Equipment** for additional information.

TAG LIFT ENABLE

Switch used to allow the tag axle to be raised below 15 mph for close quarter maneuvering or for added traction on drive wheels. Above 15 mph, the tag axle will be lowered and the tires will be set back on the ground, thus carrying the rated tag axle load.

HORN SELECTOR

Allows selection of the air or electric horns when the steering wheel horn button is depressed.

BACK UP ALARM

This switch, in the ON position, enables the back-up alarm buzzer when transmission selector is in R.

WIPER DELAY

Knob adjusts wiper speed from 2 to 20 sweeps per minute when intermittent operation is selected at steering column switch.

AUX. STEP

An ON-OFF switch when set to the EXTENDED position with the ignition off, activates a relay locking the outside entry step in the EXTENDED position. When the ignition is turned on, the entry step automatically extends when the door is opened and automatically retracts when the door is closed. The indicator reminds you that your switch is in the ON position.

HAZARD

This switch turns on the emergency flashers. When switch is used, both left and right turn signals will flash in unison.

THE HORN

See **Musical Horn** for operation.

RIGHT TURN

When the turn signal lever is pushed up into the right turn position this indicator flashes in conjunction with the outside directional lights. The right cornering light will come on continuously if the headlights or the parking lights are turned on while the turn signal lever calls for a right turn.

The indicator, along with the left turn indicator and all outside directional lights, flash in unison when the HAZARD switch is pressed to the ON position.

LO WASH FLUID

Light indicates when there is approximately 1/4 fluid level remaining in the fluid reservoir. See Windshield Washers for additional information.

UPPER RIGHT HAND DASH PANEL

LIGHTER

Depress to heat the element; pops out when hot.

DOOR LOCK

Switch used to lock and unlock the dead bolt lock on the entrance door.

COLD START

An ether injection system used to aid starting the engine in cold weather. To activate valve, depress switch for three seconds to fill valve then release switch to inject charge into engine. Allow three seconds before starting engine.

CAUTION

Use only for starting engine and inject just prior to cranking.

A/C HEAT CONTROLS

See Air Conditioning/Defrosting System Operation (Section 1-1)

LOWER RIGHT HAND DASH PANEL

IGNITION SWITCH

A four-position, standard-type key switch. In OFF position (center), ignition and accessory positions are disabled and the key can be inserted or removed. In ON position (right) the battery is connected to the engine-run ignition circuits (with A/T switch on) and the key can be advanced to START to start the engine, providing that the transmission selector is in neutral N position, and toggle switch in engine compartment is in FRONT position. The accessory position is not used.

SHIFTER & ARMREST PANEL

SHIFTER

This is the push button shift selector made available with the Allison Transmission Electronic Control (ATEC). See Transmission Section for detailed description.

CRUISE CONTROL

These three switches operate in the following manner: The switch on the left turns the cruise control on or off. The switch on the right locks the cruise control in on the desired cruising speed and permits resetting at a lower speed following a previous setting. The switch in the middle permits returning to cruising speed following disengagement by stopping and also permits obtaining a higher cruising speed.

NOTE

The coach must be traveling at least 35 MPH before the cruise control will operate properly.

When the desired speed is reached, press the ON-OFF switch to the On position, then press the Set-Coast switch to the Set position and hold for two seconds before releasing. The coach should automatically remain at that speed. If a lower cruise speed is desired, press the Set-Coast switch to the Coast position and hold until the desired cruising speed is obtained. Release the switch immediately. The coach should remain at the new speed.

Following disengagement of the cruise control by braking, the previously set cruising speed may be obtained by depressing the Resume-Accel switch to the Resume position for two seconds. Note that the coach should be at or above 35 MPH before attempting the Resume function. In addition, if the ignition switch has been turned off, the previous cruise speed will be erased from memory and the new cruise speed will be that speed when the Resume switch was pressed.

If a higher cruising speed is desired and the cruise is enabled, press the Resume-Accel switch to the Accel position. The coach will begin to accelerate. When the higher desired cruising speed is obtained, immediately release the Accel switch. The coach should remain at the new speed

NOTE

If retarder becomes activated, it will disable the cruise control.

MAP LIGHT

This switch controls On-Off operation of the reading lights above the driver.

CLEARANCE LIGHTS

This switch controls the operation of the clearance, identification and marker lights. The switch has three positions and each position has the following function. In the ON position the lights will remain lighted continuously. When the switch is in the middle (OFF) position, these lights are turned on by the headlight switch. The MOM OFF position is to flash lights as a courtesy signal when the headlight switch is ON.

FOG/DRIVING LIGHTS

Switches for fog lights or driving lights. Fog lights will only operate while headlights are on low beam. Driving lights will only operate with headlights on high beam.

ABS WARNING

Indicates (when lit) that the ABS system is being used.

DO NOT SHIFT

Indicates when a potential transmission damaging condition has been detected.

ENGINE RETARDER

The on/off switch enables the engine brake. An intensity switch is used to select two, four, or six cylinders to produce low, medium, or high braking power. The intensity switch outputs are connected to the ECM's digital input ports.

ENGINE MONITOR**ENGINE SHUTDOWN PROTECTION FEATURE**

The engine will shutdown within 30 seconds after the stop engine lamp illuminates. The engine will power down from 100% throttle to 70% throttle immediately. Power reduction will continue to reduce to 50%. The stop engine override switch can be used to reset the 30 second shutdown sequence (must be depressed prior to engine shutdown) with a maximum power of 50%. This shutdown protection feature will begin when limits of oil pressure, oil temperature, coolant level or coolant temperature are exceeded.

STOP ENGINE

Indicates when a potential engine damaging condition has been detected.

NOTE

If retarder becomes activated, it will disable the cruise control.

MAP LIGHT

This switch controls On-Off operation of the reading lights above the driver.

CLEARANCE LIGHTS

This switch controls the operation of the clearance, identification and marker lights. The switch has three positions and each position has the following function. In the ON position the lights will remain lighted continuously. When the switch is in the middle (OFF) position, these lights are turned on by the headlight switch. The MOM OFF position is to flash lights as a courtesy signal when the headlight switch is ON.

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STOP ENGINE

Indicates when a potential engine damaging condition has been detected.

LOW COOLANT

Indicates when a potential engine damaging condition has been detected.

STOP ENGINE OVERRIDE

This switch momentarily overrides DDEC engine shut-off system.

CHECK ENGINE

Indicates that a problem has occurred.

AC MASTER

These switches allow the driver to start or stop the roof air conditioners from the dash area while driving.

ELECTRIC MIRROR ADJUST

Each switch controls both left and right mirror heads. Rotate the switch either left for the left mirror or right for the right mirror. Pushing the switch knob to the left rotates the selected mirror to the left, pushing the switch knob to the right rotates the selected mirror to the right, pushing the switch knob up rotates the selected mirror up, and pushing the switch knob down rotates the selected mirror down. The two switches provided control the upper (flat) and lower (convex) section of each mirror, as marked. The mirrors also contain a heating element to help prevent fogging over in inclement weather. The switch for the heater element is located on the lower dash panel.

PILOT'S OVERHEAD

DASH PANEL

ENGINE PREHEAT

This switch engages the engine preheat pump in the Aqua-Hot heating unit, circulating the engine's coolant through the engine preheat loop, warming the engine for easy starting. Allow approximately 1-2 hours of engine preheating time (longer for colder ambient temperatures). The pump can be allowed to operate overnight if desired.

SUPPLEMENTAL HEAT

The Aqua Hot's engine preheating system acts as a supplemental heating source, in addition to the diesel burner and electric heating element. While traveling, the engine's heated coolant will automatically pass through the engine preheat loop, transferring heat into the Aqua Hot's heat tank. This feature reduces the total operating hours of the diesel heater.

NOTE:

Do not operate the engine preheat circulating pump while traveling.

WATER PUMP

Switch for "Demand" water pumps in fresh water system. Indicator light shows when pumps are enabled.

DASH DIMMER

This control will only operate when the headlight switch is in the on position. the background lighting (electro-luminescent) for the overhead dash can be dimmed by turning counter-clockwise and brightened by turning clockwise.

SPOTLIGHT

The roof-mounted remote-control high intensity spotlight is operated by the SPOTLIGHT controls. The spotlight produces 130,000 BCP (beam candle power) and can be turned on and off, positioned horizontally or vertically at an adjustable rate of speed, and can be used for spot- or flood-lighting. The following controls operate the spotlight:

SPOTLIGHT BEAM SELECTOR SWITCH

Depressing left side of switch turns on both lights in the FLOOD mode. Right side position selects SPOT mode. Center position is OFF.

SPOTLIGHT SPEED CONTROL

Adjusts speed of light head movement during aiming function.

DRIVER & CO-PILOT AREA

HORN

Operate the horn by pressing in on the center section of the wheel. Select air or electric horn with the HORN SELECTOR switch on the dash.

COMBINATION TURN SIGNAL/HIGH BEAM AND WASHER/WIPER SELECTOR

Push lever toward dash for right turn signal, pull lever away from dash for left turn signal. Pull lever up toward steering wheel and hold for momentary high beam. When lever is released, low beams are activated. Push lever back away from steering wheel to go to high beam operation. The washer ring is located at the end of the lever and when pushed, activates the windshield washer. To activate the wiper twist lever from -O- position to 1 or II for continuous speeds or to INT for intermittent operation. When in INT position the delay of the wipers can be changed by the wiper delay knob on the lower dash panel. Twist lever back to -O- position to turn wipers off. Ignition must be on to operate the wipers.

Check windshield washer reservoir fluid level periodically and use a prepared washer solution if possible. (Note that low reservoir levels are indicated by a dash monitor light.) During freezing weather, use a solution additive, or a solution specifically designed for cold weather usage. The washer reservoir is accessible through the front road side storage compartment.

TILT LEVER

Pull lever up to release lock mechanism. While holding lever up, adjust the steering wheel to a comfortable position and release lever. Move the steering wheel slightly to make sure the column locks into position.

CAUTION

Always make sure that the lever is in the fully locked position in whichever detent setting is used. Do not change the wheel tilt setting while the coach is in motion.

TELESCOPING STEERING WHEEL

To unlock the telescoping wheel, twist center section of steering wheel counter-clockwise and adjust wheel to comfortable position. While holding steering wheel at desired position with one hand, lock it into position by turning the center section of wheel clockwise.

PARKING BRAKE

The Parking Brake control is located under the lower dash, to the right of the steering column. Note that the parking brake cannot be released unless the system air pressure is at least 65 psi. Pull to set and push to release.

AIR HORN FOOT SWITCH

Operates highway horns. Located on the floor to the left of the steering column.

ACCELERATOR PEDAL

Controls engine fuel flow to select power output. See Diesel Engine Section for detailed description.

BRAKE PEDAL

The coach is equipped with a dual air brake system which includes independent systems for the front and rear service brakes. A separate reservoir and panel mounted pressure gauge is provided for each service brake system. Refer to Air Brake System Section.

SEAT CONTROLS

Electrically operated six-way seat adjustments are built into the pilot's and co-pilot's seats.

Three electric SEAT CONTROLS are used to control seat bench tilt, up-down and front-back seat movement. These seats may be rotated by a knob in the arm rest. A lever on the outboard side of seats controls back tilt. An additional switch controls lumbar support.

DEAD BOLT LOCK OPERATION, ENTRANCE DOOR

The entrance door has an automotive style two position catch. The second position is required for FMVSS certification. For maximum security and minimum wind noise be sure the door is fully closed. A dead bolt lock is also provided for your security, however it will only engage and retract if the door is fully closed. Should you inadvertently open the automotive latch with the dead bolt engaged, you will have to shut the door to retract the dead bolt.

Dead bolt can be activated from switches located on the upper right hand dash panel, the entrance door systems control panel, and the bedroom control panel.

KEYLESS ENTRY

A keypad is located adjacent to the entrance door. By entering a preset code the entrance door dead bolt is unlocked. This keyless entry system will also unlock the electric locks on the luggage compartment doors.

Your Wanderlodge Keyless Entry System permits the locking and unlocking of your entrance door (Electric Deadbolt Lock Only) and the electric luggage compartment door locks. Both of these door systems also have manual key locking and unlocking which will permit you to override the electrical locking system.

To unlock the entrance door - enter the five-digit combination code via the externally mounted keypad (the keypad will illuminate to aid visibility at night). Note: If more than five seconds elapse between button pushes, the system will time out, requiring that you start over. You will hear the electric solenoid engage and unlock the deadbolt immediately after you enter the fifth digit of your combination code.

To unlock the electric luggage compartment door locks - enter your code as described in the preceding paragraph and then within five seconds, depress the 3/4 button on the keypad. You will hear the electric solenoids engage and unlock the luggage compartment doors immediately after you depress the 3/4 button.

To lock both the entrance door and the electric luggage compartment door locks - depress simultaneously the 7/8 and 9/0 buttons on the keypad. You will hear the electric solenoids engage locking the entrance door and the luggage compartments.

In addition to using the combination supplied with your system, you may also program in a second code of your choice. This code must be five digits in length. Note: If for any reason the door lock module senses a loss of coach voltage, or you turn off the electronic master switch, this second code will be erased from memory and the factory pre-programmed code only will be active. To program a second combination code, enter your factory code as described in the section "to unlock the entrance door" and then within five seconds, depress the 1/2 button. Then, within five seconds of each other, depress five buttons in any sequence you choose. Wait six seconds before depressing any other button. Your system is now programmed for the second code. To erase the second code, enter your factory code and then depress the 1/2 button, wait six seconds, the code is now erased.

ELECTRICAL SYSTEMS

There are two interrelated electrical systems used in your motor home ... the 12 volt DC supply system; and the 120 volt AC supply system. The 12 volt DC system is divided into several branches, or zones, each functioning from the common 12 volt battery source. One branch provides the 12 volts required for the automotive starting, ignition and lighting systems; remaining branches supply those motor home circuits and appliances which require 12 volts DC for operation.

The 120 volt AC system includes those motor home appliances which require 120 volts for their operation, supplied from either the internal generator, or from the external 120 volt AC (or a split 240 volt AC) supply, via the shoreline hookup. The inverter will supply 120 volt power from the coach batteries to selected circuits.

12 VOLT DC SUPPLY SYSTEM

Wiring diagrams of the 12 volt supply and distribution system are included in the Illustrations and Diagrams Section.

The 12 volts supplied to all motor home appliances, outlets and accessories is routed from the batteries through a main 12 volt master switch (A/T) and routed through buses to the individual branches, or zones, that are serviced from this supply. Circuit breakers are located behind the co-pilot's overhead compartment, lower front load center and at each of the zones. The circuits supplied and fuse or circuit breaker protection at each zone are shown on the diagrams.

COACH BATTERIES

Four (4) 12 volt Marine/RV Deep Cycle batteries are located on a roll-out tray in the "tag axle" compartment on the curb side and two (2) batteries are located in the engine compartment. These will provide 10.0 hours of operation, at a 50 ampere rate, when a charging source is not available.

NOTE

Roll-out tray is retained in stored position by a quick release pin with button on top. Be sure to reinstall pin after battery service.

BATTERY CHARGING

The 12 volt coach battery supply, is maintained fully-charged by either the engine alternator (when engine operates); or by battery charger. The engine battery system is normally charged by the alternator only. The coach and engine battery systems are separated by a relay to prevent deterioration of voltage in the event of one or the other supplies becoming defective.

In the event of a failure of either battery system, the systems may be tied together through the above relay by the aux. battery switch on lower dash. The momentary position of the switch should be used for cranking engine. The ON position should only be used for charging engine batteries by the battery

chargers.

Batteries can become discharged because of coach 12 volt loads, while parked, without a 120 volt AC source. For overnight stops this presents no problem, with judicious use of 12 volt service, because the engine alternators will recharge the batteries rapidly during the next day's travel. When operating from shoreline or generator power, the batteries obtain the major portion of the charge during "sleeping" time, while coach loads are low, so that the battery charger can "top off" the batteries.

If it is planned to leave the coach parked without exterior power for two days or longer turn off the Electronic Master switch (in addition to the A/T) located in the pilot's front over head cabinet. This will ensure that there is no drain from the circuits which remain on when the A/T switch is Off (clock, memory and LPG leak detector).

While in transit, the DC volts gauges on the upper dash panel should reflect an alternator regulated setting of 14 volts (+ 0.5). When parked, with 120 volt source supplied, the DC VOLTS COACH gauge should read between 12.5 and 14.0 volts depending upon load. When parked, without 120 volt source, do not permit voltage to drop below 11.5

After a trip, ALTERNATOR/CHARGER AMPS ammeter may show some discharge reading, even when 120 volt source is supplied, if there is a load on the 12 volt coach circuits. The Float type battery charger operates in the 13 - 14 volt range when there is a load.

AC SUPPLY SYSTEM

Motor home AC-operated appliances are supplied from either an external shoreline hookup or from the on-board generator. Selection of shoreline or generator power source is determined automatically by a remote changeover switch located in left center road side compartment above cable storage shelf. The 120 VAC circuits are normally supplied by the shoreline power cable. Whenever the generator is started, the automatic changeover switch will detect the generator voltage and will switch to the generator in approximately 25 seconds.

CAUTION

Use of excessively long and improperly rated extension cords may cause your auto changeover system to fail prematurely.

If you must use an extension cord, follow these guidelines:

- for 30 amp receptacles: **USE 10 GAUGE WIRE**
- for 50 amp receptacles: **USE 6 GAUGE WIRE**

CAUTION

After connecting to shoreline power, check your AC voltage gauges and make sure they show at least 110 volts present on the system. If not, disconnect immediately or you will cause premature failure of your auto changeover.

NOTE

Occasionally you may hear a slight humming or buzzing noise coming from the vicinity of your auto changeover or relay contractor box. This is completely normal behavior.

POWER LINE MONITORS

Dual power line monitors are located on the co-pilot over head dash panel, to monitor the voltage and amperage in both legs of the AC shoreline supply (or generator supply). The monitors have a polarity and ground detector circuit to indicate possible electrical hazards due to incorrect hookups.

An additional power line polarity monitor is located in the shoreline/utility box. Refer to **Shoreline Operation Section**.

AC CIRCUIT BREAKER AND DISTRIBUTION PANEL

The main AC Distribution Panel is located in the bedroom behind the mirrored door on the curb side.

CELLULAR PHONE WIRING

A roof mounted antenna and wiring (terminates in driver area) are supplied for cellular phone hook up.

INVERTER

Two 3000 watt Trace 3000 inverters with integral battery chargers are located in the right hand rear compartment. The inverters will power all accessible outlets in the coach as well as the ice maker, televisions, microwave oven, opera light, and 120 volt fluorescent lights as long as the power demand is below 6000 watts. There are two remote control panels for control and status of the inverters located on the wall adjacent to pilot seat.

NOTE: Two air conditioners are wired to the inverter circuit. However, only one will be permitted to operate at a time.

GENERATOR AUTO-START OPERATION

The auto-start system is comprised of two switches, a system board, a 120 VAC voltage monitor, and a generator flywheel sensing element.

The auto-start system monitors both DC and AC voltages. With the auto-start enable switch ON, DC and AC voltages are monitored. The AC switch has two positions: (1) low AC volts, and (2) no AC volts. With the AC switch in the low AC volts position, the generator will crank if the voltage is between 60 VAC and 105 VAC. If the AC voltage drops below 60 VAC, the generator will not crank.

With the switch in the no AC volts position, the generator will crank at voltages less than 105 VAC.

The DC voltage set point is 11.25 VDC. If the DC voltage drops below 11.25 VDC, the generator will crank.

WARNING

Be sure the auto-start enable switch is OFF prior to rolling out the generator tray for maintenance or fluid checks.

LOAD MANAGEMENT

There are five important 12v system gauges located in the driver's area which, if properly understood and occasionally monitored, will ensure proper operation and prevent an inconvenient and possibly damaging situation of discharged batteries.

On the upper dash are:

- Engine volt gauge for three engine batteries.
- Coach volt gauge for four coach batteries. Proper charger operation while parked will keep batteries between 12.5 and 14.0 volts depending on load.
- Alternator/charger Amp gauge shows alternator output while driving or charger output while parked with 120 VAC service from shoreline or generator.

On the overhead dash are:

- DC amperage gauge (labeled CHARGE) shows net output from the battery charger or alternators to the batteries.
- DC amperage gauge (labeled COACH LOAD) shows the amount of 12v current being consumed by coach systems.

The sum of these two readings should approximate the alt/charger amp reading. Be sure, with load management techniques, that coach load does not exceed charger capacity. This is easily determined by ensuring; (1) DC amperage (charge) gauge shows positive reading, and (2) upper dash coach volt gauge does not drop below 11.5 volts. Should battery voltage fall below this range, remember:

1. The auxiliary battery switch on lower dash may be helpful in starting the engine or the generator as needed.
2. **Battery voltage below 9v will damage fluorescent light bulbs and possibly the light ballast. Turn off fluorescent lights with low battery voltage!**

STORING THE COACH

If you plan to store your coach without 120 v power for (2) days or longer, be sure to turn off your master (A/T) switch, the electronic master and inverter at both shifter panel and inverter switches. Your objective is to minimize power drain.

With both masters off, you can still expect a battery discharge of 2-4 amps because of non-mastered circuits to refrigerator, and engine/transmission control circuits.

For storage over a (3) week time period, disconnect your batteries if there is no shore power available for the battery charger. The best storage technique is to turn off both master switches, turn off the inverter at both switch locations and run your battery charger 24 hours per week. This procedure will keep batteries up but avoid a damaging overcharge condition.

NOTE: Do not attempt to charge the batteries or start the coach with the battery disconnect switch OFF! The charger will output detrimental AC ripple voltage which could cause damage to RVDC electronics!

ENGINE, DIESEL

IMPORTANT

Always consult your Detroit Diesel and Allison owners and operators guides before operating vehicle. These manuals and ATEC and DDEC III diagnostic code cards are furnished in your owner/operator kit.

NOTE: In the event your Detroit Diesel Engine service technician must use a diagnostic reader to perform tests on the engine computer, access to the diagnostic connector may be obtained by removing the driver's auxiliary control panel (the one with the remote mirror adjust switches) from the front of the shifter box. The diagnostic connector is attached to the side approximately six to ten inches from the front.

TO START ENGINE

Detroit diesel Engines will start at temperatures above 10 degrees F (-12° C) without using a starting aid. However, for cold temperatures it will be helpful to activate the engine block heater (120 volt AC-operated). The ENGINE BLOCK HEATER is controlled by a switch located in the kitchen base cabinet. Remember to turn the switch OFF after starting. Refer to Detroit Diesel Manual in your owner's kit for starting instructions.

When outside temperature is below 35 degrees F (+2° C), turn on ignition switch for a minimum of 10 minutes, so Racor fuel filter heater element can warm the fuel, before starting engine.

1. As soon as the engine starts, reduce engine speed to low idle. After normal oil pressure is indicated, HIGH IDLE may be used to build up air pressure more rapidly.
2. Do not apply a load to the engine or increase engine speed until oil pressure gauge indicates normal.
3. Operate the engine at low load until all systems reach operating temperatures. Check all gauges during warmup period.

REMOTE ENGINE STARTING

Because it may sometimes be necessary to start the diesel engine remotely, a separate key switch is located on the right side of the engine compartment. Be sure the hinged switch cover is snapped back in place after key withdrawal to prevent moisture damage. Toggle switch must be down (REAR) to start from engine compartment.

FUEL FILTERS

A Racor fuel filter/water separator is incorporated in the diesel fuel supply line and processes the fuel supply for maximum purity. It is located on the curb side of the engine compartment.

The fuel filter/water separator includes a built in Racor in-filter disc pre-heater, which operates automatically below 35° F, (+2° C), when ignition switch is on, from the 12 volt DC battery supply, and a water sensor, which lights a dash indicator and sounds a buzzer when the water level in the bowl is high enough to require drainage. (See Racor Manual for additional information.)

When fuel vacuum gauge goes over 10 inches HG vacuum, replace element with WL P/N 3831310 (Racor 2020SM); also gasket (large) WL P/N 3747359 (Racor 11007), T-Handle WL P/N 3747342 (Racor) 11350)

A secondary fuel filter is located on the rear of the engine. This element is WL P/N 6082390 (AC TP916D)

OIL FILTER

Oil filter is located under engine on road side. It should be replaced at each oil change. WL P/N 6082408 (AC PF2100)

COOLANT

Open rear engine door and check coolant level (with engine cool and off). Fill with coolant mixture to the top of the surge tank sight glass.

Coolant Specification:

50% water, 50% low silicate ethylene glycol base antifreeze (formulation standard GM 6038-M)

Coolant Additive:

NALCOOL 2000

Coolant Filter

WL P/N 6082416 Detroit Diesel 23507545

ENGINE COOLING SYSTEM REFILL

Use of low silicate ethylene glycol base antifreeze (formulation standard GM 6038-M) is recommended for summer or winter operation because of its corrosion inhibition and lubrication properties. A 50-50 solution of antifreeze and water is preferred and it gives freeze protection to about 30° F below zero. Ultimate protection is attained at 68% antifreeze (about 92° F below zero) a higher concentration of antifreeze should never be used.

The approximate (dry) cooling system capacity is 100 quarts.

The system requires 12.5 gallons of antifreeze for a 50% solution or 17 gallons for a 68% mixture. Final solution should always be tested with a thermo-hydrometer or equivalently reliable testing device to determine actual protection.

If it becomes necessary to completely refill the chassis coolant system, the following procedure must be followed. Pure antifreeze can be used initially until prescribed amount has been installed, and then water for final filling.

1. Fill the engine, radiator, and engine hoses. Locate and close the manual gate valves separating the engine from the heater system. Pressure and return gate valves are located at the engine. Remove the radiator surge tank cap and fill to the top. Replace cap and run engine @ 1500 to 1800 RPM for one minute to purge air from the engine water jacket. Shut off engine; carefully remove the radiator surge tank cap; refill and replace the cap.

CAUTION

Use extreme care at all times when removing the radiator surge tank cap as hot coolant under pressure can cause injury.

2. Fill the heater system. An air bleeder valve for the front heater is located behind the exterior front access panel on the right side. Leave the return line gate valve, located at lower left side of engine, closed and open the pressure line valve, by hydraulic reservoir. Move the Front Heat Selector to the warm position. Using suitable containers to catch coolant, open the bleeder valve at front heater and remove hose from return valve and run the engine at 1,800 RPM until a steady flow of coolant passes through the front bleeder valve and open hose at rear.

The radiator must be refilled often during this time as coolant from the engine will be filling the heater lines. When steady flow is attained, close pressure valve and reconnect return hose. Open both valves allowing coolant to flow back into the engine. Shut off engine. Refill radiator using coolant caught from bleeding operation and add coolant as necessary. Restart engine and run at 1800 RPM for at least two minutes to complete system purge. Test heater blowers to make sure heaters are filled with hot coolant.

Allow engine and radiator to cool. Remove cap and fill radiator surge tank to the top of sight glass. Replace cap - refill procedure is completed.

BATTERY MAINTENANCE

Your motor home is equipped with separate engine and coach battery systems for greater assurance that there will be sufficient voltage to crank the motor home engine.

Three engine batteries are located in the engine compartment on the curb side. Those located in the curb side "tag axle" compartment are used for coach loads.

The coach batteries are charged from either the alternator or battery chargers. The engine batteries are charged from only the alternator (unless the auxiliary battery switch is in the ON position which permits the engine batteries to be charged by the battery chargers.) In order for the battery chargers to operate, either the generator must be running or the coach must be connected to a shoreline supply.

To make sure that the batteries are always ready for use, periodically check and charge as necessary.

A dirty battery may eventually dissipate its charge through conductive surface contamination. Clean battery top surface with a damp cloth and dry thoroughly. Check that battery terminals and associated battery jumper terminals are tight and free of corrosion. To clean terminals, neutralize corrosive deposits with a solution of baking soda, rinse with clear water, and dry. Note that commercial type spray-on battery cleaners are available at automotive supply stores. Use as directed to keep the batteries clean. Spray-on cable and terminal protective coatings are also available, easy to use, and effective.

CAUTION

Avoid sparking of any form in the vicinity of the batteries.

CAUTION

Do not wear metal rings, watches or jewelry when working on or near the batteries, cables, solenoids, or chassis wiring. These can short out electrical wiring and cause injury.

BATTERY STORAGE IN FREEZING WEATHER

Batteries that are not kept full-charged must be given protection against freezing. Partially-charged batteries will freeze at low temperatures, so batteries must either be left charged or removed from the vehicle and stored in a warm location.

The motor home can be left connected to the shoreline AC supply and the coach battery chargers will keep the coach batteries charged. Note that even in a warm location is advisable to keep the batteries charged to prevent deterioration. The engine batteries are the sealed type and require no electrolyte service.

Coat Battery terminals with lubricant or protective coating.

BULK OIL FILL

The bulk oil fill system provides a convenient means of replenishing the oil supply during an oil change and for adding oil between changes. There is no need to use valuable storage space for bottles of oil, etc.

An oil storage tank (with approximate 20 quart capacity) is located at the rear on the right side of the engine compartment. When this is pressurized from the air supply, oil can flow through the nozzle directly into the engine crankcase return oil passage. A meter is provided to measure quantity by means of quart and gallon pointers for each individual fill and a totalizer to show all oil added to date. This is a handy way to keep track of oil consumption, etc.

WARNING

Bulk oil system is under pressure when the red light is illuminated. Do not open the filler cap before making sure the bulk oil switch is turned off (red light off). Open the filler cap slowly to allow any pressure in the tank to bleed off before removing the cap completely.

OPERATION

1. Run engine, if necessary, to build up on board air supply.
2. Shut down engine.

CAUTION

Do not run engine while bulk oil fill is in use. Place engine compartment ignition switch in OFF or REAR to prevent starting from the driver's area.

3. Zero meter pointers.
4. Turn on bulk oil switch.
5. Observe that bulk oil red light is on.
6. Push nozzle tab lock out of the way and depress lever until desired amount of oil is shown by meter pointers.
7. Turn off bulk oil switch.
8. Check oil level.

FANS, VENT & EXHAUST

KOOL-O-MATIC FAN

12 VDC power ventilator located in the kitchen.

OPERATION

1. Open inlet dampers on fan.
2. Be sure windows are open to provide proper air flow cooling and ventilation.
3. The heat-cool thermostat located in the kitchen activates the fan. The selector switch (at the bottom) must be moved to COOL and the temperature lever set so the fan will operate. The fan will then start automatically whenever the temperature rises above the desired level.
4. Thermostat on fan position will run all the time.

FANTASTIC FAN

12 VDC exhaust fan located in the bathroom.

OPERATION

1. Open damper from control located on the face of the vanity.
2. Turn on fan from control located on the fan. Set desired speed. Switch on fan may be left on in order for the vanity (remote) switch to operate all functions.

FRESH WATER SYSTEM

WATER SUPPLY AND DISTRIBUTION SYSTEM

The dual purpose Tank Water Fill/Commercial Water inlet connection is located in the road side holding tank compartment. The Tank Fill On-Off switch located in the same compartment, diverts the commercial water input to fill the pure water storage tanks, located in outside compartments. System water pressure is provided by water pumps located in the road side center luggage compartment, rather than by tank pressurization. A bacteriostatic water purifier system purifies all the water supplied to the coach.

COMMERCIAL WATER HOOKUP

When facilities are available, the Commercial Water hookup can be used to supply all coach water system requirements. In this manner, the coach water tank and pump system are automatically bypassed and water pressure is developed by the external connection. Water inlet pressure is regulated to 40-psi maximum, by a valve which is part of the city (commercial) water fill.

FILLING THE TANK - STANDARD CAPACITY APPROX. 120 GALLONS

To fill the water supply tank, connect the water hose to the commercial water inlet, set Tank Fill switch to ON, then turn on the water supply. When tank is full, the level switch in the tank will close the tank fill solenoid. Set the Tank Fill switch to OFF position, shut off the water supply and disconnect the hose. At this time, check that the Monitor panel readout indicates a full water tank. To check, press the Pure tank switch and observe that the E through F indicator segments are lit.

NOTE

The Tank Fill switch should be ON only when the water tank is being filled. This switch must be in OFF position at all other times.

SANITIZING THE WATER SYSTEM

Water system sanitizing procedures should be followed before the system is used for the first time, after long idle periods, where water may become stagnant; or after any suspected contamination of the water supply. Whenever possible, use a commercially approved tank sanitizer and follow the procedures on the product package. If it is not possible to use a commercial product, prepare your own mixture and sanitize the tank in accordance with the following procedures:

1. **Empty the Water Tanks** - To drain tanks, open the 2 inch Cold Water Drain Valve behind door in road side holding tank compartment. After tanks are completely drained, close Cold Water Drain.

2. **Prepare the sanitizing solution** - using 1/4 cup of household bleach (sodium hypochlorite solution) for each gallon of water. Use one gallon of the solution for each 15 gallons of tank capacity. This procedure will result in a residual chlorine concentration of 50 ppm in the water system. If a 100 ppm concentration is required use 1/2 cup of household bleach with one gallon water to prepare the chlorine solution. Nine to ten gallons of solution will be adequate for the tanks. (Approx. 120 Gallons).
3. **Add sanitizing solution to water tanks** - Remove 1-1/4" plug/connector from top of small tank in curb side luggage compartment and pour solution into tank. Reinstall plug/connector in tank.
4. **Fill tanks to capacity** - Connect hose to the commercial water inlet, turn on the Tank Fill Switch and fill water tanks completely. Shut off hose, and turn off Tank Fill switch. Turn on the water pumps Open each faucet (hot and cold) and run the water until a distinct odor of chlorine can be detected. Shut off the water pumps.
5. **Allow the system to stand** - for at least 4 hours when disinfecting with 50 ppm residual chlorine. If a shorter time period is desired, then a 100 ppm chlorine concentration should be permitted to stand in the system for at least 1 hour.
6. **Drain tanks** - Open the Cold Water Drain valve and allow the tank to drain completely.
7. **Refill tanks** - Close the Cold Water Drain valve and turn on the water supply to the commercial water inlet, turn on Tank Fill switch and fill tank completely. When the tanks are full, turn off Tank Fill switch, shut off water supply and disconnect hose, replace fill cap and turn on water pumps. When water flows from opened faucets, close them and open other faucets until water flows. This flushes the system, removing trapped air from the piping and ensures that the fresh water supply is ready for use.

CAUTION

Do not permit sanitizing or antifreeze solutions to enter water purifier.

8. Repeat steps 6. & 7. until chlorine smell and taste are no longer present at faucets.

PURIFIER REPLACEMENT

Depending upon the condition of the municipal water used, the filter media will normally process 75,000 gallons of water before the purifier will need to be replaced. For the majority of "Wanderers" this means there will be at least five years of useful life. The only practical way to determine when replacement is required is to go by the sense of taste. If a faint taste of chlorine is detected, it is time for a change. Even when there is a noticeable taste, the bacteria stopping properties have not been compromised.

AIR ACCUMULATOR

An accumulator in the water system will smooth out the water flow, and eliminates water hammer and pulsations from the water pump. This accumulator has a diaphragm which separates the air on top from the water so it will not become "water logged."

WATER HEATER

With the Aqua-Hot at operating temperature, the domestic water is automatically heated as it is being used. Open any hot water faucet and a continuous supply of domestic hot water will be present within a few seconds. This is accomplished by the Aqua-Hot's domestic hot water loop which is an integral part of the heating system. A mixer valve has been installed to assure that excessively hot water does not flow to the faucets.

CAUTION

The mixer valve is not an anti-scald device. Always exercise reasonable caution when using hot water.

CAUTION

Do not turn Aqua-Hot unit off if outside temperature is 32 degrees or lower when potable water system is not drained.

WATER PUMPS

The water pumps, located in the road side luggage compartment, are equipped with a factory-calibrated pressure control switch which is preset to turn the pumps on when the system pressure falls below 25 psi; and turn the pumps off when the pressure reaches 40 psi. If the pumps have been out of service for a period of time, it is advisable to open a faucet before turning them on. When water flows steadily from the opened faucet, close faucet and observe that the pumps shut off when system becomes pressurized (It may also be necessary to bleed the air from the other faucets as well.) When the potable water supply tank level is low, or empty, shut the pumps off to prevent possible damage to the pump motors.. In addition to integral motor overload protection, the pump mechanisms are also protected from damage by the presence of a filter at each water pump inlet. These filters should be cleaned periodically.

Under normal usage, the water pumps should require no periodic maintenance other than ensuring that the input water supply is properly filtered of particles that could damage the pump mechanisms. Pump failures can generally be tied in to the plumbing system, or to electrical wiring. If a pump fails to operate properly, refer to the general troubleshooting guide. Note that detailed pump repairs and overhaul should be performed by a qualified repair facility.

WATER PUMP SWITCH

The central control switch for the water pumps is in the bathroom and has three settings. For a longer interval between water pump maintenance, select either "Pump A" or "Pump B". When one pump fails, the other pump can be used as a backup. For a higher flow rate, select "Pumps A & B".

The associated indicator is lit whenever power is being supplied to the pumps. Turning ON a switch pressurizes the water system, with the pumps operating on demand to maintain constant pressure. Continuous or erratic pump operation can indicate an empty water tank, system leakage, or air lock in the water lines. Switches enabling the water pumps are located in the bathroom, in kitchen and dash area.

MANIFOLD

All cold and hot water is directed to the distribution manifold. Hot and cold water is distributed to each fixture via individual 3/8" I.D. lines. Individual shut-offs, located on the manifold, will shut off water to any fixture in the coach.

WATER PUMP TROUBLESHOOTING GUIDE**Symptom:**

Possible Cause:

Corrective Action:

Pumps operate but no water flows through faucet

Low water level in tank.

Add water.

Suction lines or filters clogged.

Clear water lines and clean filters.

Kink in water suction hose.

Check water hose connections to tank and straighten or replace, as necessary.

Air leak in suction line.

Replace suction line.

Defective water pump.

Replace diaphragm or jammed check valve.

(See Flojet's service instructions).

Pump cycles on and off when faucets are closed:

Water leak in plumbing.

Check for signs of leakage and tighten or replace fittings, pipe, etc.

Defective toilet flush valve.

Repair flush valve.

Defective water pump.

Replace upper housing.

(See Flojet's service instructions).

Pump operates roughly and has excessive noise and vibration:

Intake line is restricted, kink in suction hose or fittings are too small.

Check input hoses and straighten or replace, as necessary

Defective water pump.

Replace lower housing.

(See Flojet's service instructions)

Pump fails to start when faucet is opened:

Clogged pressure piping.

Blow out water lines with compressed air.

No voltage to pump.

Check input wiring circuit breaker and switches.

Defective water pump.

Replace upper housing or check valve.

(See Flojet's service instructions).

Pump gives low water pressure and flow:

Defective water pump.

Replace diaphragm or motor.

(See Flojet's service instructions).

WINTERIZING

If you are planning on storing your motor home in an unheated area during cold weather, it will be necessary to winterize the water system to prevent damage from freezing conditions. Winterizing procedures are covered in the following paragraphs.

DRAINING AND WINTERIZING THE FRESH WATER SUPPLY SYSTEM

The following procedures show the use of the various drain valves, controls and pressurized air system to remove the water from the plumbing and appliances in the fresh water supply system.

1. Open the main circuit breaker box and turn off the Water Heater and Instant Hot circuit breakers.
2. Turn on Water Pump switch and open all faucets (galley sink, lavatory, shower, outside hose connection and toilet water valve - after depressing pedal insert block to maintain position). Note that the outside water faucet should always be left open when freezing temperatures are expected. Also remove drain plugs at rear of toilet and at bottom of Instant Hot. Refer to the Ice-Maker and Toilet Manuals for winterizing these units..
3. Open Cold and Hot Water Drain valves located in driver side rear luggage compartment. Open 2" water tank drain valve in road side holding tank compartment.
4. Allow water to drain completely before proceeding to the next step.
5. Close both Cold Water Drains, and water tank drain valve.
6. Turn ON Water Purge Air Pressure switch to activate the solenoid which applies air pressure to the input water line to purge the water system. Note that it may be necessary to start the engine to build up air pressure.

7. Remove cap from cold water circuit in Aqua-Hot compartment and pour in 8 oz. of RV Antifreeze. Replace cap and repeat step 6. Then proceed to step 8.
8. When only air remains in the lines, close Hot Water Drain Valve and all faucets. Replace drain plugs in toilet and Instant Hot. Operate the Instant Hot valve to clear the heat exchanger of remaining water.
9. Turn Water Purge Air Pressure Switch and Water Pump Switch off, and shut down engine.
10. Open all faucets (toilet valve to remain open).
11. At this point, the only water remaining in the system is contained in the P traps beneath the lavatory, shower and kitchen sink, and clothes washer (optional). To prevent this water from freezing and damaging the traps, put one pint of RV system anti-freeze into each drain. See WASTE SYSTEM winterizing.

NOTE

When reactivating system, make sure (optional) Instant Hot is full of water before switching on.

GENERATOR

GENERATOR OPERATION

The generator can be started and stopped from any of three locations within the coach. At the left hand overhead dash panel, at the galley panel, or at the bedroom panel. In addition, the generator can also be operated from the controller box in the blower/radiator (front roadside) compartment.

To start the generator, push the Generator switch to the Start position and hold until the generator starts, as indicated by the indicator light. Do not hold switch on for longer than 5 seconds at a time! If the generator does not start the first time, wait a minute and try again. Release the switch when the indicator light glows. After starting, there will be a delay of approximately 25 seconds before the automatic change over switch will permit the generator to pick up the load. The generator may be stopped at any time, by holding the switch to the Stop position until the generator stops (light extinguishes).

In cold weather, it is necessary to activate the cylinder glow plugs before starting. Push start-stop switch to stop position and hold for 15-20 seconds. See operator's manual for more detailed information.

GENERATOR MAINTENANCE

Refer to Operator's Manual in your owner's kit for inspection maintenance requirements.

CAUTION

The generator tray is electrically operated and extends outward with considerable force. To extend the tray, move around to the road side and operate the tray switch in the front compartment to out position. Be sure that there is sufficient clearance in front of the tray and that nobody is in the way! Use extreme caution when observing and operating generator with tray extended.

GENERATOR EXHAUST

The generator can be run in one of two ways. The cap on the blow out pipe can be left on if the generator is to be run while in close proximity to other coaches in a campground situation. Or it can be left open while traveling or when the exhaust gases will not bother neighbors in camping situations. The generator runs on diesel fuel, so to reduce water contamination and sooting, Wanderlodge recommends that the roof exhaust only be used when needed in campground situations.

CAUTION

The generator exhaust will be hot when generator is running and for a time after generator has been turned off. To avoid burn injuries, allow generator exhaust to cool down before any contact with pipe.

AIR CLEANER

Cleaning Instructions:

Donaldson does authorize cleaning the Dura-Lite unit (throwaway type) but this can be impractical in most cases. If it is cleaned, the following should be observed.

Blow air into the Dura-Lite's outlet neck causing dirt to flow off the media and out the dirty air inlet opposite the normal air flow direction. This procedure keeps the abrasive contaminants away from the clean air side.

Do Not use pressurized air higher than 100 psi.

Do Not use compressed air cleaning when the filter media is wet.

OIL CHECK/CHANGE

To be on the safe side, check oil (dipstick located on road side of generator) in engine crankcase daily, or before each start, to ensure that the level is in the safe range between the upper and lower marks on the dipstick. Do not operate generator if level exceeds the upper mark, or is below the lower mark.

CAUTION

Do not check oil level while engine is operating. Engine must be stopped to obtain a true reading, as well as for safety reasons!

Whenever possible, drain the oil while the engine is still warm. To drain, place a container below the unit, open the oil drain and allow sufficient time for the old oil to drain completely. After draining, close drain plug and tighten securely.

COOLING SYSTEM

Cooling system capacity is about 16 quarts of liquid. System should be filled using equal parts of water and ethylene glycol. (A drain petcock is provided on the underside of the radiator.)

When draining the coolant, remove the cap from the top of the engine and open the engine block drain cock located below the fuel injection pump.

Check coolant level frequently and add antifreeze mixture as needed to maintain full system.

HOURS RUN METER

Meter is located on generator control panel.

GENERAL TROUBLESHOOTING

Refer to the Generator Service Manual for repair and maintenance data. Generator repairs should be accomplished by a qualified repair agency.

GENERATOR OVERLOADS

If the rated capacity of the generator is exceeded, the safeguard circuit breaker, located on the front surface of generator electrical box, will trip to protect the generator against damage. This condition could be caused by a short in the coach AC supply circuits, or by operating too many appliances simultaneously, resulting in an overload condition. If the safeguard circuit breaker trips, the generator will continue running but no AC output will be supplied. Before resetting the circuit breakers, turn off some of the coach appliances and lighting to reduce the load to within the operating limits of the generator. If this is done, and the generator breakers still trip, a short circuit is indicated. Turn off the generator, locate and correct the cause of the short circuit.

OIL PRESSURE

Always ensure that with the engine running, oil pressure is registering on the upper dash generator oil pressure gauge.

STORAGE PROCEDURES

If the generator is to be out of service for a long period of time, perform the following procedures before placing the unit in storage:

1. Drain oil from crankcase (while hot) and refill with specified oil. Run generator after change to circulate new oil.
2. Clean exterior surfaces of generator set then spread a light film of oil over any unpainted metallic surfaces which could corrode.

GENERATOR SPECIFICATIONS

Electrical Rating	15 KW at 120 VAC
Fuel Supply	Diesel, separate pickup in main tank
Fuel Filter Element	WL P/N 3970860
Cooling System	16 quarts
Crankcase Capacity	9.5 quarts
Oil Filter	WL P/N 3970878
Oil Specifications for Generator	
API Classification	CD 10W30/10W40 (See Operator's Manual)
Air Filter Element	WL P/N 3838158 (Donaldson ECB05-5001)

CHASSIS HEATING SYSTEM

Heat generated by the engine is supplied through the coolant to a 46,000 BTU unit for the pilot and co-pilot area.

OPERATION FOR DRIVER/CO-PILOT HEATER

1. The coach ignition switch must be on for operation of blower motors.
2. Use chassis AC-Heat control panel to select fan speed, heat temperature, and venting desired.

HYDRONIC HEAT EXCHANGER

Heat generated by the engine coolant is also supplied to heat exchangers which provide heat to the Hydronic System, while in transit, without the necessity of using the diesel burner or AC circuit. See Section 13-3.

ELECTRIC HEAT

Electric forced air heaters (120 vac) are located in the bathroom, and kitchen. Your electric heaters are provided for auxiliary heating. Since each heater draws 10-15 ac amps, operator load management becomes an important consideration.

KITCHEN HEATER OPERATION

1. A/C Master Front switch on shifter panel must be turned on.
2. Kitchen thermostat must be set to HEAT and set for temperature desired.

BATHROOM HEATER OPERATION

Bathroom thermostat must be turned on and set for temperature desired.

DIESEL FIRED HYDRONIC HEATING

INTRODUCTION

The Aqua-Hot Motor Coach and Marine Heating System is an on-board heating system that provides a continuous supply of domestic hot water, as well as interior heat where and when it is needed. Both heating features are accomplished by a 50,000 BTU diesel-fired burner and a 1650 watt (5630 BTU) electric heating element (110 volt/AC). These two heating sources separately or simultaneously (during high heat demand periods) maintain the temperature of the Aqua-Hot's 50/50 solution of water and antifreeze. In addition to domestic hot water and interior heating capabilities, the Aqua-Hot has also been designed to preheat the vehicle's engine prior to starting. This feature provides easy engine start-up on cool mornings.

DIESEL BURNER

Turn the diesel burner control switch ON. This procedure will activate the diesel burner and the indicator light. Allow 20-30 minutes for the system to reach operating temperature.

ELECTRIC HEATING ELEMENT

The electric heating element is hard-wired into your coach's 110 volt/AC electrical system and is operational whenever the AC circuit is activated. If the system has been out of service for a period of time, allow 2-3 hours for the system to reach operating temperature. We mention the electric heating element because there will be times when you will need to use only the electric heating element for all your heating needs, such as when the moderate, ambient temperatures exist and/or when there is a low demand for domestic water heating.

SUPPLEMENTAL HEAT

The Aqua-Hot's engine preheating system acts as a supplemental heating source, in addition to the diesel burner and electric heating element. While traveling, the engine's heated coolant will automatically pass through the engine preheat loop, transferring heat into the Aqua-Hot's heat tank. This feature reduces the total operating hours of the diesel heater.

NOTE

Do not operate the engine preheat circulating pump while traveling.

ROOM THERMOSTATS

This installation uses 2 room thermostats for the living area. The living room, kitchen, and bedroom utilize the Dometic "Comfort Control Center" (see the Dometic manual for operation.) The bath uses a separate thermostat. Adjust each thermostat to the desired temperature. This procedure activates the Aqua-Hot's zone circulation pumps and zone relays. The pumps circulate the heated solution of water and antifreeze to the heat exchanger's blowers. There are 3 heat exchangers in the kitchen/living room, 1 or 2 in the bathroom, and 1 or 2 in the bedroom.

BAY THERMOSTAT

This installation uses a low temperature thermostat in the bay. This thermostat is pre-set to 40 degrees Fahrenheit. This will prevent freezing of the water system.

UPKEEP

3.1 MAINTENANCE SCHEDULE

MONTHLY

Check the Aqua-Hot's 50/50 solution of water and antifreeze to ensure it is at the proper level. Do this by visually checking the coolant level in the Aqua-Hot's expansion tank. This should be checked only when the Aqua-Hot is HOT. Adding solution to the expansion tank when the heater is cold will result in solution overflow when the Aqua-Hot heats to normal operating temperatures.

ANNUALLY

CAUTION

**Before cleaning or servicing,
disconnect all power supplies.**

Be sure to have your Aqua-Hot tuned up yearly. A tune-up should consist of a fuel nozzle and filter replacement and thorough cleaning. This simple tune-up will keep your Aqua-Hot running smoothly throughout the year, as well as allow service personnel to inspect for additional wear and tear of other important components.

CAUTION

**Operating the Aqua-Hot diesel burner or electric heating
element without the 50/50 solution of water and antifreeze
will cause serious damage to the heater.**

See Operator's Manual for further information.

WINTERIZATION

See Section 11-5 for Wanderlodge procedure in lieu of Aqua-Hot procedure.
Either is acceptable; however, procedure in Wanderlodge manual is preferred.

BLEEDING THE SYSTEM

The Aqua-Hot system is self purging via the header (or surge) tank located in the Aqua-Hot compartment.

Keep the surge tank at appropriate level; fill only when the system is at operating temperature, or tank will overflow when it reaches operating temperature.

INTERIOR & EXTERIOR CARE

CORIAN TOPS

Even stubborn stains ... such as grape or beet juices ... wipe off with a damp cloth and household cleanser. Because CORIAN is solid all the way through, it cannot be harmed by abrasive cleansers and normal household cleaners.

CORIAN is strong and tough, but slicing on it with knives can cause scratches. Use a cutting board.

While CORIAN does provide an extra measure of protection (better than ordinary counter tops), it is not recommended as a hot pad. Do not place hot pots and pans directly on your CORIAN counter top.

Since it's a solid material with color and pattern all the way through, unusual damage such as cigarette burns, scratches, or other surface abuse can usually be removed using ordinary household cleansers or fine sandpaper. If the stain persists, or if the scratch is particularly deep, first use a medium sandpaper (120 or 240 grit) then fine sandpaper (320 or 400 grit) followed by circular motion buffing with a Scotch Brite pad to match the gloss of adjacent surfaces. Household cleanser, steel wool or Du Pont No. 7 polishing compound can also be used if higher gloss levels are needed.

CAUTION

Certain chemicals found in the home-such as paint removers, paint brush cleaners, acid drain cleaners and certain brands of nail polish and polish removers - can harm CORIAN if left in contact even for short periods of time. These materials should be wiped away promptly and flushed with water. Depending on time of exposure, surface damage caused by these materials can sometimes extend too deeply for practical repairs.

INTERIOR CARE

The interior can be kept in good condition with the use of approved cleaning agents for wall coverings and ceilings, plastic fixtures, stainless steel, formica and so on. Never use abrasive cleaning agents on interior of refrigerators, or on the lavatory, tub/shower, or toilet, as they can cause permanent scratches. Be sure that the cleaning agent will not damage the material. Note that some plastics are incompatible with certain cleaners. Read the directions on the container before using. For the most part, the cleaners and polishes that would normally be used in your home are equally well-suited for use in your motor home.

STRESS CRACK AVOIDANCE OF LAMINATE MATERIALS

Causes of stress cracking - caused by the concentration or buildup of stresses in a particular area of a laminated assembly. When this stress becomes greater than that

which the laminate can withstand, a stress crack will occur. If such stresses are allowed to concentrate around a cutout or other such fabrication detail, one or more cracks can characteristically radiate from the sharper corners of the cutout, where, for mechanical reasons, the laminate is the weakest.

The stresses can be caused by external mechanical forces but are generally caused by the normal dimensional movements of the laminated assembly as it reacts to the surrounding environment. As with all wood based products, high pressure laminates and their substrates react to humidity changes. Under moist conditions, laminated assemblies gain moisture and expand dimensionally. When this same assembly is subjected to dry conditions, however, this moisture is lost and shrinkage results. If the laminate shrinks more than the substrate, stress cracking of the laminate surface can occur in certain areas.

STEPS TO MINIMIZE STRESS CRACKING-

in extremely dry conditions, relative humidity of 10% or less, and excessively warm temperatures, generally greater than 95 degrees Fahrenheit, the following precautions should be taken when storing the coach for a length of time greater than 48 hours:

- Open a roof vent hatch to permit heat to escape from the interior of the coach
- Provide a source of moisture for the interior of the coach, such as an open container of water, to boost interior moisture content

By reducing heat buildup and adding moisture content to the interior, less dimensional movement between the laminate and substrate should occur, thus minimizing the stress between the laminate and substrate.

EXTERIOR CARE

Exterior paint finish life can be extended by periodic cleaning and waxing. This will preserve the paint and allow easier removal of dirt and road tars. Use touch-up paint for small areas to keep the coach finish in like new condition.

Frequent washing of the coach is necessary to prevent corrosion in areas where heavy salt sprays are evident. A clear acrylic spray may be used, with care, to control corrosive effects of salt spray on metal surfaces.

CAUTION

Some car/truck wash facilities may use strong detergents or other chemicals that could cause permanent staining or streaking of exterior paint and aluminum trim. A strong alkaline solution, while useful for dissolving dirt, is a suspected harmful ingredient.

Before enlisting any commercial wash service or facility, you should determine that cleaning agents used will not damage the finish of your coach.

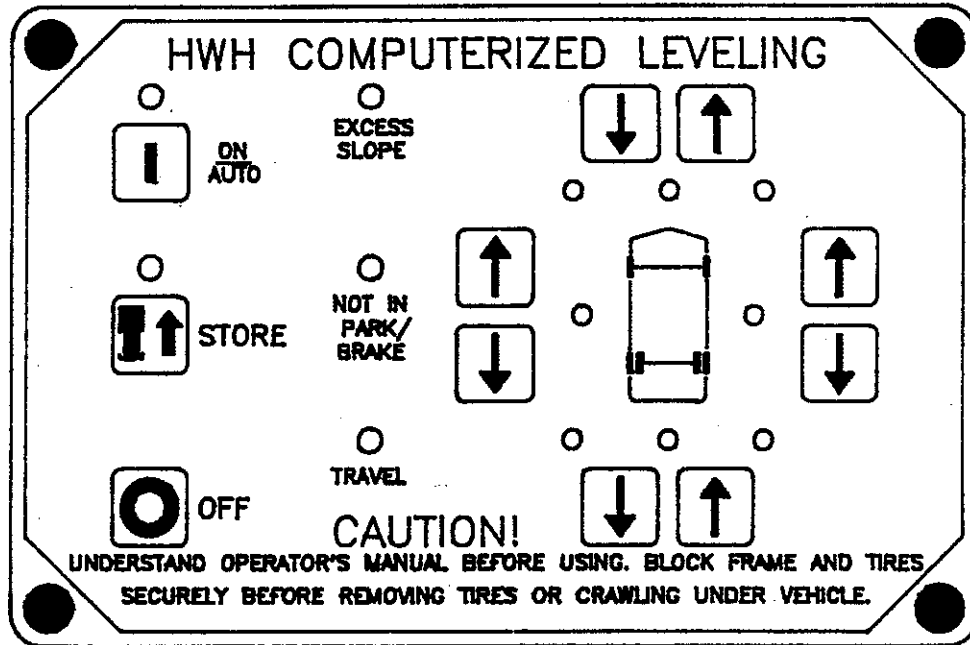
CAUTION

Avoid spraying water through the refrigerator vent door. Refrigerator PC control boards are not completely sealed and are vulnerable to an inadvertent dousing.

LEVELING JACK OPERATION

AUTOMATIC LEVELING JACKS CONTROL

The control panel is mounted on the sidewall beside the pilot.



CAUTION!

Read and understand entire operators manual before operating.

Block frame and tires securely before changing tires or crawling under vehicle. Do not use leveling jacks (or air suspension) to support vehicle while under vehicle or changing tires. Vehicle may move forward or backward without warning causing injury or death.

Keep all people clear of vehicle while leveling system is in use.

Do not over extend the rear jacks. If the weight of the vehicle is removed from one or both rear wheels, the vehicle may roll forward or backward, off the jacks.

Never place hands or other parts of the body near hydraulic leaks. Oil may cut and penetrate the skin causing injury or death.

1. RED WARNING LIGHT (DASH MOUNTED)

Anytime one or more jacks are not fully retracted this light should be on. Do not move the vehicle if this light is on.

PANEL FUNCTIONS

1. CONTROL BUTTONS

The "OFF" button is in the lower left hand corner of the touch panel. Push the "OFF" button to stop hydraulic operation.

Top left is the "I" button with its operating light above it. Below the "I" button is the "STORE" button for retracting hydraulic jacks, with its operating light directly above it.

The remaining buttons on the right hand side of the panel are MANUAL control buttons that operate only during the manual mode. The manual buttons are the eight (8) buttons on the right half of the label, two for each of the FRONT, REAR, LEFT SIDE, and RIGHT SIDE. Pushing UP arrows will cause the coach to raise and DOWN arrows will cause the coach to lower.

2. INDICATOR LIGHTS

The four (4) yellow indicating lights are level sensing indicators. When a yellow light is "ON", it indicates that its side or end of the vehicle is low. No more than two (2) lights should be on at the same time.

The four (4) red lights surrounding the yellow level indicators are jack warning lights. They are functional only when ignition is "ON" or in "ACCESSORY". During the hydraulic mode they light when the respective jack is extended. The vehicle should not be moved while these lights are on.

The "EXCESS SLOPE" indicator will light when the leveling system cannot level the coach.

The "NOT IN PARK" indicator is "ON" when the control panel is "ON" and the park brake is not set.

The "TRAVEL" indicator is "ON" when the control panel is off, the jacks are retracted, and the ignition switch is on. Do not move vehicle unless travel light is "ON".

The "LOW BATTERY" indicator is "ON" when the controls sense low voltage set between 8.0 and 9.0 volts. The system will stop leveling functions when low voltage is detected.

The master "JACKS DOWN" warning light, on the dash, will be lit when any one touch panel "Jacks Down" warning light is on. This light will function when the ignition is "ON" and the touch panel is "ON" or "OFF". IMPORTANT: This light will be the only working "Jacks Down" warning light when traveling.

GENERAL INSTRUCTIONS

Press the "OFF" button and turn the ignition switch OFF at any time to stop the operation of the system.

Any time a hydraulic leveling process is interrupted, retract the jacks according to the "JACK RETRACTION" section and then restart the leveling process.

Do not operate the system when the "LOW BATTERY" light is on. If the park brake is not set when the "I" button is pressed, the "NOT IN PARK" light will come on and the system will not operate. It will remain "ON" only while the "I" button is pressed.

PREPARATION FOR TRAVEL

Before traveling, the red jack warning lights must be "OFF" and the travel light must be "ON". If lights are not correct for travel, retract jack as described in the "JACK RETRACTION" section.

CAUTION; Do not rely solely upon the warning indicator lights. It is the operator's responsibility to check that all jacks are up before moving the vehicle.

SYSTEM OPERATION

AUTOMATIC HYDRAULIC LEVELING

1. Place transmission in neutral position and set parking brake. Turn the ignition to the "ON" position. Note: Coach engine must be off for leveling.
2. If the vehicle is parked on soft ground, blocks may be placed under the jacks for added support.
3. De-pressurize the suspension system by moving "SUSP DUMP" switch to "DUMP", (away from "UP").
4. Press the "I" button to enter the hydraulic operation mode. The "I" indicator light will glow steady.
5. Press the "I" button a second time. The "I" indicator light will start to flash. The system automatically extends the jacks to level the vehicle and then extends any remaining jacks until they touch the ground. In the event the jacks are unable to level the vehicle, the "EXCESS SLOPE" indicator light will come "ON". One or more yellow level lights will be "ON" indicating that its jack is fully extended.
6. After a short pause the system will automatically shut off.
7. Turn the ignition switch to the "OFF" position.

JACK RETRACTION

1. The operator must be sure that there are no objects under the vehicle and that all people are clear of the vehicle.
2. Start coach. Pressurize the suspension system by moving the "SUSP DUMP" switch to the "UP" position. When the front and rear suspension is fully pressurized, put the switch in the "UP" position.
3. Press the "I" button one time. The "I" indicator light will glow steady. Press the "STORE" button. The store indicator light will flash. As each jack retracts, its red warning light will go out. Approximately one minute after the four red warning lights are off and the "TRAVEL" light is on the vehicle may be moved.
4. The system will automatically shut off six minutes after the four "Jacks Down" warning lights on the touch panel have gone out. If a "Jacks Down" warning light stays lit, the system will continue to run for thirty minutes. It will then shut off regardless of the touch panel warning lights. Note: DO NOT interrupt power to the control box until the red indicator light above the "I" button has gone out.
5. If jacks cannot be retracted by the above procedure see "VALVE RELEASE OPERATION" section.

MANUAL HYDRAULIC OPERATION

1. Place transmission in neutral and set the parking brake. Turn the ignition to the "ON" position.
2. If vehicle is parked on soft ground, blocks may be placed under jacks for added support.
3. De-pressurize the suspension system by moving "SUSP DUMP" switch to "DUMP" (away from "UP").
4. Press the "I" button. The indicator light will glow steady.
5. The vehicle may be leveled using the manual raise buttons on the right half of the panel. If a yellow "LEVEL SENSING" light is "ON", that side or end of the vehicle is low. Jacks will extend (or retract) in pairs to raise (or lower) a side or end of the vehicle. When a jack is extended, approximately two (2) inches, the respective jack warning light on the right half of the panel will come on.

IMPORTANT: Do not continue to push a raise button for more than ten (10) seconds after that pair of jacks are fully extended.

6. When leveling is completed, push the "OFF" button on the leveling panel and turn the ignition switch to the "OFF" position.

VALVE RELEASE OPERATION

1. Use the valve release "T" handles for retracting only if the "STORE" button on the control panel will not retract the jacks for travel.

CAUTION: Keep away from the wheels, do not crawl under coach, keep a safe distance in front and rear of vehicle. The vehicle may drop and/or move forward or backward without warning or as the valve release is operated.

2. Locate the valve release "T" handles on the solenoid valves. The solenoid valves are located on the pump manifold assembly.
3. Allow clearance for the coach to lower.
4. Open the two outer valves slowly by turning counter clockwise. The handles may turn easily at first but as an internal spring is compressed, turning may become more difficult. The valves need only be opened enough to retract the jack.
5. Retract the front jacks by opening the two center valves as described in step 4.
6. Check that all four jacks are now retracted.
7. Close the valves by turning the release handles clockwise. Once the internal spring tension has been released, the handles will turn free for several turns. DO NOT tighten the handles past this point as internal damage may occur to the solenoid.
8. The system should now be repaired before being used again.

SERVICING OF LEVELING SYSTEM

HYDRAULIC OIL

Retract the four leveling jacks before checking oil level. Locate the pump/manifold assembly and clean any dirt away from the breather/filler cap on the oil reservoir. Check that the oil is within one (1) inch of the top of the reservoir.

The oil should be checked when the vehicle is first purchased and then once every two years. More often if there is an oil leak in the system. Use universal, multipurpose or Dexron transmission fluid. DO NOT USE brake fluid or hydraulic jack fluid. Use of these fluids can damage seals. The hydraulic tank should be filled to within one (1) inch from the top.

VISUAL INSPECTION

Periodically inspect the leveling jacks for damaged or missing parts such as pivot bolts, springs, or warning switches. Check the hydraulic lines and wiring for damage and wear.

"NOT IN PARK/BRAKE" CHECK

Set park brake. Switch ignition to the "ON" position. Continuously press "I" button on touch panel to turn on system. Release parking brake and confirm that the "NOT IN PARK/BRAKE" indicator light comes on. Reset parking brake. Switch ignition to "OFF" position.

NOTE: If any of the above checks or inspections reveal a problem or if there are other problems or questions, consult your vehicle or coach manufacturer, or HWH Corporation for service or repair.

OPERATIONAL CHECK

Review operator manual and confirm that the system is operating correctly. Check warning switch operation by extending one jack approximately four inches, check that the warning light on the dash came on, retract the jack, then repeat for other three jacks.

NOTE

If any of the above checks or inspections reveal a problem or if there are other problems or questions consult your nearest service center.

NOTE

If the jacks are not retracted before driving away, a buzzer will sound.

CAUTION

Do not drive the coach unless the tag axle is correctly pressurized to assure even weight distribution. There must be pressure in the TAG AXLE air bags to prevent flat spotting of TAG AXLES tires during brake application.

CAUTION

Severe injury or death may result. Do not use the leveling system for changing tires or working under the vehicle. Keep the rear wheels in firm contact with the ground with the parking brake set. With the leveling jacks extended, there is a possibility the vehicle may move either toward the front or rear.

LPG SYSTEM

LPG SYSTEM

The coach is equipped with a permanently mounted 44 gallon (148 pounds of fuel-net) LP gas tank which is the energy source for the cooktop (range) hydronic heat system and alternate source for the refrigerator.

LPG TANK AND CONTROLS

The LPG supply tank is located between the frame rails directly to the rear of the pass-thru compartment. LPG system controls include a main gas service valve, solenoid shut-off valve, two stage pressure regulator, filler connection with Auto Stop (80%) fill valve, 20% vapor (stop filling when liquid appears) valve, and the pressure relief valve. The main gas service valve has an extension accessible through a door on the road side. Extensions for the filler connection and the 20% vapor valve terminate below the road side diesel fuel fill. The regulator and associated components at the tank are accessible after removal of a plate in a road side compartment.

WARNING

When the coach is to be stored in a confined area, turn off the LPG at the main tank shutoff valve. With the LPG leak detector this may now be accomplished by turning off the LPG Master Switch on the galley panel.

LPG tank level can be monitored at the galley panel above the microwave oven.

FUEL REQUIREMENTS

Liquefied petroleum gas is a material composed of various hydrocarbons such as propane, butane, or a mixture thereof. In its gaseous form (vaporized) it is colorless and has a garlic-scented additive to ensure detection. In addition to being highly inflammable, it is also dangerous to inhale. For ease of transportation and storage, LPG is compressed into a liquid state and stored, in this form, within the LPG tank. As fuel is used, vapor passes from the top of the tank into the two stage pressure regulator and to the various gas appliances.

Appliances will not function if the LP gas does not vaporize. Butane will not vaporize below 32° F. (the freezing point of water), but propane will continue to vaporize down to 44 degrees below zero. Propane has become the main type of LP gas used in RV's in recent years. Your LP supplier will have the correct type or blend for your locale. If your travels will take you into an area where climate differs, ask your LP dealer for his recommendations. The names of LP suppliers can be found in the yellow pages of the telephone directory under "Gas-Liquefied Petroleum-Bottled & Bulk". Many campgrounds now have LP gas fill facilities, as do some service stations.

Prevent condensation and possible regulator or line freeze-ups, when filling the tank, by requesting the dealer to add a small amount of methyl alcohol to the fill up. A common mixture is one ounce of Methyl Alcohol to each 20 pounds of LPG.

NOTE

Liquefied petroleum gas is heavier than air.

FILLING THE LP GAS TANK

When the tank is being filled, the service valve must be closed and the 80% liquid level valve (20% vapor valve) must be open. The 80% auto stop fill valve may close before liquid appears at the 80% liquid level valve, but if liquid does appear, stop filling immediately; the tank is filled to its LP capacity. Close the liquid level valve. Do not use a wrench to tighten this or the service valve; they are designed to be closed leak-tight by hand. If you cannot hand-tighten properly, the valve probably needs repair or replacement.

CAUTION

Be sure that the main LPG supply is shut off during refueling to prevent accidental ignition of gas fumes by appliance igniters.

CAUTION

All gas appliances must be cut off before filling the LPG tank. Check gas lines and fittings periodically for tightness and leakage.

REGULATOR

The two stage pressure regulator regulates the pressure of the LPG supplied to the appliances. The regulator functions automatically and is factory-preset to provide the correct line pressure. Do not attempt to tamper with or reset the regulator! Even a small variation above the normal gas line pressure can be sufficient to create a dangerous situation and cause possible damage to individual appliance components. If there is any doubt about the regulator setting it can be checked by your Wanderlodge dealer or LPG supplier. The correct setting is 11-14 inch water column.

OPERATION

To operate any LPG appliance, the main gas (Service) valve, must be open. Also individual valves at each appliance must be opened prior to use. When first used, or after a refill, there may be some air in the gas lines which will escape when you open a range burner or similar LP gas valve. The air may extinguish your match or igniter the first time or two, before you get ignition. Remember, too, that when you close the tank's service valve some of the gas will remain in the lines. To completely bleed the lines of gas, close the tank's service valve and light a range burner to use up the excess. When the flame burns out, turn the range burner off.

CHECKING FOR LEAKS

Periodically check the LPG system for possible leakage. Do not wait for an alarm condition to occur before correcting a leak! Although the entire system and associated appliances undergo extensive factory testing for leakage, road shocks and heavy vibrations may loosen or damage piping or fittings. Leaks will usually become noticeable by the characteristic odor of the garlic-scented gas additive. To check, turn off all burners and pilot lights. Open all doors and windows. Open LPG tank service valve and use an ammonia and chlorine free soap-bubble solution on all connections. Any bubbles are evidence of leakage.

NOTE

The gas leakage detectors may momentarily sound an alarm when the engine is initially started or when a heavy electrical load is placed on the system. Further, the ultra sensitive response of these units may also cause an alarm to be given in the presence of certain pressurized-can sprays or cleaning agents. Do not assume! Always determine the reason for this vital alarm being given!

LPG CONSUMPTION

Most gas appliances are intermittently operated. However, operation during cold weather conditions does cause heavy consumption. The amount of LPG consumption depends on the total use and manner of use of these appliances.

Note that each gallon (4 1/4 lb) of LPG fuel produces approximately 91,500 BTU's of heat energy. The LPG tank used in your coach will furnish over 3 million BTU's.

For your guidance in estimating your anticipated fuel consumption, the following is a listing of typical appliance consumption ratings when the appliance is operated for one hour:

Refrigerator	1,500 BTU's
Cooktop Burners	5,200 BTU's each

LPG SYSTEM WARNINGS

WARNING

LP gas containers shall not be placed or stored inside the vehicle. LP gas containers are equipped with safety devices which relieve excessive pressure by discharging gas to the atmosphere.

WARNING

It is not safe to use cooking appliances for comfort heat.

This 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 appliance(s) 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.

Cooking appliances need fresh air for safe operation. Before operation:

1. Open overhead vent or turn on exhaust fan.
2. Open Window.

A warning label has been located near the LP gas container. This label reads.

WARNING

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

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

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

The following label has been placed in the vehicle near the range area:

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.

LP gas regulators must always be installed with the diaphragm vent facing downward. This will minimize any chances of vent blockage which could result in excessive gas pressure causing fire or explosion.

WARNING

Never check for leaks with an open flame. Do not check copper plumbing lines for leaks using ammoniated or chlorinated household-type detergents. These can cause cracks to form on the line and brass fittings. If the leak cannot be located, take the unit to your Wanderlodge dealer or LPG supplier.

LPG LEAK DETECTOR SYSTEM

The system has been developed to the point where it is unique; it shuts off the LP gas at the high pressure source, yet holds the valve open to provide ample appliance flow with a minimum amount of current usage.

Three components make up the system

1. **Gas Detection Control Unit:** mounted in the toekick of the kitchen base cabinet. This is the "brains" of the system and provides an electrical signal to the solenoid valve when LPG service is required.
2. **Solenoid Valve:** installed in the high pressure LPG line feeding the two stage regulator. It is a "normally closed" solenoid valve and has a special winding of 22 ohms (approximate) resistance, so it uses very little current in the "hold open" position. In order to close the valve, it is only necessary to break the circuit. This provides a "fail-safe" feature in the event of loss of 12 volt power.
3. **LPG Master switch:** located on the galley panel.

The following events will result in an open/low voltage circuit and allow the solenoid valve to close and shut off the LPG supply:

1. Pushing the switch to OFF on LPG MASTER switch or the Gas Detection Control Unit. Green light will go out.
2. The Gas Detection Control Unit senses the presence of LP gas (or can be triggered by a propane lighter or even hair spray!) Green light out, Red light on, along with audible signal.
3. The Electronic Master switch is turned off. Green light will go out.

NOTE

System is not Master Switch activated.

In order to restore LP gas flow to the coach, use the following procedures corresponding to the events above:

1. Push switch on the LPG MASTER and the Gas Detection Control Unit to ON. Green light will come on.
2. Correct the cause of LP gas leak, or determine if other fumes caused the shut down. Green light will come on.
3. Turn Electronic Master Switch on. Green light will come on.

NOTE

Because of the presence of an excess flow valve in the LPG tank outlet (safety feature), sometimes an appliance will not relight after a shutdown. In this circumstance, wait five (5) minutes for LPG pressures to equalize before relighting.

OPTIONAL EQUIPMENT

AUXILIARY AIR COMPRESSOR

This unit provides a quick source of air so there is no need to wait for pressure to build up after starting engine. It can be used to operate air tools and accessories without starting the coach engine. It also serves as a standby unit in the rare case of a malfunction in the engine driven air compressor system.

The compressor and starting relay are located in a left (road) side center compartment while the 12 volt switch to operate the relay is located on the lower dash panel.

OPERATION

The compressor operates from 120 volt AC power so the coach must be plugged into shore power or the generator must be running. Press dash switch on.

Refer to Operating Manual for additional information.

MAINTENANCE

No lubrication is required for the life of the unit.

The air inlet filters should be inspected once or twice a year. The black plastic air inlet covers can be removed by turning counter-clockwise. This will reveal the felt filters. If there is evidence of dirt on filters and covers they may be washed in a solvent and air dried.

EXTERIOR LIGHTING PACKAGE

This lighting package includes an additional porch light on the curb side in the rear and an additional porch light on the road side above the utility box.

MUSICAL HORN CONTROLS-REMOTE

With this option a remote horn panel is located on the co-pilot's kick panel. (See **Musical Horn** for operating instructions.)

TABLE INFINITY

This option provides an infinity table in lieu of the standard living room table. Table is two tiered with wood tops. Top is smoked glass with vista lighting. Inside of table includes mirrored back and sides with provisions for bottle storage. Front of table includes two smoked glass doors.

The vista lights operate from a 12 volt DC source. The On/Off switch is located in the drape channel on the back of the table just below the top.

DINETTE PACKAGE, "L" SHAPED

Dinette is a three place dinette with a motorized retractable table for increased kitchen work space. Option includes:

1. Eight strips of vista lights inside the ceiling fixture. Vista lights are wired to a separate switch.
2. Switches for in-out operation of dinette table, overhead fluorescent light fixture, vista lights and reading light are located in bottom of dinette overhead cabinet.

SEAT, CO-PILOT 33" W/POWER FOOTREST

This optional seat is a wider seat with power footrest and lumbar support. It has the same six way electric seat adjustments as the standard co-pilot seat.

FREEZER, 50 LB. CAPACITY

Freezer is located in the curbside center luggage compartment. It is mounted on a roll out tray, with latch on right side. Power is supplied by either 120 or 12 volt. (See manufacturer's operation manual for further information.)

GARBAGE DISPOSAL

The disposal is located under the sink bowl and requires 120 vac power via the generator or shoreline hook up. The switch controlling the disposal is in the kitchen base cabinet. (See manufacturer's operation manual for further information.)

SKYLIGHT

A skylight with sliding covers, roof mounted, is offered in the ceiling. To open the skylight for fresh air or light, slide covers outward by applying pressure on the cover handles.

To adjust covers for optimum sliding tension:

1. Remove caps over the screws which hold the skylight trim in place. Caps may be removed by lifting the edge with the tip of a small screw driver or knife blade.
2. Screws along straight section of frame may be loosened or tightened as required to obtain the desired sliding tension.

NOTE

Do not adjust the two screws on each end for slide tension purposes.

Occasional glass adjustment may be required to maintain weatherproof integrity. Follow adjustment instructions that are printed on the skylight glass to obtain proper sealing between glass and rubber gasket.

CAUTION

Improperly installed glass can lift while vehicle is in motion.

SAFETY & SECURITY FEATURES

FIRE EXTINGUISHER

A portable, multi-purpose dry chemical fire extinguisher is located behind the rear living room companion chair. A second fire extinguisher is located in an outside coach compartment. To use, release the clamp and remove the fire extinguisher from the bracket, pull safety pin from handle, squeeze handle and apply chemical under flame.

SMOKE DETECTOR

A smoke detector (now code mandated) is installed over the rear dinette seat. A warning label is attached to the exterior of the smoke detector.

LP GAS LEAKAGE DETECTOR

The gas leakage detector, is located in the kitchen base cabinet. In the event of an LP leak, the unit sounds an alarm and closes the main LPG supply by deactivating the solenoid valve located in the high pressure gas line just before the regulator. See LPG Leak Detector System for additional information.

HEAT ALARM

Heat alarm sensors are located at the 120V distribution panel and in the refrigerator vent stack. A buzzer in the pilot's front overhead will sound if excessive heat is detected in either area.

BURGLAR ALARM

The security of your motor home and contents are assured by an intruder alarm system which protects windows and entry door. The windows are protected by two glass breakage sensors, which are located in the bedroom and living room area. These sensors trigger an alarm if a window is opened. The entry door uses a door jamb switch which activates the alarm when the door is opened. A panic switch, located on the bedroom control panel, allows you to alarm the system any time that a disturbance is noted. To arm or disarm the system, use the key chain (RF) wireless transmitter. For more detailed information, see manual in owner's kit.

A/T SWITCH

Anti-theft switch for the ignition circuits (A/T switch on lower dash) can be operated so that the unit cannot be started. This also serves as the coach master switch.

MIRRORS

All interior mirrors meet ANSI A119, and 297.1 codes, for your safety.

GENERATOR AUTO-START OPERATION

The auto-start system is comprised of two switches, a system board, a 120 VAC voltage monitor, and a generator flywheel sensing element.

The auto-start system monitors both DC and AC voltages. With the auto-start enable switch ON, DC and AC voltages are monitored. The AC switch has two positions: 1) low AC volts, and 2) no AC volts. With the AC switch in the low AC volts position, the generator will crank if the voltage is between 60 VAC and 105 VAC. If the AC voltage drops below 60 VAC, the generator will not crank.

With the switch in the no AC volts position, the generator will crank at voltages less than 105 VAC.

The DC voltage set point is 11.25 VDC. If the DC voltage drops below 11.25 VDC, the generator will crank.

WARNING

Be sure the auto-start enable switch is OFF prior to rolling out the generator tray for maintenance or fluid checks.

POWER CORDS & HOOK UP

Your coach is supplied with a permanently attached 50 amp power supply cord, in the utility compartment (road side rear), for hook up to an external power source.

In addition, a single 30A twist lock connection is supplied to provide two 30A 120 vac lines (from separate external circuits in conjunction with the 50A fixed cord and 50A/30A adapter). This will permit use of all motor home appliances without overloading the supply lines. The total cord complement is as follows:

- 50A male (1) fixed
- 50A female to 30A male (1)
- 30A female to 30A male (1)
- 30A female to 30A male extension (2)
- 30A female to 20A male adaptor (2)

Note that each cord has a ground pin which provides proper electrical system grounding. The ground pin is your personal protection from electrical shock hazards. **Do not use any adapter, cheater, or extension cord that will break the continuity of the grounding circuit. Never remove the grounding pin for convenience of being able to make a connection to a non-grounded receptacle!**

Never operate your coach with a "hot skin"! If you can feel even a slight "tingling" shock from touching the coach body while standing outside on the ground, immediately disconnect the electrical hookup until the trouble is located. This fault is usually caused by a break in the grounding circuit, which should be continuous from the coach skin or frame to the distribution panel board to the ground pin on the power supply cord, and from there to the park receptacle and earth ground.

NOTE

In order to keep the utility compartment clean while traveling. Move the flap located at the bottom of the compartment to its outward position and then shut the compartment door.

SHORELINE OPERATION (COMMERCIAL POWER)

CAUTION

Your motor home has been wired in accordance with the National Electrical Code. All 120 volt AC wiring is two-wire service with ground; all 240 volt wiring is three-wire service with ground. For personal safety, check the polarity detector indicators on the power line monitors to be sure that lines are properly connected and grounded.

CAUTION

During thunderstorms lightning strikes may detrimentally impact the electrical system of your coach just as it would your home. To avoid potential catastrophic damage to sensitive electronic devices in your coach, disconnect shore power and cable television service prior to electrical storms reaching maximum intensity.

CAUTION

If the ground pin is used as a starting point for insertion of the 50 amp plug, the possibility exists that an over voltage condition will occur on the 120 volt lines, ie, the neutral pin of the plug will not make contact at the same time the two 120 volt pins and thus, without the neutral pin making contact as a voltage reference 240 volts may be presented to the 120 volt appliances.

Therefore, to reduce the possibility of over voltage, switch off the 50 amp main breakers located in the 120 volt ac load center prior to insertion and removal of the 50 amp plug. In addition, insert and remove the 50 amp plug straight into the receptacle instead of tilting the plug. (See Power Cord Hookup Illustration in last section of manual.)

For purposes of safety, observe all precautions when making **SHORELINE** connections. Poor grounding or incorrectly-wired receptacles can cause personal harm as well as equipment damage or fire hazards. Check reverse polarity indicator in shoreline/utility compartment to verify correct polarity and grounding of hookup.

***30 AMP ADDITIONAL SERVICE HOOKUP**

First, connect the shoreline to the coach (rotate plug clockwise to assure firm connections). The coach receptacle is located in the left side utility compartment. Connect the other end of the shoreline to the power source. Poor grounding or incorrectly-wired receptacles can cause personal harm as well as equipment damage or fire hazards. Check reverse polarity indicator in shoreline/utility compartment to verify correct polarity and grounding of hookup.

***NOTE: 30 amp additional service not available on California coaches**

ELECTRICAL RATINGS FOR MOTOR HOME APPLIANCES

In many instances, the shoreline hookups will not be rated to operate all electrical appliances in your coach. Check with facility personnel to determine the maximum current capability of the hookup. Sometimes, only one air conditioner may be operated.

<u>ITEM</u>	<u>CURRENT RATING (AMPERES)</u>
Air Conditioners	13,500 BTU (Run) 15.0-18.0
Water Heater	13.8
Television Receivers (Color)	1.0
Battery Charger <i>(depends on battery condition/load)</i>	0 to 14.0
Engine Block Heater	10.0
Electric Heaters	
Interior Heater	12.5
*Battery Heaters	1.2
Heat Tapes	3 watts/ft
Microwave Oven	15.0
Food Center	4.0
Refrigerator	2.7
Ice Maker	Start 15, Run 2.5
Instant Hot Water	6.5
*Optional Item	

SHORELINE OPERATION ... TROUBLESHOOTING

Your coach is designed and tested to make sure the 120 volt AC Neutral (white) wire and the Ground (bare copper or green) are not tied together (no continuity). This will prevent any danger of a "hot skin" if the source of power has reversed polarity (red LED lit) as indicated on the polarity indicator panels located on the right hand overhead aux. panel and in the utility compartment.

Problem**Probable Cause****Corrective Action**

Yellow LEDs lit ... Normal (desired)

Red LEDs lit

Reversed Polarity at power source.

Convince park management to correct or change lot assignment.

Neither Red or Yellow LED lights

No ground connection with park service

Use jumper lead from ground pin on shore cord to service box.

Power source (park) circuit breaker trips.

Reversed polarity in park and coach neutral and ground tied together.

Use on-board generator until qualified electrician can correct coach problem.

(Generator polarity is correct).

Yellow LED's lit plus Red LED's glow when additional load is turned on (Air Conditioner or Water Heater).

Poor ground connection at park (floating ground).

Make sure shoreline plug is fully engaged. Twist locked (clockwise) at coach.

SAFELINE ALARM

See **Overhead** dash for function.

TRANSMISSION

IMPORTANT

Your Wanderlodge® is equipped with an Allison model HD-4060 electronic 6 speed World Transmission. Refer to the operator's manual supplied in your owner's package before vehicle operation.

TRANSMISSION SPECIFICATIONS

NO. SPEEDS GEARS**RATIOS**

First	3.51
Second	1.91
Third	1.43
Fourth	1.00
Fifth	0.74
Sixth	0.64
Reverse	4.80

Torque Converter
Lubricant Capacity

TC 541-1.9 Stall Ratio
37 qts. (Includes Filter and Cooler)
Dexron II (or Mecron)

Bellhouse Size
Companion Flange
Dipstick Location

SAE #1
1810 Spicer
Left side of engine (at rear)

VIDEO & AUDIO

STEREO TELEVISION RECEIVER

Installed in the front overhead. Operates from a 120 volt source (inverter, shoreline or generator). Will not operate while in transit. Refer to owner's manual supplied with set for operating instructions.

TELEVISION RECEIVER

Installed in the bedroom. Operates from a 120 volt source (inverter, shoreline or generator). Refer to owner's manual supplied with set for operating instructions.

AUTOMOTIVE STEREO

Installed in the lower right dash. Is comprised of a tuner/cassette, equalizer, CD changer, 4 channel amp, and a single channel amp with four satellite coaxial speakers and a sub-woofer. The tuner/cassette has auto reverse, electronic tuning sensor, Dolby noise reduction and metal tape capabilities.

The speakers are located two (2) in the living room and two (2) in the front overhead. See instruction manual for operating instructions.

STEREO SYSTEM

AM/FM tuner cassette with electronic tuning and auto reverse located in the bedroom night table with two (2) 6 1/2 inch coaxial speakers.

CLOSED CIRCUIT TV SYSTEM

Includes a monitor which enables the operator to view behind the coach for purposes of backing, or passing other vehicles on the highway.

The rear-facing CCTV camera transmits images directly to the monitor via coach cabling.

Note that the system requires a brief warmup period before achieving full resolution. CCTV camera controls are preset and the standard lens supplied with the unit is designed to focus from about two feet to infinity.

CB RADIO

CB radio is in compartment (floor) at driver's right leg. Refer to CB Operator's Manual for additional information.

STEREO VIDEO CASSETTE RECORDER

Installed in co-pilot side of overhead dash. Operates from a 120 volt source (inverter, shoreline or generator). Refer to owner's manual supplied with the VCR for operating instructions. Stereo audio is routed to front stereo television.

VIDEO CONTROL CENTER

Installed in the overhead dash above the pilot. Provides independent switching capabilities for two (2) VCR's, TV antenna, cable TV, and a TV game to the television sets. Provisions have been made for the installation of a second VCR to be connected near the rear television.

With a second VCR installed, it becomes possible to record video tapes between the two VCR's. The following procedure allows this to be accomplished.

- Place the tape that is going to be played in VCR 2 (the rear VCR).
- Place the tape that is going to be recorded in VCR 1 (the front VCR).
- The TV/VCR button on VCR 2 should be depressed.
- The VCR 2 button that is listed under the VCR 1 input of the video control center should be depressed.
- Press the play button on VCR 2 and the record button on VCR 1.
- The VCR's are now recording the tape.

TV ANTENNA & ROTATOR SYSTEM

The control components of the radome-type TV roof antenna, are a hand held rotator, switch for the antenna or cable inputs and a switch for raising and lowering the antenna.

The antenna rotators, located in the co-pilot's front overhead compartment, and in bedroom control the position of the TV antenna within the radome. The three-position momentary switch (center OFF) provides right/left antenna rotation.

The Video Selector switch, located in the pilot's front overhead compartment, switches antenna or cable input.

The switches for raising or lowering the antenna are located in the Pilot's Area Overhead Dash, and in bedroom.

The radome includes an amplifier and rotator mechanism. The remote power supply operates from 12 volts dc. Low-loss coaxial cable and three wire rotator control cable interconnect the antenna and power supply.

Note that the system is protected by a fuse in the front overhead load center. In the event that the TV set exhibits problems relating to low antenna input (ghosts, etc.) check this fuse before servicing the TV set.

ANTENNA OPERATION

With the TV on and a station tuned in, rotate the antenna by pressing the rocker switch located on the control unit. Press the right side of the switch to run the antenna clockwise; press the left side to turn the antenna counter-clockwise. Although the actual antenna movement is not visible, the indicator arrow on the control unit lights and shows the direction of movement. When the antenna has made one full turn (360 degrees), the End of Rotation light comes on. Observe the picture while rotating the antenna, first in one direction, then the other, to obtain best picture quality.

MUSICAL HORN

The lower dash panel has three different switches for use with the musical horn. The POWER switch provides power to the horn. When this switch is turned on, the selection display will light up and indicate selection number 0.

The SONG select switch controls the scanning of the song desired. When this switch is pressed in the up position, the selection display will begin to increment up, slowly at first and then increase in speed. When this switch is pressed in the down position, the selection display will increment down.

The PLAY switch, when depressed, initiates the selection displayed on the selection display. If this switch is depressed while a song is playing, the horn will automatically reset and repeat the song.

The volume control operation is controlled by operating the PLAY switch and the SONG select switch simultaneously. To increase volume, depress the PLAY switch and the SONG select switch in the UP position at the same time. To decrease volume, depress the PLAY switch and the SONG select switch in the DOWN position at the same time. The volume level will be displayed on the selection display in levels from L1 (lowest) to L5 (highest).

ELECTRONIC DOOR CHIME

The door chime is located in a removable compartment in the right hand overhead storage compartment.

The door chime can be preset to play any one of 60 different tunes when the doorbell button is pressed. All controls for tune selection, volume, tone and tempo are easily accessible. Tunes may be selected as follows:

1. Refer to tune index, at bottom of chime, and note the code number for the desired tune. For example, "William Tell Overture" is identified by D8.
2. Press in the left hand tune selector button and move it to position D.
3. Press in right hand button and move it to position 8.
4. Press test button to play selected tune and adjust volume, tone and tempo as desired. Note that tunes identified with an asterisk (*) will play longer if the button remains depressed.

PHONE OUTLETS, LAND LINE

Phone outlets are located in the bedroom and at rear of sofa. Connection is in utility box.

WASTE SYSTEM

Separate holding tanks for gray water and body waste are located in compartments directly in front of the drive wheels. Each holding tank has a separate drain valve, dumping gray water and wastes through a common single discharge connection. Separate vents from each holding tank extend through the roof of the coach.

Holding Tank Capacity: Approx. 160 Gallons Combined

DRAINING THE HOLDING TANKS

The body waste (brown) holding tank is drained first, then the gray water tank. Drain the holding tanks as follows:

NOTE

It is advisable to drive your unit for a short distance to agitate the contents of the holding tank before dumping.

1. Check that both drain valves are in a closed position before removing drain cap.
2. Remove the safety cap from the single discharge connection by turning in a counter-clockwise direction and connect the 3-inch sewer hose coupling to the end of the valve. Tighten securely, in a clockwise direction. The sewer hose is stored behind door below fuel fill on road side. Place the discharge end of the hose into the sewer connection and check that all connections are secure to prevent accidental spillage.
3. Move the waste tank toggle switch on the power dump valve control panel (located in the roadside holding tank compartment) from the closed to the waste position. Then dump the gray tank by moving the toggle switch from the closed to the gray position

NOTE

The air system must be pressurized to use the power dump valve system.

4. After contents are emptied, dislodge remaining solids in the body waste tank by attaching a garden hose to the water inlet labeled "sewer." Valve must be open when using this inlet. Flush for about 2 minutes.

NOTE

Do not use the same hose to fill your potable (fresh) water tank that is used for the flushing system.

5. Disconnect garden hose from faucet and lay on ground to allow water to drain from the system before detaching from water inlet.
6. After flushing the body waste tank, move the toggle switches to the closed position.

NOTE

To clean the holding tanks, add a detergent solution to the tanks after they are emptied. The agitation action caused by vehicle movement will clean the tank.

7. Disconnect and wash out the sewer hose. Replace hose and replace safety cap securely.

HOLDING TANK DRAIN VALVE MAINTENANCE

Periodically the drain valve may become difficult to open. It is recommended that the (2) two screws in top of mechanism be removed and pull paddle out. After cleaning paddle, a coat of lithium grease should be added to both surfaces and valve reassembled.

WASTE TANK LEVEL INDICATORS

Each holding tank has a level detector which provides an electrical input to the Systems Monitor panel in the galley area. Activate the display to read the level of liquid remaining in each tank by pressing the appropriate push button switch.

WINTERIZING HOLDING TANKS

Drain the holding tanks and add RV antifreeze (several quarts) to each tank through the toilet (into the sewage tank), and through the tub/shower drain (gray water tank).

WINTERIZING FIXTURE TRAPS

In addition to the above, pour a pint of RV antifreeze into the kitchen sink and bathroom lavatory drains.

TOILET

The microphor toilet (12 volt electric or air flush) operates from the fresh water supply, flushing wastes directly into the sewage (body waste) holding tank.

NOTE

A water pump must be on or coach connected to city water to operate toilet.

WINTERIZING TOILET

See toilet user manual in owner's kit.

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APPLIANCES - ADDENDUM

REFRIGERATOR WITH OPTIONAL ICEMAKER

The refrigerator will operate with a source of 120 Volts AC from the shoreline, inverter, or generator. The refrigerator will first attempt to locate this AC voltage, and, if not found, will then attempt to operate in the LP gas mode. If neither AC voltage nor LP gas is present, the refrigerator will set a failure light on the control panel of the refrigerator.

NOTE:

The optional built-in icemaker will operate only if the refrigerator is running on AC voltage (from the shoreline, inverter, or generator).

1998
41'
WANDERLODGE
WLXi
OWNER'S
MANUAL



Limited Warranty Wanderlodge®

Wanderlodge® Division gives this Warranty. The terms "*we*", "*us*", and "*our*" in this Warranty refer to that division. The Warranty extends to the original owner of the Wanderlodge®. The terms "*you*" and "*your*" in this Warranty refer to the owner.

Thank you for purchasing a new Wanderlodge®. Wanderlodge® warrants each Wanderlodge® to be free from defects in factory material or workmanship under normal use and service within the time and mileage limits described below:

1. For a period of (3) years or 36,000 miles, whichever occurs first, from date of delivery to the original purchaser or first placed in service as a demonstrator or company vehicle, whichever is earlier (mileage accumulated while in the possession of the dealer is included in the 36,000 mile total), Wanderlodge® warrants the:
 - a. **Chassis Frame and Crossmembers**
 - b. **Body shell (those structural metal components welded or riveted together forming floor, sidewalls, roof, front and rear sections) including rust-through.**
 - c. **Paint adhesion, except when paint failure is caused by deterioration of paint from weather and exposure or damage to paint after you accept delivery of the Wanderlodge®. This warranty does NOT cover cracks in the paint on rubber fenders and does not cover fading of any paint.**
2. For a period of (12) months from date of delivery to the original purchaser or first placed in service as a demonstrator or company vehicle, Wanderlodge® warrants the:
 - a. **Interior components of the coach such as the following:**
 - Interior fabric
 - Floor covering

- Wall covering
- Cabinets
- Components warranted by other manufacturers are not included in any part of this Warranty. We have supplied to you those separate warranties in your owner's package.

3. From the date of delivery to the original purchaser or first placed in service as a demonstrator or company vehicle, (mileage accumulated while in the possession of the dealer is included in the mileage total) the following power train components will be covered by the manufacturer's warranty for that component.

<i>Engine</i>	<i>Manufacturer's warranty</i>
<i>Transmission</i>	<i>Manufacturer's warranty</i>
<i>Axles</i>	<i>Manufacturer's warranty</i>
<i>Batteries</i>	<i>Manufacturer's warranty</i>

The preceding paragraphs describe everything that is covered by this Warranty. Anything else is NOT covered. Without limiting this general statement about what is covered, examples of such non-covered expenses include:

- Telephone calls
- Loss of time
- Commercial loss
- Inconvenience
- Loss of use of the vehicle
- Towing charges
- Hotel or motel accommodations
- Equipment we do not manufacture or supply
- Maintenance services such as but not limited to:
 - wiper blades
 - oil
 - filters
 - bulbs
 - fluids
 - front end and tag axle alignment
 - brake linings and drums

- Damage from things we could have no control over such as:
 - *collision*
 - *modifications*
 - *misuse*
 - *lack of maintenance*
 - *misuse of electrical systems*
 - *broken glass*
- Any part of the vehicle which fails or malfunctions as a result of work done by anyone other than Wanderlodge®.
- Any equipment added to the vehicle by customer or dealer, or temporary installations at the factory designed to accommodate such additions or alterations, may not be covered by this Warranty.
- Parts or accessories which you or your dealer bought or installed.
- Wanderlodge® makes no warranty whatsoever regarding pneumatic tires. Repair or replacement of defective parts is your exclusive remedy under this warranty.

Wanderlodge® will pay for all parts and labor needed to make necessary repairs due to defects in factory material or workmanship covered under this Warranty.

This Warranty covers the original owner of the Wanderlodge® during the Warranty Period. A transfer fee will be required within 30 days of the sale of the Wanderlodge to transfer the Warranty.

Wanderlodge® reserves the right to make changes in design and changes or improvements upon its products without imposing any obligations upon itself to install the same upon products theretofore manufactured.

In order to have defects repaired under this Warranty, you should promptly take your Wanderlodge® to the dealer who sold it to you or to the nearest Wanderlodge® dealer. (You may obtain the name and address of the nearest dealer by writing or calling us at the address and number set forth below) In the event there is some geographic or mechanical reason you cannot get to a Wanderlodge® dealer, you may (with our prior approval) use any capable and reputable repair facility for the repairs. The Wanderlodge® dealer will

make any needed repairs (or arrange for them to be made) within a reasonable time after you deliver the vehicle to him. You must take the vehicle to the dealer promptly after discovering the defect and, in any event, within the Warranty Period. Warranty claims must be submitted no more than 60 days after repairs are completed.

Defective parts that you have replaced under the Wanderlodge® Warranty must be returned to the factory with your invoice for the new part in order to be credited for the repair work.

You are responsible for properly operating, maintaining and caring for your Wanderlodge® in accordance with the instructions contained in your Owner's Manual.

You are responsible for keeping maintenance records, since in some instances, it may be necessary for you to show that proper maintenance has been performed.

This Warranty applies to those Wanderlodge® which are legally registered and normally operated in the United States or Canada.

ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS, ARE LIMITED TO THE WARRANTY PERIOD OF THIS WRITTEN WARRANTY, AND WE WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. Some states do not allow limitations on how long an implied Warranty will last, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

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

Any lawsuit for breach of this Warranty must be filed within one year of breach.

No one, including the dealer, is authorized to modify this Warranty or to make any other warranty on our behalf. There is no other express warranty on this vehicle. To the extent allowed by law, Georgia Law governs this Warranty and rights arising hereunder.

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INTRODUCTION

This section of your Owner's Manual contains general hints and recommendations for using your motor home. Checklists and suggestions are offered which cover just about every phase of motor home travel.

The remaining sections of this manual describe the operation and use of the individual items and systems which comprise your motor home.

Manufacturer's manuals for components and appliances are included in your owner's kit. Please refer to these for more detailed information.

We hope that this manual will help answer questions that may arise about the use operation and maintenance of your motor home. Any suggestions or recommendations that you might have for including or expanding on material of interest will be carefully considered for incorporation in future publications. We are always interested in providing our coach owners with the most current and comprehensive information about our product.

CHECKLISTS

A little preliminary planning will go a long way to help make your trips successful and enjoyable. As an aid to planning your travels, review the following checklists. If there are any additional items that you should be reminded of, add them where you see fit. These lists are only recommendations based on the experience and suggestions of sources well-versed in motor-coach expertise. You will eventually find that a short "walk-around" the coach, outside and inside, will be adequate and comprehensive enough to ensure that you are ready for travel.

BEFORE YOU LEAVE:

- Store valuables and important papers in a safe place.
- Arrange care for your pets.
- Cover all food to keep out mice and insects.
- Store oil, gasoline, matches and other inflammables properly; get rid of newspapers, magazines and oily rags.
- Connect timers to several inside lamps and outside lights; keep some shades open for a lived-in look.
- Discontinue newspaper, milk and other deliveries; store trash cans and outside equipment.
- If weather permits, shut down hot water and heating systems; close main water supply.
- Ask the Post Office to hold your mail.
- Have your lawn, garden and house plants cared for.
- Arrange with the Telephone Company for discontinued or "Vacation Service".
- Lock all windows and doors securely.
- Leave your key with your neighbor and let them know your basic itinerary.
- Notify police.

CHECKOUT YOUR COACH - OUTSIDE

- Disconnect and stow:
 1. Electrical cord.
 2. Sewer hose (flush out).
 3. Water hose.
- Check all exterior lights for proper operation.
- Check wheel lug nuts for tightness. (See **Tire/Wheel Change Procedure**).
- Check tires for correct pressure. (See **Tire Inflation**).
- Check that all external compartments and filler openings are properly closed and/or locked.
- Check that items stored on exterior of coach are secured. (Be sure that these items present no clearance problems.)

NOTE

If the trip you are planning will take the coach well past suggested maintenance intervals, it may be advisable to perform these procedures before leaving. This may avoid unscheduled stops or interruptions during your trip.

- Check that there are no obstacles to avoid above or under the coach. Be sure that there is sufficient clearance front and rear.

CHECK YOUR AUTOMOTIVE SYSTEMS:

- Check that fluid levels are normal (oil, power steering, engine coolant, windshield washers, transmissions, etc.).
- Check generator oil level, coolant level, battery condition.
- Check operation of turn signals, emergency flasher, stoplights and backup lights.
- Check that headlight high- and low-beams operate.
- Check horn operation.
- Check fuel gauge, and add fuel if needed.
- Start engine and check gauges for signs of trouble.
- Check operation of foot brakes and parking brake.

CHECKOUT YOUR COACH - INSIDE:

- Close windows and vents.
- Check that cabinet doors and drawers are secured.
- Check that refrigerator door latch is in locked position.
- Check that no heavy item is stored in an overhead cabinet.
- Store large items in base cabinets.
- Check that counter tops, range top, table tops and shelves are clear of unsecured items.
- Turn off interior lights; check that entrance step is retracted. Secure and lock the entrance door.
- Adjust exterior mirrors.

WARNING

Mirrors provide needed additional driver visibility. To be effectively used, mirrors must be properly adjusted for each driver and the driver must be aware of the limitations on viewing area that exist even when mirrors are properly used.

AND, BEFORE DRIVING AWAY

- Check operation of appliances and special equipment.
- Check that fire extinguishers are fully charged.
- Check operation of interior and exterior lighting.
- Start generator and check 120 VAC system and wall outlets.
- Adjust driver's seat so that all controls are within easy reach.
- Make sure that seat is locked in position. Do not adjust driver's seat swivel or fore/aft mechanism while vehicle is moving or seat could move unexpectedly, causing a loss of control.
- Check that front passenger's seat is locked in position.
- Fasten seat belts. Belts should be placed as low as possible around the hips. This places the load of the body on the strong hip bone structure instead of around the soft abdominal area and prevents sliding in case of accident.

CAUTION

Child restraint systems are designed to be secured in vehicle seats by lap belts or the lap belt portion of a lap-shoulder belt. Children could be endangered in a crash if their child restraints are not properly secured in vehicle.

- Check that warning lights are lit when the ignition key is turned to on or start position.

SOME ITEMS YOU MIGHT WANT TO TAKE ALONG ON YOUR TRIP

NOTE

You may find that many items taken were not needed and that some items that were needed were overlooked during planning of your last trip. Make notes of these items to prevent duplicating the same errors.

- Adequate supply of prescription medicines.
- Prescription sunglasses or reading glasses.
- Camera equipment and film supply.
- Heating pads, ice bags, etc.
- Stationery, envelopes, stamps
- Telephone number list.
- Reading material
- Special pet supplies.

- Extra toilet chemicals and toilet articles.
- Spare belts for engine operated equipment.
- Spare parts for generator: suggested spares include oil filter, fuel pump, air filter, solenoid. Five quarts of approved motor oil.
- A professional-type double-action tire pressure gauge. (Included in coach.)
- Under the heading of Emergency Equipment, it is advisable to consider outfitting your coach with these items:
 1. First aid-kit
 2. Emergency highway flares
 3. Flashlight or lantern (with extra batteries)
 4. Tool kit
 5. Replacement lamp assortment
 6. Replacement fuse and breaker assortment.
 7. Trouble light with a long cord

AND SOME OTHER THOUGHTS TO CONSIDER

- Automobile insurance to cover you and your family.
- Avoid cash. Use traveler's checks and credit cards wherever possible.
- Confirm reservations well in advance of arrival.
- Make a clothing check list for everyone.

CITIZEN'S BAND TRANSCEIVER

You might also bear in mind that your coach is equipped with a CB unit (Citizen's Band receiver-transmitter). In the event of an emergency situation which requires outside assistance, remember to call for help on Channel 9. This channel is restricted to emergency use only and it is monitored 24 hours per day! Don't hesitate to use your CB if you see someone else in need of assistance.

HOT WEATHER OPERATION

Wherever possible, choose a shaded parking site so that the coach will be cooler during the hottest part of the day. The optional patio awning will be especially useful in lowering inside temperature. Air conditioning units are indispensable in hot climates. Keep in mind that their proper operation depends on adequate line voltage. Low voltage causes motors to run hotter and reduces compressor motor life. Supply voltage in some campgrounds may not be as high as necessary, especially when there are heavy loads on the lines from other air conditioners. Check the right hand overhand auxiliary panel 120 VAC meters when in doubt.

COLD WEATHER OPERATION

If frost or condensation accumulates in closets or cabinets during long periods of cold weather operation, leave the doors to these areas slightly ajar to provide air circulation. Be sure that roof vents are open when using the gas cooktop.

CAMPGROUND COURTESY

Don't forget the "*Golden Rule*". Being considerate of your neighbors will help make friends. A few of the "*Do's*" and "*Don'ts*" are:

- Good housekeeping-put all litter in the proper receptacles and leave your site neat and clean.
- Don't allow your water or sewer hook-ups to leak.
- Respect your neighbor's desire to retire at an early hour. Avoid loud noises and bright lights after dark.
- Drive slowly through camp areas at any hour for the safety of pedestrians.

INSURANCE

As with your automobile, it is important that you have adequate protection with insurance coverage for personal liability, property damage, comprehensive, collision, medical payments, loss of use, etc.

Canadian and Mexican Insurance

Insurance for travel in Canada can usually be covered by your present U.S. policy for the recreational vehicle, often at no extra cost. Consult your individual company for procedures and be sure of your coverage before entry.

For travel in Mexico (at the present time) there are no U.S. insurance companies that can provide recognized Mexican coverage, with the exception of that required for travel through a narrow strip of Mexican territory in and around parts of entry and the U.S./Mexican border.

Mexican insurance is controlled, and rates are set, by the Mexican government. There are several reliable companies handling Mexican insurance, with similar rates for the necessary coverage. The principal differences between them are the "*fringe benefits*", received in the form of informational travelogues and other helpful information, such as dining places considered acceptable for sanitary conditions, fuel stations, and so on.

Some insurance services include detailed route maps with "*where to stay*" recommendations and "*things to see*" mile-by-mile (or kilometer-by-kilometer post). While the rates set by Mexico may seem quite expensive at first glance, you usually end up not spending quite as much as expected because you can usually arrange to hold your state-side policy in abeyance during the same period you are in Mexico, thus not having to pay unnecessarily for double coverage. In addition, you may be able to obtain substantial refunds on the Mexican collision insurance after your return to the U.S. Be sure to obtain a certification from the park operator at each location in Mexico to certify the dates that your coach was parked there. If your coach is parked for most of the time, instead of constantly traveling, your refund may be a major portion of the original cost. This feature is referred to as the "*in-storage*" credit. (It is a good idea to always check with your insurance company before taking a trip to find out whether applicable insurance rules and regulations have changed. Keep up to date on your coverage.)

Carry insurance papers at all times!

SAFETY CONSIDERATIONS

Using LP Gas

Check for leaks at the connections on the LP gas system soon after purchase and initial filling of LP tank; continued periodic checks of the system are recommended. Even though the manufacturer and dealer have already made tests for leakage, this check is advisable because of the vibrations encountered during travel. Apply a soapy water solution to the outside of gas piping connections to find gas leakage (bubbles). Do not use products that contain ammonia or chlorine. Usually, tightening of connections will be sufficient. If not, ask your authorized dealer service to make the needed repairs.

Liquefied Petroleum Gas (LPG) is heavier than air. Leaking gas tends to flow to low places, and will sometimes pocket in a low area. LP gas can usually be detected by an identifiable odor characteristic to garlic.

CAUTION

Never light a match or allow any open flame in the presence of leaking gas!

Be sure that the main LP gas supply valve is closed or galley panel switch OFF during refueling to prevent accidental ignition of gas fumes by appliance ignitors.

WARNING

When coach is to be stored in a confined area, turn off the LPG at the main tank shutoff valve or, more conveniently, at the galley systems control panel.

Your Wanderlodge has been provided with an automatic 80% fill valve to protect you from the dangers of an overfilled LPG tank.

Electrical Systems

Your coach has been engineered and checked for your complete electrical system safety. Circuit breakers and fuses are installed to protect electrical circuits from overloading. Before making modifications or additions to the electrical system, consult your dealer for assistance in obtaining a safe and secure installation.

Do not "jump" circuit protectors!

Emergency Stops

Always carry road flares and/or reflective triangular highway warning markers for emergency warning display. Pull off the roadway as far as possible when changing flats or for other emergency situations. Turn on your hazard warning flashers when parked alongside a roadway, even if only for a short while. Have your coach occupants leave the vehicle and stand clear of the area when parked on the edge of a highway.

In Case of Tire Blowout

Michelin Tire Corp. has tested extensively and recommends the following when a blowout occurs:

1. Quickly step on the gas.

2. Adjust steering as needed.
3. Stay off the brakes.
4. Keep driving until you find a safe place to pull over.

Engine Exhaust Gas

Avoid inhaling exhaust gases because they contain carbon monoxide, which by itself is colorless and odorless. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal. If at any time you suspect that any exhaust fumes are entering the passenger compartment, have the cause determined and corrected as soon as possible.

The best protection against carbon monoxide entry into the vehicle body is properly maintained engine exhaust system, body and ventilation system. It is a good practice to have the exhaust system and body inspected by a competent mechanic each time the vehicle is raised for lubrication or oil change. It should also be inspected whenever a change is noticed in the sound of the exhaust system and if the exhaust system, underbody or rear of the vehicle has been damaged.

To allow proper operation of the vehicle's ventilation system, keep ventilation inlets clear of snow, leaves, or other obstructions.

Sitting in a parked vehicle with the engine on for extended periods, without proper ventilation, is not recommended!

More Safety Considerations

- Sanitize fresh water supply system periodically.
- Prevent water connection fittings from contacting the ground or drain hose to reduce chances of contamination.
- Consider using a qualified technician for repairing gas or electrical appliances.
- Check fire extinguishers periodically for proper charge.
- Avoid overloading your vehicle.
- Be careful not to cause an improper load distribution which can adversely affect roadability.
- Insure that tires are in good condition and properly inflated at all times.
- Under-inflated tires overheat and are blowout-prone!
- Check and tighten wheel lug nuts; manufacturer recommends after first 50-100 miles and every 1,000 miles thereafter.

EMERGENCY EXITS

Sliding windows, which can be easily opened, may be used as an emergency exit. Squeeze the window latch and slide window open. Emergency exit windows are identified by an EXIT decal on the glass.

OWNER'S MANUAL REQUIREMENTS:

The minimum required educational information in the owner's manual shall include:

1. A sample of the weight label's contents affixed to the unit as appropriate.
2. An explanation of the following:
 - Vehicle weight distribution
 - How to weigh the vehicle
 - These definitions:
 - Gross Axle Weight Rating (GAWR)
 - Gross Combination Weight Rating (GCWR)
 - Gross Vehicle Weight Rating (GVWR)
 - Unloaded Vehicle Weight (UWW)
 - Net Carrying Capacity (NCC)
3. Towing guidelines.

MOTORHOME WEIGHT INFORMATION

Model _____

GVWR _____

UWW _____

NCC _____

GCWR _____

GVWR

[Gross Vehicle Weight Rating] means the maximum permissible weight of this motorhome. The GVWR is equal to or greater than the sum of the Unloaded Vehicle Weight plus the Net Carrying Capacity.

UWW

[Unloaded Vehicle Weight] means the weight of this motorhome as built at the factory with full fuel, engine oil, and coolants. The UWW does not include cargo, fresh water, LP gas, occupants, or dealer installed accessories.

NCC

[Net Carrying Capacity] means the maximum weight of all occupants including the driver, personal belongings, food, fresh water, LP gas, tools, tongue weight of towed vehicle, dealer installed accessories, etc. that can be carried by this motorhome.

[NCC is equal to or less than GVWR minus UWW].

GCWR

[Gross Combination Weight Rating] means the value specified by the motorhome manufacturer as the maximum allowable loaded weight of this motorhome with its towed trailer or towed vehicle.

This motorhome is capable of carrying up to _____ gallons of fresh water (including water heater) for a total of _____ pounds. Reference: Weight of fresh water is 8.33 lbs./gal.; Weight of LP gas is 4.5 lbs./gal. (average).

**CONSULT WEIGHT DECAL LOCATED IN COACH
FOR ACTUAL WEIGHTS**

REFER TO SECTION 5 FOR TRAILER TOWING CAPACITIES

VEHICLE LOADING

The Federal Certification Label, located inside and above the driver's windshield between the sun visor mounting brackets describes the maximum weight-carrying capacities of your motor home and for each axle, respectively abbreviated by "GVWR" and "GAWR".

The Gross Vehicle Weight Rating (GVWR) is the maximum motor home weight allowable with all systems filled and with passengers and supplies aboard.

Each axle also has a maximum load-bearing capacity referred to as the Gross Axle Weight Rating (GAWR).

The load capacity is the difference between the GVWR and the actual weight. This means the total weight of all food, clothing, other supplies and passengers, must not permit the load capacity to be exceeded.

To find the actual weight, with the motor home fully loaded, drive to a scale and read the weight on the front and rear wheels, separately, to determine axle loading. The load on each axle should not exceed its GAWR. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.

When loading your motor home, store heavy gear first, keeping it on or as close to the floor as possible. Heavy items should be stored centrally to distribute the weight evenly between the front and the rear axles. Store only light objects on high shelves. Distribute weight to obtain even side-to-side balance of the loaded unit. Secure loose items to prevent weight shifts that could adversely affect the balance and roadability of the vehicle

COACH SERVICE-REPLACEMENT PARTS

A paint color label is located adjacent to the Federal Certification Label above the pilot's sun visor.

Data plates located on the rear of the chassis (raise rear engine compartment door for access) provide information useful for identifying your coach if you are planning on ordering parts. Identification plates provide information such as:

1. Body Serial Number
2. Model Year
3. Body Service Number
4. Chassis Serial Number
5. Chassis Service Number

ECONOMICAL DRIVING

How you drive, where you drive and when you drive — these factors all have an effect on determining how many miles you can get from a gallon of fuel. Careful maintenance will also contribute to fuel economy.

Frequent stops and starts during a trip diminish miles per gallon. Plan even short shopping trips so you can take advantage of through-streets to avoid the traffic lights. Pace your driving like the professional drivers to avoid unnecessary stops.

An idling engine also consumes fuel. If you are faced with more than a few minutes wait, and you are not in traffic, it may be advisable to shut off the engine and re-start later.

A properly lubricated vehicle means less friction between moving parts. Consult the maintenance schedules for proper lubricants, lubrication intervals and general coach maintenance scheduling.

Fuel economy is also related directly to the amount of work accomplished by the engine. Heavier loads require more power. Keep excess weight to a minimum.

CELLULAR PHONE WIRING

A roof mounted antenna and wiring (terminates in driver area) are supplied for cellular phone hookup.

FOG LIGHTS OR DRIVING LIGHTS

Clear fog or driving lamps are mounted stationary in the front bumper. The fog lamps illuminate only with low beam headlights or the driving lamps illuminate only with high beam headlights, provided the corresponding dash switch is activated.

TRAVELING IN YOUR MOTOR HOME

NOTES

1. Overall height is approximately 12 1/2 feet.
2. It is recommended that compartment doors be locked so they do not open while in transit. There are many modern recreational vehicle parks with good facilities, including State, County and Federal Parks, where electrical, water and sewer connections are readily available. Directories are published which describe these parks in detail and list available services and hookups.

On overnight or short weekend trips, your motor home has more than adequate holding tanks and water supply capacity in the event that campgrounds or parking sites are not equipped with these facilities.

On longer trips, where sewer connections and utility hookups are unavailable, it will be necessary to stop from time to time to dispose of holding tank wastes and replenish the water supply. Many gas stations (chain and individually-owned) have installed sanitary dumping stations for just this purpose.

When stopping for the night, park the coach in a location that is relatively level and where the ground is firm. This will ensure your comfort as well as the leveling of your refrigerator (for most efficient operation)

Making a long trip is not very different from making a weekend excursion since everything you need is right at hand and you are home wherever you travel. When packing for an extended trip, try to avoid taking non-essential items.

When planning to stay in the same location for several days, weeks, or even months, be sure to maintain the motor home level. Use leveling jacks system for this purpose.

Hook up to the water supply by attaching the water hose to the commercial water supply inlet.

Plug the electrical cable into the shoreline receptacle. Be sure to observe all grounding and connection precautions!

Connect sewage hookup into the disposal facility.

WINTER TRAVELING

- Certain precautions should be taken when traveling in your motor home during the cold winter months. Keep these suggestions in mind:
- Provide heat in the coach at all times.
- Have a plentiful supply of LPG and diesel.
- If your stay is longer than overnight, and you do not use the generator, try to have a shoreline hooked up to outside AC power.
- Minimize your use of electricity if 120 vac is unavailable.
- Leave cabinet doors and wardrobe doors slightly open at night to allow for proper air circulation.

Remember that low temperatures in combination with high winds will cause an equivalent chill temperature much below that indicated by your thermometer. For instance, with an outside temperature of zero degrees, and a wind velocity of 10 miles per hour, the equivalent chill temperature would be -20 degrees F!

There is no substitute for common sense when traveling in cold weather.

GENERAL STORAGE NOTES

Drawing draperies will reduce fading of rugs and upholstery. Leaving an air freshener agent will minimize odors from plastics and other materials. Slight opening of windows and vents will allow air circulation without worry of water entering. Covering wheels to eliminate direct rays of the sun on tires will reduce sidewall cracking.

NOTE

Remove all items from the coach which may freeze, including canned foods, miscellaneous liquids, etc. Remove all contents of the refrigerator/freezer, clean unit and leave doors ajar.

REPORTING SAFETY DEFECTS

If you believe your vehicle has a safety 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 Blue Bird Wanderlodge.

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 Blue Bird Wanderlodge.

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.

AIR CONDITIONING/ DEFROSTING SYSTEM OPERATION

ROOF AIR CONDITIONING

The ducted system includes (3) three 13,500 BTU air conditioning units with condensate drains.

Operation: * 120 VAC is required from either generator or shoreline. The thermostat is located in the dinette area with remote temperature sensors located in the front and rear of the coach. Refer to the operator's manual in owner's kit for detailed operating instructions.

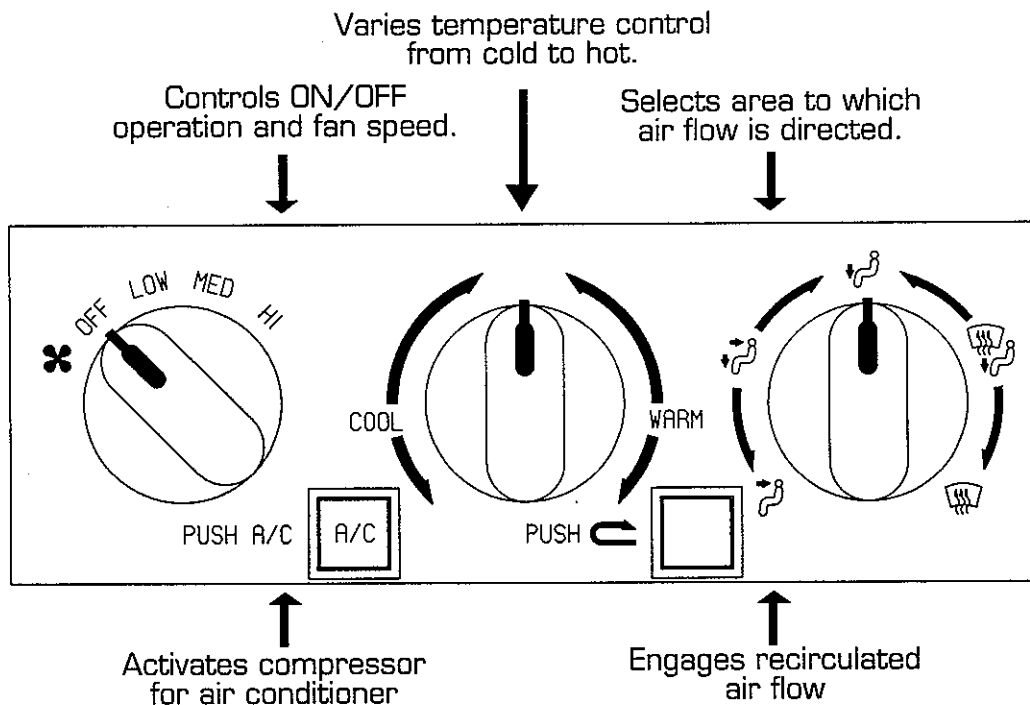
Refer to your Dometic "Comfort Control Center" manual for detailed operating instructions.

***NOTE:**

One air conditioner may be operated from the inverter system.

CHASSIS AIR CONDITIONING

The 30,000 BTU system has an engine driven compressor. Automotive style controls are located on the right hand side of the dash panel.



CAUTION

For proper defroster operation, do not block areas between defroster vents and windshield.

NOTE:

In hot weather, it is recommended to run the roof air units while traveling to help control the heat load inside the coach. This will require running your generator while traveling.

AIR PRESSURE SYSTEMS

INTRODUCTION

The air pressure system on your coach is supplied by an engine driven compressor. It provides pneumatic power for brakes, suspension, and numerous accessories. This complex, but efficient system is not intended to be totally leak free. After overnight parking, you may notice a significant loss of pressure on the air pressure front/rear gauge, or in systems connected to auxiliary air. This condition is normal, and in fact, our air leakage tolerance is tighter than most manufacturers within the heavy duty equipment industry. Once the engine is running, the engine driven compressor will quickly build up the system to the correct pressure.

AIR BRAKES

Your motor home is equipped with dual service air brake systems for front, rear and tag axle brakes, with integral fail/safe operation; and manual/automatic rear spring (parking) brakes. The service brakes are completely independent systems, each including a reservoir and separate distribution lines and valves. The reservoirs are pressurized from a single compressor. Both service brake systems are brought into operation each time the brake treadle is depressed to slow or stop the coach. Reservoir pressure for each service brake system is monitored by a respective pressure gauge on the front panel; system failure(s) are indicated by low pressure readings, illumination of the Low Air failure lamp and sounding of buzzer.

OPERATION

When the coach is parked, and the engine off, the rear spring brake will normally be set by operating the parking brake. The spring brakes cannot be fully released until the air pressure is above 65 psi. These brakes are in the released position when the control is pushed in. In the event that there is a loss of air pressure, the spring brakes will set automatically, at the brake-applied position, and will not release until the air reserve has again built up to required value. Consequently, there will be a normal delay, after the coach is first started, while the compressor builds up pressure before the brakes can be released and the coach driven. When the brake treadle is depressed, to slow or stop the coach, reservoir air is applied simultaneously to both front and rear service brakes to effect the braking action. The spring brakes are held in a released position by the air pressure supplied from the associated reservoir tank.

CAUTION

Do not attempt to drive the coach until system pressure is above 90 psi.

BRAKE FAILURES

To compensate for normal lining wear, each brake system is individually self-adjusting. Protection against brake system failures is provided by fail/safe features. If the front brakes fail, operating the brake treadle still activates the rear service brakes to provide stopping capability.

If a failure occurs in the rear, the front service brakes and rear spring brakes provide braking action.

In the unlikely event of a failure where both service braking systems are disabled, the rear spring brakes will apply automatically and bring the vehicle to a stop. As a safety factor, the coach should not be moved until any type of brake failure is corrected.

NOTE

With the front brake system service reservoir fully charged, enough air pressure is available to provide for four full releases of the rear spring brakes. This will allow the coach to be brought to a safe position until repairs can be accomplished.

AIR SUSPENSION SYSTEM

Air suspension bags cushion the front and rear axles. Ride height is automatically maintained by height control valves. Dumping these air bags when the vehicle is parked allows the rubber bumpers to come together and eliminate vehicle springiness. Two switches, located on the top right side of the LOWER DASH PANEL, control dumping and filling of the respective air bags. The SUSP. DUMP switch controls the front, rear and tag axle suspension; the TAG DUMP switch controls the tag axle only.

NOTE

The accessory air tank must contain at least 65 PSI pressure for the DUMP switch to function. The accessory air tank pressure does not register on the dash air pressure gauges.

Moving the SUSP. DUMP switch away from the UP position applies air pressure to air pilot-operated valves on the suspension system. The pilot air shifts the valves, cutting off the air supply to the air bags and allows the air in the bags to escape. After the suspension system has been dumped, and the ignition is turned on, a warning pilot light is illuminated on the dash to warn the driver that the system is dumped and not to drive the vehicle until the SUSP. DUMP switch is set to the UP position.

Refer to the manual in your owner's kit for additional information and maintenance instructions.

NOTE

The TAG DUMP switch may be used to dump the tag axle, only, for close quarter maneuvering or for added traction on the drive wheels. This switch must be in the UP position for normal operation.

ADDITIONAL AIR-OPERATED EQUIPMENT

Besides providing the compressed air supply for the coach braking and suspension systems, the compressor also provides the air supply for the entry step, front air vents, stepwell cover, tag axle, and waste dump system all via separately controlled solenoid switches operated from the dash, or at other locations throughout the coach. (This compressed air source is furnished from the front right side reservoir.) A compressed air outlet fitting and air gun are contained in a center storage compartment on the road side of the coach, convenient for inflating tires, and so on. A schrader valve (air connection) is available in the engine compartment to allow the air system to be pressurized from a "shop" source without the necessity of starting the engine.

AIR STEP SPEED ADJUSTMENT

The adjustments for the entrance step are located under the center portion of the step and are combined with sintered bronze exhaust filters. The extend adjustment is close to the center of step and the retract adjustment is to the rear.

To adjust the extend or retract function, loosen the lock nut (7/16" wrench) and turn adjustment with blade type screw driver as follows. To increase speed turn counter-clockwise. To decrease speed turn clockwise. When adjustment is complete tighten lock nut.

COMPRESSED AIR SYSTEM AIR DRYER

The air dryer unit collects and removes moisture and contaminants from the compressor air output before the air reaches the reservoirs. This unit is different from a reservoir drain or an after cooler in that it provides dry air for the brake system by eliminating the possible accumulation of condensate in the system reservoirs. Note that each reservoir also has a drain cock on the bottom for draining accumulated moisture. This assures a long maintenance-free life for air brake system components due to the removal of system contaminants.

The air dryer is located between the compressor discharge (output) line and the compressed air reservoirs. A safety valve mounted in the air dryer housing assembly protects against excessive pressure buildup. The desiccant cartridge and pleated paper oil filters are easily removable and replaceable as a complete serviceable unit. The desiccant "Beads" which provide the drying action have a large capacity for absorption due to their combined surface area. In addition, an internal thermostatically-controlled heating element prevents freeze ups on the purge rail valve when the unit is used during sub-freezing temperatures.

Purging of the dryer is automatic, exhausting combined oil and water residue to the atmosphere. At the same time that the contaminants are purged, the reverse air flow across the desiccant material removes the accumulated moisture and reactivates the desiccant. Refer to Bendix Air Dryer Service Data Manual for more detailed information.

APPLIANCES

INSTANT HOT

Provides an additional hot water source at the kitchen sink. Switch is located in the kitchen base cabinet. Operates from generator or shoreline.

ICE MAKER

The ice-maker, located in the kitchen base cabinet, is designed to provide a continuous automatic supply of ice cubes. It will operate unattended providing the water supply line is open and AC power is applied to the unit. The water supply cutoff valve is located at the distribution manifold. The AC power may be supplied from shoreline, generator or inverter.

OPERATION

1. Put the ON-OFF Switch, located behind the hole at the top of the front grill, in the ON position.
2. Open the water supply valve, located under the kitchen sink.

The compressor will start. As soon as the ice maker mold reaches the proper temperature, the ice maker mechanism will fill the mold with water. The first cubes may be small because of air in the water line. Subsequent cubes will be of standard size. Approximate time for the first cycle is 45 minutes.

The following suggestions are made for best results.

- When the ice bucket is full, the ice making mechanism will shut off but the refrigeration system will continue to cycle to maintain the cube supply.

IMPORTANT

Never use an ice pick, knife, or other sharp instrument to separate cubes.

- During periods of limited usage or high ambient temperatures, it is common for cubes to fuse together. Ruffle cubes as needed.
- If ice maker is not used regularly, the ice bucket should be emptied periodically to ensure fresh cubes.
- It is normal for cubes to appear cloudy. This is nothing more than air being trapped in the water due to fast freezing. It has nothing to do with the health, taste or chemical make-up of the water. It is the same air that is in every glass of water you drink.
- To provide for higher ice rate (production of more cubes), adjust the temperature control to a warmer setting. If hollow cubes result, adjust temperature somewhat colder. For less cube production, adjust to a colder setting.

NOTE

Use a flat tip screwdriver to turn adjusting screw, located behind front grill, clockwise for colder or counter-clockwise for warmer.

- Cube size may be adjusted by changing the amount of water injected into the ice maker assembly.
 - A. Remove the ice maker assembly cover.
 - B. Locate the adjusting screw on the ice maker assembly control box. The adjusting screw is just below the minus (-) and plus (+) signs on the control box.
 - C. Turn the adjusting screw toward the minus (-) sign (clockwise) for smaller cubes or toward the plus (+) sign (counter-clockwise) for larger cubes.
 - D. Install the ice maker assembly cover.
- To stop ice production, but maintain the existing ice supply, manually raise the bin arm to the full up position.

PERIODIC CLEANING AND MAINTENANCE

- The unit is not frost free and must be defrosted periodically. To defrost, turn the unit OFF, remove cubes and prop door open at least two inches. To speed defrosting place pans or trays of hot water inside the unit.

CAUTION

DO NOT use any type of electrical heating device, ice pick, knife, or other sharp instrument to defrost, as this would damage the inner lining and void the warranty.

- Avoid the use of solvent cleaning agents, abrasives, and all cleansers that may impart taste to the ice cubes. The exterior may be cleaned with cleansers and polish as used on fine furniture.
- The front grill should be kept free of dust and lint to permit free air flow to the condenser.
- The condenser coil, located behind the front grill, should be cleaned three to four times each year. Using a brush or vacuum cleaner, remove dirt, lint and other accumulations from the condenser coil.

The condenser fins are SHARP. DO NOT run hands over condenser fins.
- The solenoid valve inlet screen must be cleaned at least once each year as follows:
 - A. Shut off the water at the water supply valve, located under the kitchen sink.
 - B. Remove the entire hose connector from the solenoid valve.
 - C. Use a toothbrush to clean sediment from the inlet screen. DO NOT remove the screen.
 - D. Attach the hose connector to the solenoid valve. Tighten connector securely with pliers. Open the water supply valve and check for leakage at the hose connector.

STORAGE

If the unit is to be stored or not used for extended periods, it will be necessary to drain the system of water.

1. Shut off water supply at the main water source.
2. Disconnect the water supply line from the solenoid valve.
3. Disconnect the water line from the solenoid valve outlet.
4. Allow the unit to run for an hour or more to drain all the water.
5. Dry out excess water from the ice maker assembly.
6. Prop the door open at least two inches.
7. Disconnect unit from main electrical power source.
8. Leave water supply line and power cord disconnected until ready to reuse.

NOTE

The use of anti-freeze or other products of this nature is not necessary and is not recommended.

REFRIGERATOR/FREEZER

See refrigerator operator's and owner's manuals (owner's package).

COOKTOP (RANGE)

The gas supply for the cooktop burners is provided from the LPG tank. The cooktop is equipped with a 120 volt electric igniter. Refer to the manual in your owner's kit for detailed operating instructions.

MICRO/CONVECTION OVEN

The microwave/convection oven provides programmed microwave cooking, convection operation for crisp, even broiling, or a combination of both. (See the manual in your owner's kit for detailed operation and caution notes.) Operates from shoreline, generator, or inverter

ELECTRIC GRILL

The electric grill is stored on a slide out tray in the curb side rear luggage compartment.

NOTE: Grill will not operate unless grill and tray are in the fully extended position.

To use the electric grill, pull on tray to release tension latches at rear of tray. Pull grill and tray to its fully extended position. Ensure that the electrical plug is secure in receptacle and all components of the electric grill are in correct position. Refer to instruction manual on appliance (supplied in coach) for important safeguard and general cooking tips.

To store grill turn grill off and let unit cool down completely. Push grill and tray back into closed position and insure tray is secured by tension latches. Use tie down strap to secure top in stowed position.

CAUTION: Insure that grill is cooled completely before storage and that no flammable materials are stored in close proximity to stored grill.

CHASSIS SPECIFICATIONS

ACCELERATOR CONTROL

Electronic Accelerator with Transmission Computer Link Up for Precise Shifting.

AIR COMPRESSOR

16.5 CFM capacity @ 1250 RPM, Gear Driven

AIR RESERVOIR

Three tanks with 1760 cubic inch capacity and one tank with 1240 cubic inch capacity.

ALTERNATORS

12 Volt negative ground 300 amp

AXLES

14,600 # Front; 23,000 # Drive, Single Speed, 4.69 (Standard) Ratio; 11,500 # Tag; All Wheel Bearings Oil Lubricated.

BATTERY

Three 12 Volt, 1075 cold cranking amps maintenance free batteries wired in parallel.

BRAKES, EMERGENCY

MGM 36" Magnum Piston Type Spring Brake System with Treadle Valve Control – Separate Instrument Panel Mounted Valve provided for parking.

BRAKES, ANTI-LOCK

A Bendix four-channel system which controls the steer and drive axle system along with a standalone single channel system for the tag axle.

CRUISE CONTROL

Combined with DDEC III Engine Control

DRIVE LINE

Spicer 1810 Series with Protective Guard Around Shaft

ELECTRICAL SYSTEM

12 Volt

ENGINE

Detroit Diesel Series 60, 500 HP at 2100 RPM

EXHAUST SYSTEM

16 Gauge Aluminized Steel with Heavy Duty Muffler (6 inch diameter - inlet & outlet)

FUEL FILTER

Racor Fuel Filter Water Separator and Preheater Secondary Filter at rear of engine

FRAME

Channel 10-1/8" high with 3-1/2" flanges made of 5/16" 50,000 PSI steel, section Modulus - 14.8 In.³ Channels doubled in high stress area - Section Modulus 40.9 In.³

FUEL TANK

300 gallon capacity

GROSS VEHICLE WEIGHT RATING

48,900 lbs. max.

HORN

Dual Electric and Dual Air with Selector Switch

OIL FILL & CHECK

Located at rear of engine on curb side.

SHOCK ABSORBERS

Direct acting, Double Action Piston Type; Front, Drive and Tag

STEERING GEAR

Ross Model HFB-70 with 23.3 to 1 ratio with Integral Power Steering and Tilt and Telescoping Steering Wheel.

SUSPENSION

Ridewell Air Suspension, 14,600 # Front, 23,000 # Drive and 11,500 # Tag. Front and Drive Systems Utilize 4 Air Springs Each, Tag System Utilizes 2 Air Springs.

TIRES

Tubeless 31580R22.5 16-Ply rating Michelin Steel Cord Radial with XZA tread.

TURNING RADIUS

* CURB RADIUS _____ (not available at time of printing)
** WALL RADIUS _____ (not available at time of printing)

- * Curb radius is the distance from the center of the turn to the outside edge of the front tire.
- ** Wall radius is the distance from the center of the turn to the outside edge of the front bumper

NOTE

Turning Radii is with Standard 31580R22.5 tires

TIRE/WHEEL CHANGE PROCEDURE

The wheel/tire assemblies used on your motor home are heavy-duty truck-type. They are heavy and may be difficult to handle. If at all possible, changes should be accomplished by a service station equipped to handle truck equipment. However, if a situation arises where no service facilities are available, the following procedures may be used.

CAUTION

Severe injury or death may result. DO NOT use the leveling system for changing tires or working under the vehicle. Keep the rear wheels in firm contact with the ground with the parking brake set. With the leveling jacks extended, there is a possibility the vehicle may move either toward the front or the rear.

NOTE

Jack and lug wrench are not furnished with coach. An outside drive axle wheel may be used to replace front or tag wheel until permanent replacement can be made. Road speed must not exceed 40 MPH.

FRONT AXLE WHEELS

1. Drive motor home out of traffic lane onto a level surface capable of supporting jack.
2. Turn on hazard flasher and apply parking brakes before leaving coach.
3. Turn off ignition and set transmission selector to Neutral (N) position.
4. Remove white plastic wheel saver from luggage compartment.
5. Place wheel chocks against front and rear of tires on opposite side.
6. Place jack under axle and raise slightly until securely in place.

CAUTION

Bumpers are not designed for lifting and/or towing of the vehicle.

7. Pull off lug nut covers.
8. Install wheel saver.

NOTE

It is recommended that the wheel saver be used when loosening or torquing lug nuts.

9. Loosen lug nuts slightly, then jack up coach until tire is clear of ground. Solidly support the vehicle under the main frame rails with jack stands or blocks before working under or around the coach.

NOTE

Lug nuts on right side of coach are right hand threaded (turn counter-clockwise to loosen, clockwise to tighten); lug nuts on driver's side of coach are left hand threaded (turn clockwise to loosen, counter-clockwise to tighten).

10. Remove lug nuts and wheel assembly.
11. Install spare and replace lug nuts. Tighten progressively in the sequence shown on lug nut tightening sequence diagram, starting with #1 and proceeding to #10. Final torque will be 450 to 500 foot-pounds. Wheel must be on ground for final torque.
12. Snap front hub cover into front wheel opening after front lug nuts have been properly torqued.
13. Place lug nut covers on all lug nuts. Make certain that these nut covers fit snugly. This is accomplished by squeezing the dimpled sides together before installing.
14. Lower coach to ground and remove jack and handle.
15. Replace wheel saver, lug wrench, jack and handles in storage compartment and tie down to prevent road noise. Return damaged wheel/tire assembly to holder and have it repaired as soon as possible.
16. Remove and stow wheel chocks.
17. Turn off hazard flasher before returning to traffic.

DRIVE AXLE DUAL WHEELS

1. Repeat steps 1 through 10, front axle wheels.
2. Loosen inner lug nuts (studs with square heads), if inner wheel is to be replaced.
3. Remove outer lug nuts from the (5) studs which have lock rings and slide hub cover over remaining lug nuts.
4. Remove the (5) remaining lug nuts and wheel.
5. Remove inner lug nuts and inner wheel, if inner wheel is to be replaced.
6. Install replacement wheel and inner lug nuts. Tighten progressively, in the sequence shown on lug nut tightening diagram, starting with #1 and proceeding to #10. Final torque should be between 450 and 500 foot-pounds.
7. Install outer wheel (or replacement wheel) and lug nuts over inner lug nuts marked 1, 3, 7, 9 and 6. Torque nuts in the following sequence 1, 7, 6, 3 and 9 to between 450 and 500 foot pounds.
8. Install hub cover over the (5) lug nuts holding wheel to hub. Place lock rings and lug nuts on remaining inner lug nuts 10, 5, 2, 4 and 8.
9. Replace wheel saver.
10. Torque nuts in the following sequence 10, 2, 8, 5 and 4 to between 450 and 500 foot-pounds. Wheel must be on ground for final torque.
11. Return to step 13 of Front Axle Wheels and continue.

NOTE

When checking torque on dual wheels loosen all outside lug nuts. Check torque on inner lug nuts (studs with square heads) for torque value shown above then torque outer lug nuts to value shown above.

TAG AXLE WHEELS

1. Repeat steps 1 through 9, front axle wheels.
2. Remove lug nuts from the (5) studs which have lock rings and slide hub cover over remaining lug nuts.
3. Remove the (5) remaining lug nuts and wheel.
4. Install replacement wheel and lug nuts on studs marked 1, 3, 6, 7, and 9.
5. Torque nuts in the following sequence 1, 7, 6, 3 and 9 to between 450 and 500 foot pounds.
6. Install hub cover over the (5) lug nuts holding wheel to hub. Place lock rings and lug nuts on remaining studs 10, 5, 2, 4 and 8.
7. Replace wheel saver.
8. Torque nuts in the following sequence 10, 2, 8, 5 and 4 to between 450 and 500 foot pounds. Wheel must be on ground for final torque.
9. Return to step 13 of Front Axle Wheels and continue.

CAUTION

Check lug nuts for tightness every 1,000 miles. Lug nuts should be torqued to 450 to 500 foot-pounds.

TIRE INFLATION - TOWING - TRAILER

TIRE INFLATION

Under-inflation causes needless tire wear and promotes excessive fuel consumption. Check tire pressures on a regular basis.

The Federal Certification Label, shows the cold tire inflation pressures necessary to support the Gross Axle Weight Ratings.

These pressures can be reduced to greatly improve the ride quality after the actual axle weights have been determined (see Vehicle Loading in the Introduction Section).

The chart below is taken from the Michelin Tire Data Book and shows the recommended tire inflation pressures for various axle weights. If any axle weight is on the borderline, always use the higher pressure. Be sure weight is distributed evenly, side to side.

LOADS PER AXLE (lbs.) AT DIFFERENT PRESSURES										
2 TIRES: SINGLE (S) 4 TIRES: DUAL (D)										
INFLATIONS PRESSURE (psi)										
MICHELIN SIZE - 31580R22.5 MAX. SPEED - 65 MPH										
psi	70	75	80	85	90	95	100	105	110	115
lbs. S	10,800	11,930	12,090	12,810	13,350	13,990	14,620	15,260	15,900	16,540
D	18,700	19,800	20,950	22,450	23,460	24,580	25,850	26,830	28,200	29,540

In addition, a tire inflation information plate is located inside the road side luggage compartment near the air gauge and hose. These are normal pressures as long as the axle weights are not in excess of those shown.

TOWING

Two towing eyes are provided behind the upper part of the generator door. Remove generator panel for access.

CAUTION

Do not tow a vehicle equipped with Allison automatic transmission unless the drive shaft has been removed, or the rear wheels raised from the ground. Do not attempt to tow unit by front axle or crossmember. Damage to wiring and/or air lines can result because of proximity of these items to front crossmember. Do not tow with generator tray extended. Do not tow by the bumpers. Air pressure is required to release brakes.

TRAILER HITCH CAPACITY

The Receiver Type Hitch and Drawbar are rated for a 10,000 lb. maximum towing capacity and a 1,000 lb. maximum tongue weight capacity.

Standard equipment includes a 2" hitch ball with a 1" shank rated for a 5,000 lb. maximum towing capacity and 500 lb. maximum tongue weight. Hitch ball nut must be torqued to 200 ft. lb.

NOTE

For more towing capacity, we offer an optional 2 5/16" hitch ball with a 1 1/4" shank rated for a 10,000 lb. maximum towing capacity and 1,000 lb. maximum tongue weight. Hitch ball nut must be torqued to 200 ft. lb.

UPPER DASH PANEL

NOTE

Some items operate at all times, some require the 12 volt master (A/T switch) to be on, while others need the 12 volt master and the ignition on. Gauges marked with an * require the engine to be at normal operating temperature for correct readings.

***WATER TEMPERATURE**

Normal: 180 degrees to 210 degrees F
Monitors engine coolant temperature.

CAUTION

If the engine temperature gauge indicates excessively high temperatures, the engine may be overheating and should be stopped to prevent damage. Allow the engine to cool before checking the radiator coolant level.

***OIL TEMPERATURE**

Normal: 200 degrees to 250 degrees F
Gives a constant reading of the engine oil in the supply line from the pump. If the temperature goes over 250 degrees, the engine may be low on oil or there is overheating of the cooling system.

CAUTION

Your Wanderlodge is designed to operate at ambient temperatures up to 100 degrees F with no problems. If temperatures greater than 100 degrees F are encountered, the operator must closely observe engine water and oil temperature and transmission oil temperature to avoid overheating conditions. If overheating conditions occur at ambient temperatures less than 100 degrees F, the cooling system must be checked and problem corrected.

***OIL PRESSURE**

Normal: 50 to 70 psi at cruising speed, 5 psi minimum at idle. This gauge indicates the pressure of the oil, not the amount of oil in the engine reservoir.

CAUTION

No oil pressure, or low oil pressure readings (below 25 psi) when engine is operating at cruising speeds are trouble indications! DO NOT Operate the Engine Under These Conditions!

AIR PRESSURE FRONT/REAR

Normal: 110 to 135 psi

The Dual Air Service Brake Pressure systems are engine operated and supply independent brake system air pressure for front and rear service brakes and the parking brake. During normal operation, each air pressure gauge reading will build up to 110 psi to 135 psi shortly after the engine is started. Note that, as a safety feature, the parking brake cannot be released until air pressure readings are at least 65 psi.

FUEL LEVEL

Indicates the amount of diesel fuel remaining in the tank. Note that the generator also gets its fuel supply from this tank. The gauge reads only when the ignition switch is in ON position. As a precaution against generator operation draining the fuel supply, the generator fuel pickup is shorter than the engine pickup. Separate fuel filters are provided for each fuel line.

ALTERNATOR/CHARGER AMPS

Shows charging amps of alternator. When parked, with a source of 120 vac (shoreline or generator) the gauge will show a total output of the battery charger.

DC VOLTS COACH

Normal: 13.8 to 14.2 VDC

Monitors the actual voltage at the coach batteries with the engine running.

DC VOLTS ENGINE

Registers the actual voltage at the engine batteries. With the engine running, gauge should read 14 volts (± 0.5).

LOW FUEL

When this light comes on the operator should begin looking for a refueling station.

LOW AIR (LIGHT & BUZZER)

These warn the driver that there is an insufficient supply of air (65 psi or less) to properly operate the coach. If the air pressure is low, when the ignition key is turned on, the light and buzzer will come on immediately. Both warnings will continue until the air pressure is built back up, or the ignition key is turned off.

ACCESSORY

This blank position may be used for the installation of an additional switch for customer add-on equipment.

CAUTION

Use existing panel holes for installation of additional controls or indicators. Drilling new holes will destroy the electroluminescent lighting.

A/T

(Anti-Theft) deactivates the starting system for protection against unauthorized cranking and theft. This switch also provides 12V master switch operation to shut off 12V battery power to all circuits except digital clocks, radio memory, monitoring panel functions, refrigerator control system, and burglar alarm.

ENGINE ALARM

This red light with the word FIRE will come on when signaled by over temperature sensors in the engine compartment and will sound a buzzer.

HEADLIGHT ALERT

When the ignition switch is turned off while headlight switch is on, this warning light, along with a buzzer, will come on. These will remain on until the headlight switch is turned off or the ignition switch is turned back on.

LOWER DASH PANEL

NOTE

Some items operate at all times, some require the 12 volt master (A/T switch) to be on, while others need the 12 volt master and the ignition on. Gauges marked with an * require the engine to be at normal operating temperature for correct readings.

SPEEDOMETER

Indicates speed and accumulated mileage (odometer). This is a solid-state electronic monitor.

TACHOMETER/HOUR METER

Indicates actual engine RPM (Revolutions Per Minute) when scale (0-40) reading is multiplied by 100. Idle RPM should be 600 and full load (uphill) 2100 RPM. May go to 2425 RPM under no-load conditions (downhill). HOURMETER shows number of hours engine had been in operation.

TAG AXLE PRESSURE

Monitors the tag axle suspension pressure. Factory set at 60 psi.

CAUTION

Before driving, check gauge to make sure there is pressure in the tag axle air bags. This is critical for proper coach axle weight distribution. Applying brakes with tag axle suspension not inflated will likely cause tire skid and "flat spotting".

TRANS. OIL TEMPERATURE

Indicates temperature of the transmission oil. If the WARNING LIGHT comes on slow down or reduce load.

HIGH BEAM INDICATOR

The Blue Bird logo is illuminated when high beam is selected using steering column switch.

ACCESSORY WARNING LIGHTS

WATER IN FUEL

This light comes on when there is an excess of water in the bottom of the fuel tank.

SUSP. DUMP

Light comes on to indicate that the suspension system has little or no air, and that the suspension needs to be pressurized before the coach is driven. See Air Pressure System.

LEVEL WARNING

This light comes on when any of the four (4) leveling jacks are not fully retracted.

TURBO PYROMETER

Registers the temperature of the exhaust gas output of the Turbo. The correct temperature of the exhaust should be around 700-800 degrees F at power.

***TURBO BOOST**

Registers the pressure of the Turbo Compressor outlet. The gauge should read an approximate maximum of 30 psi at maximum power.

COMPARTMENT LOCK

Actuates (optional) electric locks on compartment doors. Doors may be opened with key or actuated from key pad by entrance door or compartment lock/unlock switch by entrance door.

MIRROR/WINDOW HEAT

This switch turns on a thermostatically controlled heater in the right and left outside mirrors (convex mirrors excluded). With the switch ON, the mirror/window heaters will automatically come on to defog the mirrors.

ACCESSORY

These blank positions may be used for the installation of an additional switch and indicator light for customer add on equipment.

CAUTION

Use existing panel holes for installation of additional controls or indicators. Drilling new holes will destroy the electroluminescent lighting.

REAR PARKING

This switch controls the on-off operation of the rear parking lights (rectangular halogen lights on the rear of the coach) when transmission selector lever is in R. An indicator next to the switch lights when the rear parking lights are on.

HYDRONIC HEAT

The hydronic heat switch activates the diesel fueled portion of the Aqua-Hot heating system. Once activated, it takes approximately 30 seconds for the diesel burner to ignite. Allow 20-30 minutes for the system to reach operating temperature upon initial activation. The diesel fueled portion of the Aqua-Hot system may not be required when moderate ambient temperatures exist and/

or when there is a low demand for domestic water heat, as the electric heating element is capable of maintaining operative temperatures of 175 to 195 degrees Fahrenheit under these conditions.

GENERATOR AUXILIARY BATTERY

A two-position switch - OFF and momentary ON. The momentary on position connects the generator battery and coach batteries to aid in generator starting should this need arise.

LEFT LANDING

At the ON position this switch turns ON the landing lights on the left side. Note that a small green indicator lights when the lights are on.

RADAR MASTER

Turns on power to radar detector. The RADAR DETECTOR is a high-sensitivity superheterodyne microwave radar detector. This unit, is designed to activate when transmission are received from radar-type speed detection equipment.

NOTE

Because some states have ruled radar detection equipment illegal, it is the responsibility of the driver or owner to obey the appropriate laws. (There are quick-disconnect features provided which allow for easy removal of the unit.)

See **Radar Detector Owner's Manual** for additional instructions.

GEN AUTO START

Optional switch location for activating the generator auto start system. (See Optional Equipment Section.)

RIGHT LANDING

At the ON position this switch turns ON the landing lights on the right side. Note that a small green indicator lights when the lights are on.

DASH DIMMER

This control will only operate when the headlight switch is in the on position. The background lighting (electro-luminescent) for the dash can be dimmed by turning counter-clockwise and brightened by turning clockwise.

HEADLIGHTS

The Headlight switch serves two functions. Press P for parking lights and gauge illumination. Press the bulb symbol for headlights, parking lights and gauge illumination. The dimmer controls brightness of all gauges in dash. Turn counter-clockwise to increase or clockwise to decrease the brightness.

aisle lights

This switch allows you to turn the aisle lights on or off from the pilot's chair.

LEFT TURN

When the turn signal lever is pulled down into the left turn position, this indicator flashes in conjunction with the outside directional lights.

The left cornering light will come on continuously if the headlights or the parking lights are turned on while the turn signal lever calls for a left turn.

FAN OVERRIDE

This switch operates the engine cooling fan in the engine compartment. Normally, this fan will operate at 125 to 400 RPM from an engine RPM of idle to 2100. If the coolant temperature reaches 195 degrees F, the fan will be thermostatically controlled to run at 1800 RPM. To override the thermostat, turn the fan override switch ON, and the engine cooling fan will turn 1800 RPM continuously at any temperature. The indicator light shows the fan override is engaged.

AUXILIARY BATTERY

A three-position switch — On, Off, and Momentary On. The Momentary On position connects chassis and coach batteries to aid in engine or generator starting should this need arise. The On position connects both sets of batteries to the battery charger and is primarily intended to maintain all batteries during long-term storage. The Off position is the normal position while the coach is in use either driving or parked.

SUSP. DUMP

Switch for main suspension air. See **Air Suspension System** for operation.

DOOR LOCK

Switch used to enable or override the top plunger lock on entrance door when coach is selected into gear.

AIR COMPRESSOR MASTER

This switch operates the auxiliary air compressor (optional equipment) which is a 120 vac operated back up air compressor. See **Optional Equipment** for additional information.

TAG AXLE DUMP

Switch for tag suspension air. See **Air Suspension System** for operation.

HORN SELECTOR

Allows selection of the air or electric horns when the steering wheel horn button is depressed.

BACK UP ALARM

This switch, in the ON position, enables the back-up alarm buzzer when transmission selector is in R.

WIPER DELAY

Knob adjusts wiper speed from 2 to 20 sweeps per minute when intermittent operation is selected at steering column switch.

AUX. STEP

An ON-OFF switch when set to the EXTENDED position with the ignition off, activates a relay locking the outside entry step in the EXTENDED position. When the ignition is turned on, the entry step automatically retracts when the door is closed. The indicator reminds you that your step is extended.

HAZARD

This switch turns on the emergency flashers. When switch is used, both left and right turn signals will flash in unison.

THE HORN

See **Musical Horn** for operation.

RIGHT TURN

When the turn signal lever is pushed up into the right turn position this indicator flashes in conjunction with the outside directional lights. The right cornering light will come on continuously if the headlights or the parking lights are turned on while the turn signal lever calls for a right turn.

The indicator, along with the left turn indicator and all outside directional lights, flash in unison when the HAZARD switch is pressed to the ON position.

LO WASH FLUID

Light indicates when there is approximately 1/4 fluid level remaining in the fluid reservoir. See Windshield Washers for additional information.

UPPER RIGHT HAND DASH PANEL

LIGHTER

Depress to heat the element; pops out when hot.

DOOR LOCK

Switch used to lock and unlock the dead bolt lock on the entrance door.

COLD START

An ether injection system used to aid starting the engine in cold weather. To activate valve, depress switch for three seconds to fill valve then release switch to inject charge into engine. Allow three seconds before starting engine.

CAUTION

Use only for starting engine and inject just prior to cranking.

A/C HEAT CONTROLS

See Air Conditioning/Defrosting System Operation (Section 1-1)

LOWER RIGHT HAND DASH PANEL

IGNITION SWITCH

A four-position, standard-type key switch. In OFF position (center), ignition and accessory positions are disabled and the key can be inserted or removed. In ON position (right) the battery is connected to the engine-run ignition circuits (with A/T switch on) and the key can be advanced to START to start the engine, providing that the transmission selector is in neutral N position, and toggle switch in engine compartment is in FRONT position. The accessory position is not used.

SHIFTER & ARMREST PANEL

SHIFTER

This is the push button shift selector made available with the Allison Transmission Electronic Control (ATEC). See Transmission Section for detailed description.

CRUISE CONTROL

These three switches operate in the following manner: The switch on the left turns the cruise control on or off. The switch on the right locks the cruise control in on the desired cruising speed and permits resetting at a lower speed following a previous setting. The switch in the middle permits returning to cruising speed following disengagement by stopping and also permits obtaining a higher cruising speed.

NOTE

The coach must be traveling at least 35 MPH before the cruise control will operate properly.

When the desired speed is reached, press the ON-OFF switch to the On position, then press the Set-Coast switch to the Set position and hold for two seconds before releasing. The coach should automatically remain at that speed. If a lower cruise speed is desired, press the Set-Coast switch to the Coast position and hold until the desired cruising speed is obtained. Release the switch immediately. The coach should remain at the new speed.

Following disengagement of the cruise control by braking, the previously set cruising speed may be obtained by depressing the Resume-Accel switch to the Resume position for two seconds. Note that the coach should be at or above 35 MPH before attempting the Resume function. In addition, if the ignition switch has been turned off, the previous cruise speed will be erased from memory and the new cruise speed will be that speed when the Resume switch was pressed.

If a higher cruising speed is desired and the cruise is enabled, press the Resume-Accel switch to the Accel position. The coach will begin to accelerate. When the higher desired cruising speed is obtained, immediately release the Accel switch. The coach should remain at the new speed.

NOTE

If retarder becomes activated, it will disable the cruise control.

MAP LIGHT

This switch controls On-Off operation of the reading lights above the driver.

CLEARANCE LIGHTS

This switch controls the operation of the clearance, identification and marker lights. The switch has three positions and each position has the following function. In the ON position the lights will remain lighted continuously. When the switch is in the middle (OFF) position, these lights are turned on by the headlight switch. The MOM OFF position is to flash lights as a courtesy signal when the headlight switch is ON.

FOG/DRIVING LIGHTS

Switches for fog lights or driving lights. Fog lights will only operate while headlights are on low beam. Driving lights will only operate with headlights on high beam.

ABS WARNING

Will illuminate when ignition is on and extinguish after moving several feet. When traveling, will illuminate if problem is detected but not impede normal braking.

DO NOT SHIFT WARNING

Will illuminate if problems are detected in the transmission.

RETARDER

Refer to **Transmission Section**.

CAUTION

Drilling new holes will destroy the electroluminescent lighting.

ENGINE MONITOR**HIGH IDLE**

This switch when turned to On, increases the engine idle speed to approximately 1200 RPM. This will provide a faster engine warmup and also provide better cooling when stopped in traffic with chassis A/C on.

NOTE

Your motor home is equipped with an engine shutdown protection feature.

ENGINE SHUTDOWN PROTECTION FEATURE

The engine will shutdown within 30 seconds after the stop engine lamp illuminates. The engine will power down from 100% throttle to 70% throttle immediately, Power reduction will continue to reduce to 50%. The stop engine override switch can be used to reset the 30 second shutdown sequence (must be depressed prior to engine shutdown) with a maximum power of 50%. This

shutdown protection feature will begin when limits of oil pressure, oil temperature, coolant level or coolant temperature are exceeded.

STOP ENGINE

Indicates when a potential engine damaging condition has been detected.

STOP ENGINE OVERRIDE

This switch momentarily overrides DDEC engine shut-off system.

CHECK ENGINE

Indicates that a problem has occurred.

TRANS TEST

ATEC has a built-in diagnostic system. If any problem should develop, the Check Trans. light will come on.

A Detroit Diesel Allison service facility will immediately be able to determine the cause by pushing the momentary Trans. Test rocker switch. The Check Trans. light will then blink out the code for the problem. For codes, refer to diagnostics card furnished in the owner's kit.

ELECTRIC MIRROR ADJUST

Each switch controls both left and right mirror heads. Rotate the switch either left or for the left mirror or right for the right mirror. Pushing the switch knob to the left rotates the selected mirror to the left, pushing the switch knob to the right rotates the selected mirror to the right, pushing the switch knob up rotates the selected mirror up, and pushing the switch knob down rotates the selected mirror down. The two switches provided control the upper (flat) and lower (convex) section of each mirror, as marked. The mirrors also contain a heating element to help prevent fogging over in inclement weather. The switch for the heater element is located on the lower dash panel.

AC MASTER

These switches allow the driver to start or stop the roof air conditioners from the dash area while driving.

PILOT'S OVERHEAD

DASH PANEL

ENGINE PREHEAT

This switch engages the engine preheat pump in the Aqua-Hot heating unit, circulating the engine's coolant through the engine preheat loop, warming the engine for easy starting. Allow approximately 1 - 2 hours of engine preheating time (longer for colder ambient temperatures). The pump can be allowed to operate overnight if desired.

SUPPLEMENTAL HEAT

The Aqua-Hot's engine preheating system acts as a supplemental heating source, in addition to the diesel burner and electric heating element. While traveling, the engine's heated coolant will automatically pass through the engine preheat loop, transferring heat into the Aqua-Hot's heat tank. This feature reduces the total operating hours of the diesel heater.

NOTE

**Do not operate
the engine preheat circulating pump while traveling.**

WATER PUMP

Switch for "Demand" water pumps in fresh water system. Indicator light shows when pumps are enabled.

DASH DIMMER

This control will only operate when the headlight switch is in the on position. the background lighting (electro-luminescent) for the overhead dash can be dimmed by turning counter-clockwise and brightened by turning clockwise.

SPOTLIGHT

The roof-mounted remote-control high intensity spotlight is operated by the SPOTLIGHT controls. The spotlight produces 130,000 BCP (beam candle power) and can be turned on and off, positioned horizontally or vertically at an adjustable rate of speed, and can be used for spot- or flood-lighting. The following controls operate the spotlight:

SPOTLIGHT BEAM SELECTOR SWITCH

Depressing left side of switch turns on both lights in the FLOOD mode. Right side position selects SPOT mode. Center position is OFF.

SPOTLIGHT SPEED CONTROL

Adjusts speed of light head movement during aiming function.

SPOTLIGHT AIM CONTROL

Controls horizontal and vertical beam position of light.

CLOCK PANEL

This panel includes a digital readout. Four switches to the left of the display set clock timing. To set TIME display, press HR SET/MIN SET switch to HR SET position and hold until correct hour is displayed; repeat with switch in MIN SET position until correct minutes are displayed.

The ELAPSED TIME display will show elapsed time in terms of hours and minutes, or in minutes and seconds, depending on the position of the HRS/MIN-MIN/SEC switch. Set this switch as desired, press ZERO or reset the display to a 00:00 readout, and the elapsed time will count. The HOLD/GO switch may be set to HOLD position to suspend operation of the elapsed time display; for elapsed time operation, leave switch in GO position.

GENERATOR START/STOP

See **Generator Section** for operating instructions.

TRIP ODOMETER

Indicates miles driven since last reset. Depress bar to reset.

FUEL VACUUM GAUGE

Racor fuel filter element should be changed when pointer goes over 10 inches HG vacuum. See Racor Fuel Filter.

GENERATOR OIL PRESSURE

Shows the oil pressure, not the amount of oil in the generator engine reservoir. This gauge will normally read between 30 and 60 psi. Low oil pressure indications are often a symptom of possible generator failure. Oil level should be checked on a regular basis. Note that the generator has a low-oil pressure shut-off switch which activates if the generator oil pressure falls below 15 psi.

GENERATOR WATER TEMP.

Displays generator engine coolant temperatures. Normal operating temperatures vary from 160 to 200 degrees F. If consistently high temperatures are indicated, shut down the generator, wait for the engine to cool, then check radiator coolant level. Note that the generator has a high-temperature shut-off switch which activates if the generator temperature reaches 208 degrees F.

D.C. AMPERAGE

Ammeter on left (labeled CHARGE) shows net current flow to or from batteries. Needle movement from the center of the gauge indicates discharge to the left and charge to the right. When parked, following highway travel, it is normal to see a needle position to the left of center even when plugged into shore power (or running generator). This will gradually diminish and should eventually show some movement to the right with coach loads turned off.

Ammeter on right (labelled COACH LOAD) shows current demand of 12 volt load.

CO-PILOT OVERHEAD DASH PANEL

A.C. VOLTAGE

Voltmeter on left monitors LEG ONE while that on right monitors LEG TWO of 120 volt alternating current circuits.

CAUTION

Appliances can be damaged by low voltage. Loads should be balanced so voltage does not drop below 110 volts for either leg. Low campground (shore power) voltage can be detected quickly from gauge readings. If cause of low campground voltage can not be corrected, generator power will have to be used during periods of high appliance demands.

A.C. AMPERAGE

Ammeters show current flow in LEG ONE (left) and LEG TWO (right) of 120 volt alternating current circuits. POLARITY NORMAL indicator (yellow), lights whenever the shoreline hookup is properly connected and grounded and line polarity is compatible with coach wiring and a POLARITY REVERSED indicator (red) lights when hookup is reversed.

A faulty ground connection is indicated if none of the LEDs are lighted.

WATER IN FILTER

Light and buzzer alarm indicates that excess water is in the Diesel Fuel Filter (Racor).

ANTENNA SWITCHES

Both switches must be pushed simultaneously to cause raising or lowering of TV antenna. Indicator will light and a buzzer will sound when TV antenna is up from the secured position when ignition switch is turned on.

ACCESSORY

These blank positions may be used for the installation of an additional switch and indicator light for customer add on equipment.

CAUTION

Use existing panel holes for installation of additional controls or indicators. Drilling new holes will destroy the electroluminescent lighting.

SAFELINE ALARM

The Safeline alarm operates whenever the shoreline is connected to the coach and the ignition switch is in the ON position as a reminder to disconnect the shoreline before driving away.

With the Safeline switch ON, the alarm is given by buzzer sound and red light. The buzzer can be deactivated in favor of a flashing amber light by turning off the switch. In addition, this alarm will operate whenever the TV antenna is not fully retracted.

POLARITY MONITOR

Indicates whether you have normal or reversed polarity when hooked up to shore power.

CO-PILOT SYSTEMS

CONTROL PANEL

STEPMASTER

If it is desirable for the step to be left in the extended position, for repeated trips into the coach, the Step Master may be switched.

NOTE

When air pressure drops below 65 psi the entrance step will extend and lock into place. The step will not retract until sufficient air pressure has built up.

CB VOLUME

Controls the volume of the CB.

STEPWELL COVER

Controls the IN/OUT movement of the stepwell cover.

NOTE

If air pressure drops below 65 psi while the stepwell cover is manually retractable.

STEPLIGHT

Three position switch controlling lights in stepwell area.

DOOR LOCK

Activates the dead bolt lock on the entrance door.

RIGHT PORCH

Operates all exterior right hand side porch lights.

LEFT PORCH

Operates all exterior left hand side porch lights

UPPER LIGHTS

Controls the fluorescent lights above the living room overhead cabinets.

LOWER LIGHTS

Controls the fluorescent lights under the living room overhead cabinets.

CO-PILOT

Controls the co-pilot reading light.

CO-PILOT READING

Controls the co-pilot reading light.

COMPARTMENT LOCK

Controls the compartment door locks.

CEILING SPOTTERS

Controls the halogen lights in the ceiling.

CEILING ACCENT

Controls vista lights in the ceiling.

WINDOWS ACCENT

Controls vista lights in the window boxes.

PANEL LIGHT

Controls backlighting of entrance door switch panel.

SPEAKER IN/OUT (OPTIONAL)

Controls exterior speakers for patio sound.

GALLEY SYSTEMS CONTROL PANEL

The systems monitoring and control panel is located in the kitchen base cabinet. This panel provides a convenient means of displaying level of potable water supply, holding tanks, and LPG supply, as well as other functions discussed in the following paragraphs.

GENERATOR

Start-Stop switch; refer to **GENERATOR SECTION** for operating instructions.

PUMP

Switch for "Demand" water pumps in fresh water system. Indicator light shows when pumps are enabled.

LPG MASTER

Switch provides convenient means for controlling LPG supply to coach. Eliminates necessity of operating exterior LPG mechanical service valve, especially while refueling.

TANK MONITOR

The Tank Monitor panel provides an illuminated readout of the content level of the pure water, gray and waste water tanks, and the LPG tank level. Use the features of this panel as follows:

1. Monitor Pure, Gray or Waste Tank levels by depressing the respective button. The content level in the tank is indicated by five sets of lit readings. The E lamp, at the left of the display, is lit all the time; if the next indicator is lit, the tank is approximately 1/4 full; if the center indicator is lit, tank is between 1/2 and 3/4 full; if the 3/4 indicator is lit, tank is between 3/4 and full; and if the F indicator is lit, tank is full. IF only the E indicator is lit, the tank is between empty and 1/4 full.
2. LPG tank level can be monitored in the same manner as the water tank level by depressing the Propane Tank button. Note that this display is precalibrated. However, if it is necessary to recalibrate the display, this can be done when the tank is full by setting a rear-panel adjustment. Note that the display will read Full when the LPG tank float reads 80% because the remaining 20% volume is needed for vapor space.

BEDROOM PANEL

The bedroom panel located in the overhead cabinet or beside the bed, contains the following:

GENERATOR

Refer to **Generator Section** for operation.

LIGHTS

AISLE switch controls the aisle lights and FLUO controls the fluorescent lights in the bedroom only. The latter is three way with the light switch on the bedroom wall.

SECURITY

LOCK switch controls the dead bolt entrance door lock. LIGHT switch illuminates left and right hand landing lights. Panic switch trips the burglar alarm, to turn off the system use the key chain wireless transmitter.

ALARM CLOCK

Set the clock by depressing the Fast or Slow Set button until the correct time is shown. PM is indicated by lighted dot in the upper left corner. The dot in the center of the display marks the seconds. Set alarm as follows: depress Alarm Display button then depress the Fast or Slow button to set the alarm time. Dot in upper left corner will light when alarm is set for PM. After setting the alarm, release Alarm Display button to return to the normal time mode. To activate the alarm feature, depress Alarm On/Off button to On; to shut off the alarm, depress Alarm On/Off button and release so it pops out to Off.

NOTE

When 12 volt power has been interrupted (batteries disconnected or electronic Master switch turned off) clock display will flash "12:00". Reset clock to eliminate flashing. Alarm will also have to be reset.

ELECTRIC DRAPES

Open or close the bedroom drapes.

INVERTER PANEL

Refer to **Electrical Systems Section** for operating instructions.

DRIVER & CO-PILOT AREA

HORN

Operate the horn by pressing in on the center section of the wheel. Select air or electric horn with the HORN SELECTOR switch on the dash.

COMBINATION TURN SIGNAL/HIGH BEAM AND WASHER/WIPER SELECTOR

Push lever toward dash for right turn signal, pull lever away from dash for left turn signal. Pull lever up toward steering wheel and hold for momentary high beam. When lever is released, low beams are activated. Push lever back away from steering wheel to go to high beam operation. The washer ring is located at the end of the lever and when pushed, activates the windshield washer. To activate the wiper twist lever from -O- position to 1 or II for continuous speeds or to INT for intermittent operation. When in INT position the delay of the wipers can be changed by the wiper delay knob on the lower dash panel. Twist lever back to -O- position to turn wipers off. Ignition must be on to operate the wipers.

Check windshield washer reservoir fluid level periodically and use a prepared washer solution if possible. (Note that low reservoir levels are indicated by a dash monitor light.) During freezing weather, use a solution additive, or a solution specifically designed for cold weather usage. The washer reservoir is accessible through the front road side storage compartment.

TILT LEVER

Pull lever up to release lock mechanism. While holding lever up, adjust the steering wheel to a comfortable position and release lever. Move the steering wheel slightly to make sure the column locks into position.

CAUTION

Always make sure that the lever is in the fully locked position in whichever detent setting is used. Do not change the wheel tilt setting while the coach is in motion.

TELESCOPING STEERING WHEEL

To unlock the telescoping wheel, twist center section of steering wheel counter-clockwise and adjust wheel to comfortable position. While holding steering wheel at desired position with one hand, lock it into position by turning the center section of wheel clockwise.

PARKING BRAKE

The Parking Brake control is located under the lower dash, to the right of the steering column. Note that the parking brake cannot be released unless the system air pressure is at least 65 psi. Pull to set and push to release.

AIR HORN FOOT SWITCH

Operates highway horns. Located on the floor to the left of the steering column.

ACCELERATOR PEDAL

Controls engine fuel flow to select power output. See Diesel Engine Section for detailed description.

BRAKE PEDAL

The coach is equipped with a dual air brake system which includes independent systems for the front and rear service brakes. A separate reservoir and panel mounted pressure gauge is provided for each service brake system. Refer to Air Brake System Section.

SEAT CONTROLS

Electrically operated six-way seat adjustments are built into the pilot's and co-pilot's seats.

Three electric SEAT CONTROLS are used to control seat bench tilt, up-down and front-back seat movement. These seats may be rotated by a knob in the arm rest. A lever on the outboard side of seats controls back tilt. An additional switch controls lumbar support.

DEAD BOLT LOCK OPERATION, ENTRANCE DOOR

The entrance door has an automotive style two position catch. The second position is required for FMVSS certification. For maximum security and minimum wind noise be sure the door is fully closed. A dead bolt lock is also provided for your security, however it will only engage and retract if the door is fully closed. Should you inadvertently open the automotive latch with the dead bolt engaged, you will have to shut the door to retract the dead bolt.

Dead bolt can be activated from switches located on the upper right hand dash panel, the entrance door systems control panel, and the bedroom control panel.

KEYLESS ENTRY

A keypad is located adjacent to the entrance door. By entering a preset code, the entrance door deadbolt is unlocked. This keyless entry system will also unlock the electric locks on the luggage compartment doors.

Your Wanderlodge Keyless Entry System permits the locking and unlocking of your entrance door (Electric Deadbolt Lock Only) and the electric luggage compartment door locks. Both of these door systems also have manual key locking and unlocking which will permit you to override the electrical locking system.

To unlock the entrance door, enter the five-digit combination code via the externally mounted keypad (the keypad will illuminate to aid visibility at night). Note: If more than five seconds elapse between button pushes, the system will time out, requiring that you start over. You will hear the electric solenoid engage and unlock the deadbolt immediately after you enter the fifth digit of your combination code.

To unlock the electric luggage compartment door locks, enter your code as described in the above paragraph and then within five seconds, depress the 3/4 button on the keypad. You will hear the electric solenoids engage and unlock the luggage compartment doors immediately after you depress the 3/4 button.

To lock both the entrance door and the electric luggage compartment door locks, depress simultaneously the 7/8 and 9/0 buttons on the keypad. You will hear the electric solenoids engage locking the entrance door and the luggage compartments.

In addition to using the combination supplied with your system, you may also program in a second code of your choice. This code must be five digits in length. Note: If for any reason the door lock module senses a loss of coach voltage, or you turn off the electronic master switch, this second code will be erased from memory and the factory pre-programmed code only will be active. To program a second combination code, enter your factory code as described in the section "To unlock the entrance door..." and then within five seconds depress the 1/2 button. Then within five seconds of each other, depress five buttons in any sequence you choose. Wait six seconds before depressing any other button. Your system is now programmed for the second code. To erase the second code, enter your factory code and then depress the 1/2 button, wait six seconds, the code is

ELECTRICAL SYSTEMS

There are two interrelated electrical systems used in your motor home ... the 12 volt DC supply system; and the 120 volt AC supply system. The 12 volt DC system is divided into several branches, or zones, each functioning from the common 12 volt battery source. One branch provides the 12 volts required for the automotive starting, ignition and lighting systems; remaining branches supply those motor home circuits and appliances which require 12 volts DC for operation.

The 120 volt AC system includes those motor home appliances which require 120 volts for their operation, supplied from either the internal generator, or from the external 120 volt AC (or a split 240 volt AC) supply, via the shoreline hookup. The inverter will supply 120 volt power from the coach batteries to selected circuits.

12 VOLT DC SUPPLY SYSTEM

Wiring diagrams of the 12 volt supply and distribution system are included in the Illustrations and Diagrams Section.

The 12 volts supplied to all motor home appliances, outlets and accessories is routed from the batteries through a main 12 volt master switch (A/T) and routed through buses to the individual branches, or zones, that are serviced from this supply. Circuit breakers are located behind the co-pilot's overhead compartment, lower front load center (behind removable panel outside front of coach) and at each of the zones. The circuits supplied and fuse or circuit breaker protection at each zone are shown on the diagrams.

COACH BATTERIES

Four (4) 12 volt Marine/RV Deep Cycle batteries are located on a fixed tray in the "tag axle" compartment on the curb side. These will provide 8.4 hours of operation, at a 25 ampere rate, when a charging source is not available.

NOTE

Roll-out tray is retained in stored position by a quick release pin with button on top. Be sure to reinstall pin after battery service.

BATTERY CHARGING

The 12 volt coach battery supply, is maintained fully-charged by either the engine alternator (when engine operates); or by battery charger. The engine battery system is normally charged by the alternators only. The coach and engine battery systems are separated by a relay to prevent deterioration of voltage in the event of one or the other supplies becoming defective.

In the event of a failure of either battery system, the systems may be tied together through the above relay by the aux. battery switch on lower dash. The momentary position of the switch should be used for cranking engine. The ON position should only be used for charging engine batteries by the battery chargers.

Batteries can become discharged because of coach 12 volt loads, while parked, without a 120 volt AC source. For overnight stops this presents no problem, with judicious use of 12 volt service, because the engine alternators will recharge the batteries rapidly during the next day's travel. When operating from shoreline or generator power, the batteries obtain the major portion of the charge during "sleeping" time, while coach loads are low, so that the battery charger can "top off" the batteries.

If it is planned to leave the coach parked without exterior power for two days or longer turn off the Electronic Master switch (in addition to the A/T) located in the pilot's front over head cabinet. This will ensure that there is no drain from the circuits which remain on when the A/T switch is Off (clock, memory and LPG leak detector).

While in transit, the DC volts gauges on the upper dash panel should reflect an alternator regulated setting of 14 volts (+ 0.5). When parked, with 120 volt source supplied, the DC VOLTS COACH gauge should read between 12.5 and 14.0 volts depending upon load. When parked, without 120 volt source, do not permit voltage to drop below 11.5

After a trip, ALTERNATOR/CHARGER AMPS ammeter may show some discharge reading, even when 120 volt source is supplied, if there is a load on the 12 volt coach circuits. The Float type battery charger operates in the 13 - 14 volt range when there is a load.

AC SUPPLY SYSTEM

Motor home AC-operated appliances are supplied from either an external shoreline hookup or from the on-board generator. Selection of shoreline or generator power source is determined automatically by a remote changeover switch located in left center road side compartment above cable storage shelf. The 120 VAC circuits are normally supplied by the shoreline power cable. Whenever the generator is started, the automatic changeover switch will detect the generator voltage and will switch to the generator in approximately 25 seconds.

CAUTION

Use of excessively long and improperly rated extension cords may cause your auto changeover system to fail prematurely.

If you must use an extension cord, follow these guidelines:

- for 30 amp receptacles: **USE 10 GAUGE WIRE**
- for 50 amp receptacles: **USE 6 GAUGE WIRE**

CAUTION

After connecting to shoreline power, check your AC voltage gauges and make sure they show at least 110 volts present on the system. If not, disconnect immediately or you will cause premature failure of your auto changeover.

NOTE

Occasionally you may hear a slight humming or buzzing noise coming from the vicinity of your auto changeover or relay contractor box. This is completely normal behavior.

POWER LINE MONITORS

Dual power line monitors are located on the co-pilot over head dash panel, to monitor the voltage and amperage in both legs of the AC shoreline supply (or generator supply). The monitors have a polarity and ground detector circuit to indicate possible electrical hazards due to incorrect hookups.

An additional power line polarity monitor is located in the shoreline/utility box. Refer to **Shoreline Operation Section**.

AC CIRCUIT BREAKER AND DISTRIBUTION PANEL

The main AC Distribution Panel is located in the bedroom behind the mirrored door on the curb side.

CELLULAR PHONE WIRING

A roof mounted antenna and wiring (terminates in driver area) are supplied for cellular phone hook up.

INVERTER

One 3000 watt Trace 3000 inverter with integral battery charger is located in the right hand center compartment. The inverter will power all accessible outlets in the coach as well as the ice maker, televisions, microwave oven, opera light, and 120 volt fluorescent lights as long as the power demand is below 3000 watts. There is one remote control panel for control and status of the inverter located on the wall adjacent to the pilot seat.

LOAD MANAGEMENT

There are five important 12v system gauges located in the driver's area which, if properly understood and occasionally monitored, will ensure proper operation and prevent an inconvenient and possibly damaging situation of discharged batteries.

On the upper dash are:

- Engine volt gauge for three engine batteries.
- Coach volt gauge for four coach batteries. Proper charger operation while parked will keep batteries between 12.5 and 14.0 volts depending on load.
- Alternator/charger Amp gauge shows alternator output while driving or charger output while parked with 120 VAC service from shoreline or generator.

On the overhead dash are:

- DC amperage gauge (labeled CHARGE) shows net output from the battery charger or alternators to the batteries.
- DC amperage gauge (labeled COACH LOAD) shows the amount of 12v current being consumed by coach systems.

The sum of these two readings should approximate the alt/charger amp reading. Be sure, with load management techniques, that coach load does not exceed charger capacity. This is easily determined by ensuring; (1) DC amperage (charge) gauge shows positive reading, and (2) upper dash coach volt gauge does not drop below 11.5 volts. Should battery voltage fall below this range, remember:

1. The auxiliary battery switch on lower dash may be helpful in starting the engine or the generator as needed.
2. **Battery voltage below 9v will damage fluorescent light bulbs and possibly the light ballast. Turn off fluorescent lights with low battery voltage!**

STORING THE COACH

If you plan to store your coach without 120 v power for (2) days or longer, be sure to turn off your master (A/T) switch, the electronic master and inverter at both shifter panel and inverter switches. Your objective is to minimize power drain.

With both masters off, you can still expect a battery discharge of 2-4 amps because of non-mastered circuits to refrigerator, and engine/transmission control circuits.

For storage over a (3) week time period, disconnect your batteries if there is no shore power available for the battery charger. The best storage technique is to turn off both master switches, turn off the inverter at both switch locations and run your battery charger 24 hours per week. This procedure will keep batteries up but avoid a damaging overcharge condition.

NOTE: Do not attempt to charge the batteries or start the coach with the battery disconnect switch OFF! The charger will output detrimental AC ripple voltage which could cause damage to RVDC electronics!

ENGINE, DIESEL

IMPORTANT

Always consult your Detroit Diesel and Allison owners and operators guides before operating vehicle. These manuals and ATEC and DDEC III diagnostic code cards are furnished in your owner/operator kit.

NOTE: In the event your Detroit Diesel Engine service technician must use a diagnostic reader to perform tests on the engine computer, access to the diagnostic connector may be obtained by removing the driver's auxiliary control panel (the one with the remote mirror adjust switches) from the front of the shifter box. The diagnostic connector is attached to the side approximately six to ten inches from the front.

TO START ENGINE

Detroit Diesel Engines will start at temperatures above 10 degrees F (-12° C) without using a starting aid. However, for cold temperatures it will be helpful to activate the engine block heater (120 volt AC-operated). The ENGINE BLOCK HEATER is controlled by a switch located in the kitchen base cabinet. Remember to turn the switch OFF after starting. Refer to Detroit Diesel Manual in your owner's kit for starting instructions.

When outside temperature is below 35 degrees F (+2° C), turn on ignition switch for a minimum of 10 minutes, so Racor fuel filter heater element can warm the fuel, before starting engine.

1. As soon as the engine starts, reduce engine speed to low idle. After normal oil pressure is indicated, HIGH IDLE may be used to build up air pressure more rapidly.
2. Do not apply a load to the engine or increase engine speed until oil pressure gauge indicates normal.
3. Operate the engine at low load until all systems reach operating temperatures. Check all gauges during warmup period.

REMOTE ENGINE STARTING

Because it may sometimes be necessary to start the diesel engine remotely, a separate key switch is located on the right side of the engine compartment. Be sure the hinged switch cover is snapped back in place after key withdrawal to prevent moisture damage. Toggle switch must be down (REAR) to start from engine compartment.

TO STOP ENGINE

CAUTION

Before stopping the engine, operate at low idle for a minute or so. This will allow hot areas in the engine to cool gradually and extend engine life.

Refer to **Detroit Diesel Manual** for additional information.

FUEL TANK

If Water-In-Fuel light on dash comes on, open petcock at rear of sump on the bottom of tank to drain. Fill fuel tanks after completing a run. Partially-filled tanks will collect moisture if the coach is allowed to sit for an appreciable length of time.

FUEL ADDITIVE

Fuel Additive Recommended for use with #2 Diesel Fuel ... US Borax Biobor JF Fuel Additive to use per 100 gallons ... 2.8 fl. oz.

ENGINE AIR FILTER

Check the air filter condition indicator, on a regular basis. Sometimes the red band will show after a high power run. This is a normal condition. Reset to green band and run engine at a maximum of 2000 RPM. Filter should be replaced if red band is shown. WL P/N 1570415, (ECO-SM) (Disposable).

CAUTION

Do not operate the engine without the air filter in place or sensitive air metering systems may be damaged.

CRANKCASE OIL LEVEL CHECK

The oil level must be checked only with the engine off. Maintain oil level at the proper fill line. If checking oil level immediately after engine has been operating, allow a few minutes for the oil to drain back into the crankcase before checking the oil level reading.

The best time to check the oil is before getting underway because the engine is cool and the reading will be most accurate.

Check crankcase oil level before starting and when refueling. Refer to Detroit Diesel books in your owner's package for further information.

FUEL FILTERS

A Racor fuel filter/water separator is incorporated in the diesel fuel supply line and processes the fuel supply for maximum purity. It is located on the curb side of the engine compartment.

The fuel filter/water separator includes a built in Racor in-filter disc pre-heater, which operates automatically below 35° F, (+2° C), when ignition switch is on, from the 12 volt DC battery supply, and a water sensor, which lights a dash indicator and sounds a buzzer when the water level in the bowl is high enough to require drainage. (See Racor Manual for additional information.)

When fuel vacuum gauge goes over 10 inches HG vacuum, replace element with WL P/N 3831310 (Racor 2020SM); also gasket (large) WL P/N 3747359 (Racor 11007), T-Handle WL P/N 3747342 (Racor) 11350)

A secondary fuel filter is located on the rear of the engine. This element is WL P/N 6082390 (AC TP916D).

OIL FILTER

Oil filter is located under engine on road side. It should be replaced at each oil change. WL P/N 6082408 (AC PF2100).

COOLANT

Open rear engine door and check coolant level (with engine cool and off). Fill with coolant mixture to the top of the surge tank sight glass.

Coolant Specification:

50% water, 50% low silicate ethylene glycol base antifreeze (formulation standard GM 6038-M)

Coolant Additive:

NALCOOL 2000

Coolant Filter:

WL P/N 6082416 Detroit Diesel 23507545

POWER STEERING & HYDRAULIC COOLING FAN

RESERVOIR FLUID LEVEL CHECK

Regularly check fluid level in the power steering and hydraulic cooling fan reservoir. The oil reservoir is the large canister located right rear engine compartment. Add only Rando (Texaco) HD32 oil as necessary to maintain the correct dipstick reading, depending on fluid/engine temperature. (Note that dipstick is attached to the bolt on top of the reservoir). If the fluid is at normal operating temperature ... about 150 degrees, and hot to touch ... the dipstick should indicate 1/2 to 3/4 full. If engine cool, fluid level should read about 1/2 full.

CAUTION

The hydraulic fluid used in this unit is Rando (Texaco) HD32 Oil. Do not use conventional power steering fluid or the pump may be damaged. Filter oil through a 10 micron filter, run engine with fan on at idle for 10 to 15 minutes. Replace filter in hydraulic reservoir. Run engine and fan again. Check reservoir and add oil as necessary.

CAUTION

When inspecting or servicing engine or other components in engine compartment the engine control switch must be placed in OFF or REAR position to prevent starting of the engine from the driver's area.

WARNING

Cooling fan is driven by hydraulic pressure and by the air conditioner compressor drive signal. Flow is controlled electrically by a thermostat which senses engine coolant temperature. Any time the engine is running, the fan may engage and start without warning. Also on hydraulically driven fans, the fan may start and run for several seconds when the engine is shut off or if electrical power is interrupted. Shut off engine and wait for fan to stop before servicing.

Power Steering and Hydraulic Engine Cooling Fan Maintenance

Specification	Rando (Texaco) HD32 Oil
Capacity	20 quarts
Reservoir Element	WL P/N 4524393 (Filter Kit) BB P/N 1764133 (3 reqd.)

ENGINE COOLING SYSTEM REFILL

Use of low silicate ethylene glycol base antifreeze (formulation standard GM 6038-M) is recommended for summer or winter operation because of its corrosion inhibition and lubrication properties. A 50-50 solution of antifreeze and water is preferred and it gives freeze protection to about 30° F below zero. Ultimate protection is attained at 68% antifreeze (about 92° F below zero) a higher concentration of antifreeze should never be used.

The approximate (dry) cooling system capacity is 100 quarts.

The system requires 12.5 gallons of antifreeze for a 50% solution or 17 gallons for a 68% mixture. Final solution should always be tested with a thermo-hydrometer or equivalently reliable testing device to determine actual protection.

If it becomes necessary to completely refill the chassis coolant system, the following procedure must be followed. Pure antifreeze can be used initially until prescribed amount has been installed, and then water for final filling.

1. Fill the engine, radiator, and engine hoses. Locate and close the manual gate valves separating the engine from the heater system. Pressure and return gate valves are located at the engine. Remove the radiator surge tank cap and fill to the top. Replace cap and run engine @ 1500 to 1800 RPM for one minute to purge air from the engine water jacket. Shut off engine; carefully remove the radiator surge tank cap; refill and replace the cap.

CAUTION

Use extreme care at all times when removing the radiator surge tank cap as hot coolant under pressure can cause injury.

2. Fill the heater system. An air bleeder valve for the front heater is located behind the exterior front access panel on the right side. Leave the return line gate valve, located at lower left side of engine, closed and open the pressure line valve, by hydraulic reservoir. Move the Front Heat Selector to the warm position. Using suitable containers to catch coolant, open the bleeder valve at front heater and remove hose from return valve and run the engine at 1,800 RPM until a steady flow of coolant passes through the front bleeder valve and open hose at rear.

The radiator must be refilled often during this time as coolant from the engine will be filling the heater lines. When steady flow is attained, close pressure valve and reconnect return hose. Open both valves allowing coolant to flow back into the engine. Shut off engine. Refill radiator using coolant caught from bleeding operation and add coolant as necessary. Restart engine and run at 1800 RPM for at least two minutes to complete system purge. Test heater blowers to make sure heaters are filled with hot coolant.

Allow engine and radiator to cool. Remove cap and fill radiator surge tank to the top of sight glass. Replace cap - refill procedure is completed.

COOLING SYSTEM ADDITIVES

Automotive cooling systems are subject to various types of corrosion, rust, pitting and cavitation-erosion. These are common factors which prevent efficient cooling and contribute to engine overheating and higher maintenance costs resulting from replacement of hoses, fittings, filters and cracked heads. The manufacturer of the engine used in your motor home recommends the use of Nalcool 2000 - a chemically buffeted liquid additive which effectively neutralizes the formation of acids caused by dissolved exhaust gases, and inhibits the cooling system against corrosion and scale formation. This additive is compatible with most commercial automotive and antifreeze solutions containing ethylene glycol; however, its use is not recommended in cooling systems using DOW Therm 209. When refilling the coolant system, add seven pints of Nalcool before topping off with antifreeze solution. To ensure constant system protection, replenish Nalcool 2000 additive, periodically, in accordance with manufacturer's instructions. Use only low silicate ethylene glycol base antifreeze.

BATTERY MAINTENANCE

Your motor home is equipped with separate engine and coach battery systems for greater assurance that there will be sufficient voltage to crank the motor home engine.

Three engine batteries are located in the engine compartment on the curb side. Those located in the curb side "tag axle" compartment are used for coach loads.

The coach batteries are charged from either the alternator or battery chargers. The engine batteries are charged from only the alternator (unless the auxiliary battery switch is in the ON position which permits the engine batteries to be charged by the battery chargers.) In order for the battery chargers to operate, either the generator must be running or the coach must be connected to a shoreline supply.

To make sure that the batteries are always ready for use, periodically check and charge as necessary.

A dirty battery may eventually dissipate its charge through conductive surface contamination. Clean battery top surface with a damp cloth and dry thoroughly. Check that battery terminals and associated battery jumper terminals are tight and free of corrosion. To clean terminals, neutralize corrosive deposits with a solution of baking soda, rinse with clear water, and dry. Note that commercial type spray-on battery cleaners are available at automotive supply stores. Use as directed to keep the batteries clean. Spray-on cable and terminal protective coatings are also available, easy to use, and effective.

CAUTION

Avoid sparking of any form in the vicinity of the batteries.

CAUTION

Do not wear metal rings, watches or jewelry when working on or near the batteries, cables, solenoids, or chassis wiring. These can short out electrical wiring and cause injury.

BATTERY STORAGE IN FREEZING WEATHER

Batteries that are not kept full-charged must be given protection against freezing. Partially-charged batteries will freeze at low temperatures, so batteries must either be left charged or removed from the vehicle and stored in a warm location.

The motor home can be left connected to the shoreline AC supply and the coach battery chargers will keep the coach batteries charged. Note that even in a warm location is advisable to keep the batteries charged to prevent deterioration. The engine batteries are the sealed type and require no electrolyte service.

Coat Battery terminals with lubricant or protective coating.

BATTERY TERMINALS & JUMP STARTING

Proper procedure for jump-starting, using the Wanderlodge® engine batteries is as follows:

1. Turn off all main battery-operated accessories in both vehicles ... lights, radio, etc.
2. Connect one end of the positive-coded jumper cable to the positive (+) battery terminal, and the opposite end of the cable to the positive (+) terminal on the other battery.
3. Connect one end of the negative-coded jumper cable to the negative (-) terminal on the other battery and the opposite end of the cable to the Wanderlodge engine block.
4. Once the engine of the disabled vehicle is started and brought up to the idle, reverse the above procedure to remove the jumper cables. Always remove the jumper cable connected to the Wanderlodge engine block terminal first to prevent sparks at the other battery.

CAUTION

Avoid sparks in the vicinity of a charging battery. The gas produced is explosive.

BULK OIL FILL

The bulk oil fill system provides a convenient means of replenishing the oil supply during an oil change and for adding oil between changes. There is no need to use valuable storage space for bottles of oil, etc.

An oil storage tank (with approximate 20 quart capacity) is located at the rear on the right side of the engine compartment. When this is pressurized from the air supply, oil can flow through the nozzle directly into the engine crankcase return oil passage. A meter is provided to measure quantity by means of quart and gallon pointers for each individual fill and a totalizer to show all oil added to date. This is a handy way to keep track of oil consumption, etc.

WARNING

Bulk oil system is under pressure when the red light is illuminated. Do not open the filler cap before making sure the bulk oil switch is turned off (red light off). Open the filler cap slowly to allow any pressure in the tank to bleed off before removing the cap completely.

OPERATION

1. Run engine, if necessary, to build up on board air supply.
2. Shut down engine.

CAUTION

Do not run engine while bulk oil fill is in use. Place engine compartment ignition switch in OFF or REAR to prevent starting from the driver's area.

3. Zero meter pointers.
4. Turn on bulk oil switch.
5. Observe that bulk oil red light is on.
6. Push nozzle tab lock out of the way and depress lever until desired amount of oil is shown by meter pointers.
7. Turn off bulk oil switch.
8. Check oil level.

ENGINE SPECIFICATIONS

MAKE

GM Detroit Diesel Series 60, 500 HP (DDEC III)

TYPE

4 Cycle In Line Turbo/Air To Air Charger Cooled

NUMBER OF CYLINDERS

6 Cylinders

BORE ... (INCHES)

5.12

STROKE ... (INCHES)

6.30

DISPLACEMENT

778 Cubic Inches

12.7 Liters

COMPRESSION RATIO

15.0 to 1

SAE HORSEPOWER

75.0

MAX. (NET) BHP @ RPM

500 HP (350 KW) @ 2100

MAX. (NET) TORQUE @ RPM

1450 Ft. Lbs. @ 1200

MAX. GOV. RPM

Load ... 2100

No Load ... 2225

GOVERNOR TYPE

Electronic

FANS, VENT & EXHAUST

KOOL-O-MATIC FAN

12 VDC power ventilator located in the kitchen.

OPERATION

1. Open inlet dampers on fan.
2. Be sure windows are open to provide proper air flow cooling and ventilation.
3. The heat-cool thermostat located in the kitchen activates the fan. The selector switch (at the bottom) must be moved to COOL and the temperature lever set so the fan will operate. The fan will then start automatically whenever the temperature rises above the desired level.
4. Thermostat on fan position will run all the time.

FANTASTIC FAN

12 VDC exhaust fan located in the bathroom.

OPERATION

1. Open damper from control located on the face of the vanity.
2. Turn on fan from control located on the fan. Set desired speed. Switch on fan may be left on in order for the vanity (remote) switch to operate all functions.



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FRESH WATER SYSTEM

WATER SUPPLY AND DISTRIBUTION SYSTEM

The dual purpose Tank Water Fill/Commercial Water inlet connection is located in the road side holding tank compartment. The Tank Fill On-Off switch located in the same compartment, diverts the commercial water input to fill the pure water storage tanks, located in outside compartment. System water pressure is provided by water pumps located in the road side center luggage compartment, rather than by tank pressurization. A bacteriostatic water purifier system purifies all the water supplied to the coach.

COMMERCIAL WATER HOOKUP

When facilities are available, the Commercial Water hookup can be used to supply all coach water system requirements. In this manner, the coach water tank and pump system are automatically bypassed and water pressure is developed by the external connection. Water inlet pressure is regulated to 40-psi maximum, by a valve which is part of the city (commercial) water fill.

FILLING THE TANK - STANDARD CAPACITY APPROX. 120 GALLONS

To fill the water supply tank, connect the water hose to the commercial water inlet, set Tank Fill switch to ON, then turn on the water supply. When tank is full, the level switch in the tank will close the tank fill solenoid. Set the Tank Fill switch to OFF position, shut off the water supply and disconnect the hose. At this time, check that the Monitor panel readout indicates a full water tank. To check, press the Pure tank switch and observe that the E through F indicator segments are lit.

NOTE

The Tank Fill switch should be ON only when the water tank is being filled. This switch must be in OFF position at all other times.

SANITIZING THE WATER SYSTEM

Water system sanitizing procedures should be followed before the system is used for the first time, after long idle periods, where water may become stagnant; or after any suspected contamination of the water supply. Whenever possible, use a commercially approved tank sanitizer and follow the procedures on the product package. If it is not possible to use a commercial product, prepare your own mixture and sanitize the tank in accordance with the following procedures:

1. **Empty the Water Tank** - To drain tanks, open the 2 inch Cold Water Drain Valve behind door in road side holding tank compartment. After tanks are completely drained, close Cold Water Drain.

2. **Prepare the sanitizing solution** - using 1/4 cup of household bleach (sodium hypochlorite solution) for each gallon of water. Use one gallon of the solution for each 15 gallons of tank capacity. This procedure will result in a residual chlorine concentration of 50 ppm in the water system. If a 100 ppm concentration is required use 1/2 cup of household bleach with one gallon water to prepare the chlorine solution. Nine to ten gallons of solution will be adequate for the tank. (Approx. 130 Gallons).
3. **Add sanitizing solution to water tank** - Remove 1-1/4" plug from depression in top of tank and pour solution into tank. Reinstall plug in tank.
4. **Fill tank to capacity** - Connect hose to the commercial water inlet, turn on the Tank Fill Switch and fill water tank completely. Shut off hose, and turn off Tank Fill switch. Turn on the water pumps Open each faucet (hot and cold) and run the water until a distinct odor of chlorine can be detected. Shut off the water pumps.
5. **Allow the system to stand** - for at least 4 hours when disinfecting with 50 ppm residual chlorine. If a shorter time period is desired, then a 100 ppm chlorine concentration should be permitted to stand in the system for at least 1 hour.
6. **Drain tank** - Open the Cold Water Drain valve and allow the tank to drain completely.
7. **Refill tank** - Close the Cold Water Drain valve and turn on the water supply to the commercial water inlet, turn on Tank Fill switch and fill tank completely. When the tanks are full, turn off Tank Fill switch, shut off water supply and disconnect hose, replace fill cap and turn on water pumps. When water flows from opened faucets, close them and open other faucets until water flows. This flushes the system, removing trapped air from the piping and ensures that the fresh water supply is ready for use.

CAUTION

Do not permit sanitizing or antifreeze solutions to enter water purifier.

8. Repeat steps 6. and 7. until chlorine smell and taste are no longer present at faucets.

PURIFIER REPLACEMENT

Depending upon the condition of the municipal water used, the filter media will normally process 75,000 gallons of water before the purifier will need to be replaced. For the majority of "Wanderers" this means there will be at least five years of useful life. The only practical way to determine when replacement is required is to go by the sense of taste. If a faint taste of chlorine is detected, it is time for a change. Even when there is a noticeable taste, the bacteria stopping properties have not been compromised.

AIR ACCUMULATOR

An accumulator in the water system will smooth out the water flow, and eliminates water hammer and pulsations from the water pump. This accumulator has a diaphragm which separates the air on top from the water so it will not become "water logged."

WATER HEATER

With the Aqua-Hot at operating temperature, the domestic water is automatically heated as it is being used. Open any hot water faucet and a continuous supply of domestic hot water will be present within a few seconds. This is accomplished by the Aqua-Hot's domestic hot water loop which is an integral part of the heating system. A mixer valve has been installed to assure that excessively hot water does not flow to the faucets.

CAUTION

The mixer valve is not an anti-scald device. Always exercise reasonable caution when using hot water.

CAUTION

Do not turn Aqua-Hot unit off if outside temperature is 32 degrees or lower when potable water system is not drained.

WATER PUMPS

The water pumps, located in the road side luggage compartment, are equipped with a factory-calibrated pressure control switch which is preset to turn the pumps on when the system pressure falls below 25 psi; and turn the pumps off when the pressure reaches 40 psi. If the pumps have been out of service for a period of time, it is advisable to open a faucet before turning them on. When water flows steadily from the opened faucet, close faucet and observe that the pumps shut off when system becomes pressurized (It may also be necessary to bleed the air from the other faucets as well.) When the potable water supply tank level is low, or empty, shut the pumps off to prevent possible damage to the pump motors. In addition to integral motor overload protection, the pump mechanisms are also protected from damage by the presence of a filter at each water pump inlet. These filters should be cleaned periodically.

Under normal usage, the water pumps should require no periodic maintenance other than ensuring that the input water supply is properly filtered of particles that could damage the pump mechanisms. Pump failures can generally be tied in to the plumbing system, or to electrical wiring. If a pump fails to operate properly, refer to the general troubleshooting guide. Note that detailed pump repairs and overhaul should be performed by a qualified repair facility.

WATER PUMP SWITCH

The central control switch for the water pumps is in the bathroom and has three settings. For a longer interval between water pump maintenance, select either "Pump A" or "Pump B". When one pump fails, the other pump can be used as a backup. For a higher flow rate, select "Pumps A & B".

The associated indicator is lit whenever power is being supplied to the pumps. Turning ON a switch pressurizes the water system, with the pumps operating on demand to maintain constant pressure. Continuous or erratic pump operation can indicate an empty water tank, system leakage, or air lock in the water lines. Switches enabling the water pumps are located in the bathroom, in kitchen and dash area.

MANIFOLD

All cold and hot water is directed to the distribution manifold. Hot and cold water is distributed to each fixture via individual 3/8" I.D. lines. Individual shut-offs, located on the manifold, will shut off water to any fixture in the coach.

WATER PUMP TROUBLESHOOTING GUIDE

Symptom:

Possible Cause:

Corrective Action:

Pumps operate but no water flows through faucet

Low water level in tank.

Add water.

Suction lines or filters clogged.

Clear water lines and clean filters.

Kink in water suction hose.

Check water hose connections to tank and straighten or replace, as necessary.

Air leak in suction line.

Replace suction line.

Defective water pump.

Replace diaphragm or jammed check valve.

[See Flojet's service instructions].

Pump cycles on and off when faucets are closed:

Water leak in plumbing.

Check for signs of leakage and tighten or replace fittings, pipe, etc.

Defective toilet flush valve.

Repair flush valve.

Defective water pump.

Replace upper housing.

[See Flojet's service instructions].

Pump operates roughly and has excessive noise and vibration:

Intake line is restricted, kink in suction hose or fittings are too small.

Check input hoses and straighten or replace, as necessary

Defective water pump.

Replace lower housing.

[See Flojet's service instructions]

Pump fails to start when faucet is opened:

Clogged pressure piping.

Blow out water lines with compressed air.

No voltage to pump.

Check input wiring circuit breaker and switches.

Defective water pump.

Replace upper housing or check valve.

(See Flojet's service instructions).

Pump gives low water pressure and flow:

Defective water pump.

Replace diaphragm or motor.

(See Flojet's service instructions).

WINTERIZING

If you are planning on storing your motor home in an unheated area during cold weather, it will be necessary to winterize the water system to prevent damage from freezing conditions. Winterizing procedures are covered in the following paragraphs.

DRAINING AND WINTERIZING THE FRESH WATER SUPPLY SYSTEM

The following procedures show the use of the various drain valves, controls and pressurized air system to remove the water from the plumbing and appliances in the fresh water supply system.

1. Open the main circuit breaker box and turn off the Water Heater and Instant Hot circuit breakers.
2. Turn on Water Pump switch and open all faucets (galley sink, lavatory, shower, outside hose connection and toilet water valve - after depressing pedal insert block to maintain position). Note that the outside water hose connection should always be left open when freezing temperatures are expected. Also remove drain plugs at rear of toilet and at bottom of Instant Hot. Refer to the Ice-Maker and Toilet Manuals for winterizing these units..
3. Open the 2" water tank drain located in road side rear luggage compartment. Open Cold and Hot Water Drain valves located in driver side rear luggage compartment.
4. Allow water to drain completely before proceeding to the next step.
5. Close Cold Water Drains, and water tank drain valve.
6. Turn ON Water Purge Air Pressure switch to activate the solenoid which applies air pressure to the input water line to purge the water system. Note that it may be necessary to start the engine to build up air pressure.
7. Remove cap from cold water circuit in Aqua-Hot compartment and pour in 8 oz. of RV Antifreeze. Replace cap and repeat step 6. Then proceed to step 8.

8. When only air remains in the lines, close Hot Water Drain Valve and all faucets. Replace drain plugs in toilet and Instant Hot. Operate the Instant Hot valve to clear the heat exchanger of remaining water.
9. Turn Water Purge Air Pressure Switch and Water Pump Switch off, and shut down engine.
10. Open all faucets (toilet valve to remain open).
11. At this point, the only water remaining in the system is contained in the P traps beneath the lavatory, shower and kitchen sink, and clothes washer (optional). To prevent this water from freezing and damaging the traps, put one pint of RV system anti-freeze into each drain. See WASTE SYSTEM winterizing.

NOTE

When reactivating system, make sure (optional) Instant Hot is full of water before switching on.

GENERATOR

GENERATOR OPERATION

The generator can be started and stopped from any of three locations within the coach. At the left hand overhead dash panel, at the galley panel, or at the bedroom panel. In addition, the generator can also be operated from the controller box in the blower/radiator (front roadside) compartment.

To start the generator, push the Generator switch to the Start position and hold until the generator starts, as indicated by the indicator light. Do not hold switch on for longer than 5 seconds at a time! If the generator does not start the first time, wait a minute and try again. Release the switch when the indicator light glows. After starting, there will be a delay of approximately 25 seconds before the automatic change over switch will permit the generator to pick up the load. The generator may be stopped at any time, by holding the switch to the Stop position until the generator stops (light extinguishes).

In cold weather, it is necessary to activate the cylinder glow plugs before starting. Push start-stop switch to stop position and hold for 15-20 seconds. See operator's manual for more detailed information.

GENERATOR MAINTENANCE

Refer to Operator's Manual in your owner's kit for inspection maintenance requirements.

CAUTION

The generator tray is electrically operated and extends outward with considerable force. To extend the tray, move around to the road side and operate the tray switch in the front compartment to out position. Be sure that there is sufficient clearance in front of the tray and that nobody is in the way! Use extreme caution when observing and operating generator with tray extended.

GENERATOR EXHAUST

The generator can be run in one of two ways. The cap on the blow out pipe can be left on if the generator is to be run while in close proximity to other coaches in a campground situation. Or it can be left open while traveling or when the exhaust gases will not bother neighbors in camping situations. The generator runs on diesel fuel, so to reduce water contamination and sooting, Wanderlodge recommends that the roof exhaust only be used when needed in campground situations.

CAUTION

The generator exhaust will be hot when generator is running and for a time after generator has been turned off. To avoid burn injuries, allow generator exhaust to cool down before any contact with pipe.

AIR CLEANER

Cleaning Instructions:

Donaldson does authorize cleaning the Dura-Lite unit (throwaway type) but this can be impractical in most cases. If it is cleaned, the following should be observed.

Blow air into the Dura-Lite's outlet neck causing dirt to flow off the media and out the dirty air inlet opposite the normal air flow direction. This procedure keeps the abrasive contaminants away from the clean air side.

Do Not use pressurized air higher than 100 psi.

Do Not use compressed air cleaning when the filter media is wet.

OIL CHECK/CHANGE

To be on the safe side, check oil (dipstick located on road side of generator) in engine crankcase daily, or before each start, to ensure that the level is in the safe range between the upper and lower marks on the dipstick. Do not operate generator if level exceeds the upper mark, or is below the lower mark.

CAUTION

Do not check oil level while engine is operating. Engine must be stopped to obtain a true reading, as well as for safety reasons!

Whenever possible, drain the oil while the engine is still warm. To drain, place a container below the unit, open the oil drain and allow sufficient time for the old oil to drain completely. After draining, close drain plug and tighten securely.

COOLING SYSTEM

Cooling system capacity is about 16 quarts of liquid. System should be filled using equal parts of water and ethylene glycol. (A drain petcock is provided on the underside of the radiator.)

When draining the coolant, remove the cap from the top of the engine and open the engine block drain cock located below the fuel injection pump.

Check coolant level frequently and add antifreeze mixture as needed to maintain full system.

HOURS RUN METER

Meter is located on generator control panel.

GENERAL TROUBLESHOOTING

Refer to the Generator Service Manual for repair and maintenance data. Generator repairs should be accomplished by a qualified repair agency.

GENERATOR OVERLOADS

If the rated capacity of the generator is exceeded, the safeguard circuit breaker, located on the front surface of generator electrical box, will trip to protect the generator against damage. This condition could be caused by a short in the coach AC supply circuits, or by operating too many appliances simultaneously, resulting in an overload condition. If the safeguard circuit breaker trips, the generator will continue running but no AC output will be supplied. Before resetting the circuit breakers, turn off some of the coach appliances and lighting to reduce the load to within the operating limits of the generator. If this is done, and the generator breakers still trip, a short circuit is indicated. Turn off the generator, locate and correct the cause of the short circuit.

OIL PRESSURE

Always ensure that with the engine running, oil pressure is registering on the upper dash generator oil pressure gauge.

STORAGE PROCEDURES

If the generator is to be out of service for a long period of time, perform the following procedures before placing the unit in storage:

1. Drain oil from crankcase (while hot) and refill with specified oil. Run generator after change to circulate new oil.
2. Clean exterior surfaces of generator set then spread a light film of oil over any unpainted metallic surfaces which could corrode.

GENERATOR SPECIFICATIONS

Electrical Rating	15 KW at 120 VAC
Fuel Supply	Diesel, separate pickup in main tank
Fuel Filter Element	WL P/N 3970860
Cooling System	16 quarts
Crankcase Capacity	9.5 quarts
Oil Filter	WL P/N 3970878
Oil Specifications for Generator	
API Classification	CD 10W30/10W40 (See Operator's Manual)
Air Filter Element	WL P/N 3838158 (Donaldson ECB05-5001)

CHASSIS HEATING SYSTEM

Heat generated by the engine is supplied through the coolant to a 46,000 BTU unit for the pilot and co-pilot area.

OPERATION FOR DRIVER/CO-PILOT HEATER

1. The coach ignition switch must be on for operation of blower motors.
2. Use chassis AC-Heat control panel to select fan speed, heat temperature, and venting desired.

HYDRONIC HEAT EXCHANGER

Heat generated by the engine coolant is also supplied to heat exchangers which provide heat to the Hydronic System, while in transit, without the necessity of using the diesel burner or AC circuit. See Section 13-3.

ELECTRIC HEAT

Electric forced air heaters (120 vac) are located in the bathroom, and kitchen. Your electric heaters are provided for auxiliary heating. Since each heater draws 10-15 ac amps, operator load management becomes an important consideration.

KITCHEN HEATER OPERATION

1. A/C Master Front switch on shifter panel must be turned on.
2. Kitchen thermostat must be set to HEAT and set for temperature desired.

BATHROOM HEATER OPERATION

1. On/Off thermostat control on heater must be turned on and set.
2. Bathroom thermostat must be turned on and set for temperature desired.

DIESEL FIRED HYDRONIC HEATING

INTRODUCTION

The Aqua-Hot Motor Coach and Marine Heating System is an on-board heating system that provides a continuous supply of domestic hot water, as well as interior heat where and when it is needed. Both heating features are accomplished by a 50,000 BTU diesel-fired burner and a 1650 watt (5630 BTU) electric heating element (110 volt/AC). These two heating sources separately or simultaneously (during high heat demand periods) maintain the temperature of the Aqua-Hot's 50/50 solution of water and antifreeze. In addition to domestic hot water and interior heating capabilities, the Aqua-Hot has also been designed to preheat the vehicle's engine prior to starting. This feature provides easy engine start-up on cool mornings.

DIESEL BURNER

Turn the diesel burner control switch ON. This procedure will activate the diesel burner and the indicator light. Allow 20-30 minutes for the system to reach operating temperature.

ELECTRIC HEATING ELEMENT

The electric heating element is hard-wired into your coach's 110 volt/AC electrical system and is operational whenever the AC circuit is activated. If the system has been out of service for a period of time, allow 2-3 hours for the system to reach operating temperature. We mention the electric heating element because there will be times when you will need to use only the electric heating element for all your heating needs, such as when the moderate, ambient temperatures exist and/or when there is a low demand for domestic water heating.

SUPPLEMENTAL HEAT

The Aqua-Hot's engine preheating system acts as a supplemental heating source, in addition to the diesel burner and electric heating element. While traveling, the engine's heated coolant will automatically pass through the engine preheat loop, transferring heat into the Aqua-Hot's heat tank. This feature reduces the total operating hours of the diesel heater.

NOTE

Do not operate the engine preheat circulating pump while traveling.

ROOM THERMOSTATS

This installation uses 2 room thermostats for the living area. The livingroom, kitchen, and bedroom utilize the Dometic "Comfort Control Center (see the Dometic Manual for its operation). The bath uses a separate thermostat. Adjust each thermostat to the desired temperature. This procedure activates the Aqua-Hot's zone circulation pumps and zone relays. The pumps circulate the heated solution of water and antifreeze to the heat exchanger's blowers. There are 3 heat exchangers in the kitchen/living room, 1 or 2 in the bathroom, and 1 or 2 in the bedroom.

BAY THERMOSTAT

This installation uses a low temperature thermostat in the bay. This thermostat is pre-set to 40 degrees Fahrenheit. This will prevent freezing of the water system.

UPKEEP

3.1 MAINTENANCE SCHEDULE

MONTHLY

Check the Aqua-Hot's 50/50 solution of water and antifreeze to ensure it is at the proper level. Do this by visually checking the coolant level in the Aqua-Hot's expansion tank. This should be checked only when the Aqua-Hot is HOT. Adding solution to the expansion tank when the heater is cold will result in solution overflow when the Aqua-Hot heats to normal operating temperatures.

ANNUALLY

CAUTION

**Before cleaning or servicing,
disconnect all power supplies.**

Be sure to have your Aqua-Hot tuned up yearly. A tune-up should consist of a fuel nozzle and filter replacement and thorough cleaning. This simple tune-up will keep your Aqua-Hot running smoothly throughout the year, as well as allow service personnel to inspect for additional wear and tear of other important components.

CAUTION

**Operating the Aqua-Hot diesel burner or electric heating
element without the 50/50 solution of water and antifreeze
will cause serious damage to the heater.**

See Operator's Manual for further information.

WINTERIZATION

See Section 11-5 for Wanderlodge procedure in lieu of Aqua-Hot procedure. Either is acceptable; however, procedure in Wanderlodge manual is preferred.

BLEEDING THE SYSTEM

The Aqua-Hot system is self purging via the header (or surge) tank located in the Aqua-Hot compartment.

Keep the surge tank at appropriate level; fill only when the system is at operating temperature, or tank will overflow when it reaches operating temperature.

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INTERIOR & EXTERIOR CARE

CORIAN TOPS

Even stubborn stains ... such as grape or beet juices ... wipe off with a damp cloth and household cleanser. Because CORIAN is solid all the way through, it cannot be harmed by abrasive cleansers and normal household cleaners.

CORIAN is strong and tough, but slicing on it with knives can cause scratches. Use a cutting board.

While CORIAN does provide an extra measure of protection (better than ordinary counter tops), it is not recommended as a hot pad. Do not place hot pots and pans directly on your CORIAN counter top.

Since it's a solid material with color and pattern all the way through, unusual damage such as cigarette burns, scratches, or other surface abuse can usually be removed using ordinary household cleansers or fine sandpaper. If the stain persists, or if the scratch is particularly deep, first use a medium sandpaper (120 or 240 grit) then fine sandpaper (320 or 400 grit) followed by circular motion buffing with a Scotch Brite pad to match the gloss of adjacent surfaces. Household cleanser, steel wool or Du Pont No. 7 polishing compound can also be used if higher gloss levels are needed.

CAUTION

Certain chemicals found in the home-such as paint removers, paint brush cleaners, acid drain cleaners and certain brands of nail polish and polish removers - can harm CORIAN if left in contact even for short periods of time. These materials should be wiped away promptly and flushed with water. Depending on time of exposure, surface damage caused by these materials can sometimes extend too deeply for practical repairs.

INTERIOR CARE

The interior can be kept in good condition with the use of approved cleaning agents for wall coverings and ceilings, plastic fixtures, stainless steel, formica and so on. Never use abrasive cleaning agents on interior of refrigerators, or on the lavatory, tub/shower, or toilet, as they can cause permanent scratches. Be sure that the cleaning agent will not damage the material. Note that some plastics are incompatible with certain cleaners. Read the directions on the container before using. For the most part, the cleaners and polishes that would normally be used in your home are equally well-suited for use in your motor home.

STRESS CRACK AVOIDANCE OF LAMINATE MATERIALS

Causes of stress cracking - caused by the concentration or buildup of stresses in a particular area of a laminated assembly. When this stress becomes greater than that which the laminate can withstand, a stress crack will occur. If such stresses are allowed

to concentrate around a cutout or other such fabrication detail, one or more cracks can characteristically radiate from the sharper corners of the cutout, where, for mechanical reasons, the laminate is the weakest.

The stresses can be caused by external mechanical forces but are generally caused by the normal dimensional movements of the laminated assembly as it reacts to the surrounding environment. As with all wood based products, high pressure laminates and their substrates react to humidity changes. Under moist conditions, laminated assemblies gain moisture and expand dimensionally. When this same assembly is subjected to dry conditions, however, this moisture is lost and shrinkage results. If the laminate shrinks more than the substrate, stress cracking of the laminate surface can occur in certain areas.

STEPS TO MINIMIZE STRESS CRACKING-

in extremely dry conditions, relative humidity of 10% or less, and excessively warm temperatures, generally greater than 95 degrees Fahrenheit, the following precautions should be taken when storing the coach for a length of time greater than 48 hours:

- Open a roof vent hatch to permit heat to escape from the interior of the coach
- Provide a source of moisture for the interior of the coach, such as an open container of water, to boost interior moisture content

By reducing heat buildup and adding moisture content to the interior, less dimensional movement between the laminate and substrate should occur, thus minimizing the stress between the laminate and substrate.

EXTERIOR CARE

Exterior paint finish life can be extended by periodic cleaning and waxing. This will preserve the paint and allow easier removal of dirt and road tars. Use touch-up paint for small areas to keep the coach finish in like new condition.

Frequent washing of the coach is necessary to prevent corrosion in areas where heavy salt sprays are evident. A clear acrylic spray may be used, with care, to control corrosive effects of salt spray on metal surfaces.

CAUTION

Some car/truck wash facilities may use strong detergents or other chemicals that could cause permanent staining or streaking of exterior paint and aluminum trim. A strong alkaline solution, while useful for dissolving dirt, is a suspected harmful ingredient.

Before enlisting any commercial wash service or facility, you should determine that cleaning agents used will not damage the finish of your coach.

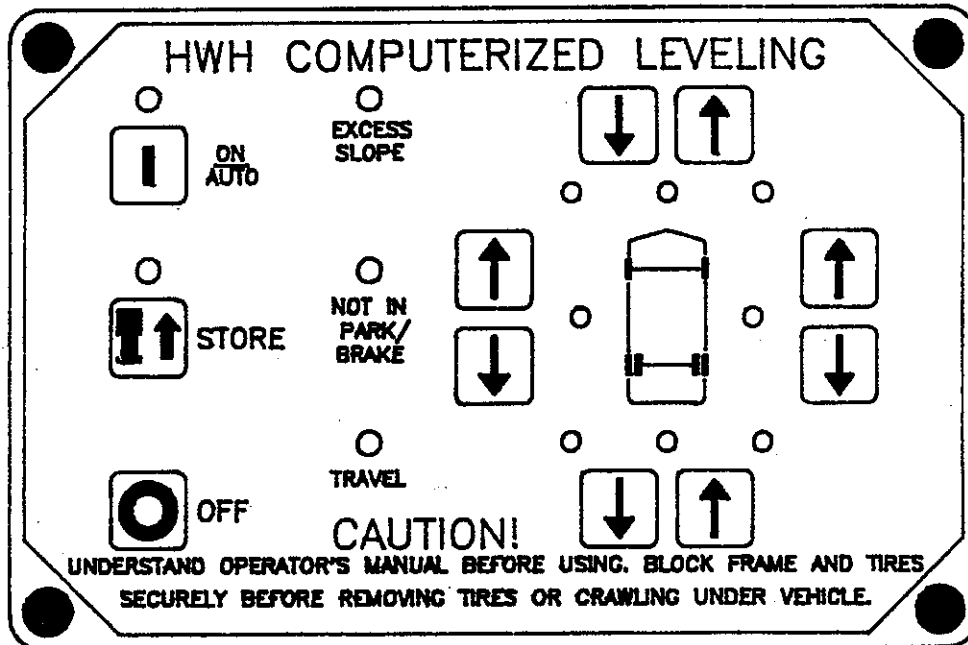
CAUTION

Avoid spraying water through the refrigerator vent door. Refrigerator PC control boards are not completely sealed and are vulnerable to an inadvertent dousing.

LEVELING JACK OPERATION

AUTOMATIC LEVELING JACKS CONTROL

The control panel is mounted on the sidewall beside the pilot.



CAUTION!

Read and understand entire operators manual before operating.

Block frame and tires securely before changing tires or crawling under vehicle. Do not use leveling jacks (or air suspension) to support vehicle while under vehicle or changing tires. Vehicle may move forward or backward without warning causing injury or death.

Keep all people clear of vehicle while leveling system is in use.

Do not over extend the rear jacks. If the weight of the vehicle is removed from one or both rear wheels, the vehicle may roll forward or backward, off the jacks.

Never place hands or other parts of the body near hydraulic leaks. Oil may cut and penetrate the skin causing injury or death.

1. RED WARNING LIGHT (DASH MOUNTED)

Anytime one or more jacks are not fully retracted this light should be on.
Do not move the vehicle if this light is on.

PANEL FUNCTIONS

1. CONTROL BUTTONS

The "OFF" button is in the lower left hand corner of the touch panel. Push the "OFF" button to stop hydraulic operation.

Top left is the "I" button with its operating light above it. Below the "I" button is the "STORE" button for retracting hydraulic jacks, with its operating light directly above it.

The remaining buttons on the right hand side of the panel are MANUAL control buttons that operate only during the manual mode. The manual buttons are the eight (8) buttons on the right half of the label, two for each of the FRONT, REAR, LEFT SIDE, and RIGHT SIDE. Pushing UP arrows will cause the coach to raise and DOWN arrows will cause the coach to lower.

2. INDICATOR LIGHTS

The four (4) yellow indicating lights are level sensing indicators. When a yellow light is "ON", it indicates that its side or end of the vehicle is low. No more than two (2) lights should be on at the same time.

The four (4) red lights surrounding the yellow level indicators are jack warning lights. They are functional only when ignition is "ON" or in "ACCESSORY". During the hydraulic mode they light when the respective jack is extended. The vehicle should not be moved while these lights are on.

The "EXCESS SLOPE" indicator will light when the leveling system cannot level the coach.

The "NOT IN PARK" indicator is "ON" when the control panel is "ON" and the park brake is not set.

The "TRAVEL" indicator is "ON" when the control panel is off, the jacks are retracted, and the ignition switch is on. Do not move vehicle unless travel light is "ON".

The "LOW BATTERY" indicator is "ON" when the controls sense low voltage set between 8.0 and 9.0 volts. The system will stop leveling functions when low voltage is detected.

The master "JACKS DOWN" warning light, on the dash, will be lit when any one touch panel "Jacks Down" warning light is on. This light will function when the ignition is "ON" and the touch panel is "ON" or "OFF". IMPORTANT: This light will be the only working "Jacks Down" warning light when traveling.

GENERAL INSTRUCTIONS

Press the "OFF" button and turn the ignition switch OFF at any time to stop the operation of the system.

Any time a hydraulic leveling process is interrupted, retract the jacks according to the "JACK RETRACTION" section and then restart the leveling process.

Do not operate the system when the "LOW BATTERY" light is on. If the park brake is not set when the "I" button is pressed, the "NOT IN PARK" light will come on and the system will not operate. It will remain "ON" only while the "I" button is pressed.

PREPARATION FOR TRAVEL

Before traveling, the red jack warning lights must be "OFF" and the travel light must be "ON". If lights are not correct for travel, retract jack as described in the "JACK RETRACTION" section.

CAUTION; Do not rely solely upon the warning indicator lights. It is the operator's responsibility to check that all jacks are up before moving the vehicle.

SYSTEM OPERATION

AUTOMATIC HYDRAULIC LEVELING

1. Place transmission in neutral position and set parking brake. Turn the ignition to the "ON" position. Note: Coach engine must be off for leveling.
2. If the vehicle is parked on soft ground, blocks may be placed under the jacks for added support.
3. De-pressurize the suspension system by moving "TAG DUMP" and "SUSP DUMP" switches to "DUMP", (away from "UP"). Dump tag axle first.
4. Press the "I" button to enter the hydraulic operation mode. The "I" indicator light will glow steady.
5. Press the "I" button a second time. The "I" indicator light will start to flash. The system automatically extends the jacks to level the vehicle and then extends any remaining jacks until they touch the ground. In the event the jacks are unable to level the vehicle, the "EXCESS SLOPE" indicator light will come "ON". One or more yellow level lights will be "ON" indicating that its jack is fully extended.
6. After a short pause the system will automatically shut off.
7. Turn the ignition switch to the "OFF" position.

JACK RETRACTION

1. The operator must be sure that there are no objects under the vehicle and that all people are clear of the vehicle.
2. Start coach. Pressurize the suspension system by moving the "SUSP DUMP" switch to the "UP" position. When the front and rear suspension is fully pressurized, put the "TAG DUMP" switch in the "UP" position.
3. Press the "I" button one time. The "I" indicator light will glow steady. Press the "STORE" button. The store indicator light will flash. As each jack retracts, its red warning light will go out. Approximately one minute after the four red warning lights are off and the "TRAVEL" light is on the vehicle may be moved.
4. The system will automatically shut off six minutes after the four "Jacks Down" warning lights on the touch panel have gone out. If a "Jacks Down" warning light stays lit, the system will continue to run for thirty minutes. It will then shut off regardless of the touch panel warning lights. Note: DO NOT interrupt power to the control box until the red indicator light above the "I" button has gone out.
5. If jacks cannot be retracted by the above procedure see "VALVE RELEASE OPERATION" section.

MANUAL HYDRAULIC OPERATION

1. Place transmission in neutral and set the parking brake. Turn the ignition to the "ON" position.
2. If vehicle is parked on soft ground, blocks may be placed under jacks for added support.
3. De-pressurize the suspension system by moving "TAG DUMP" and "SUSP DUMP" switches to "DUMP" (away from "UP"). Dump tag axle first.
4. Press the "I" button. The indicator light will glow steady.
5. The vehicle may be leveled using the manual raise buttons on the right half of the panel. If a yellow "LEVEL SENSING" light is "ON", that side or end of the vehicle is low. Jacks will extend (or retract) in pairs to raise (or lower) a side or end of the vehicle. When a jack is extended, approximately two (2) inches, the respective jack warning light on the right half of the panel will come on.

IMPORTANT: Do not continue to push a raise button for more than ten (10) seconds after that pair of jacks are fully extended.

6. When leveling is completed, push the "OFF" button on the leveling panel and turn the ignition switch to the "OFF" position.

VALVE RELEASE OPERATION

1. Use the valve release "T" handles for retracting only if the "STORE" button on the control panel will not retract the jacks for travel.

CAUTION: Keep away from the wheels, do not crawl under coach, keep a safe distance in front and rear of vehicle. The vehicle may drop and/or move forward or backward without warning or as the valve release is operated.

2. Locate the valve release "T" handles on the solenoid valves. The solenoid valves are located on the pump manifold assembly.
3. Allow clearance for the coach to lower.
4. Open the two outer valves slowly by turning counter clockwise. The handles may turn easily at first but as an internal spring is compressed, turning may become more difficult. The valves need only be opened enough to retract the jack.
5. Retract the front jacks by opening the two center valves as described in step 4.
6. Check that all four jacks are now retracted.
7. Close the valves by turning the release handles clockwise. Once the internal spring tension has been released, the handles will turn free for several turns. DO NOT tighten the handles past this point as internal damage may occur to the solenoid.
8. The system should now be repaired before being used again.

SERVICING OF LEVELING SYSTEM

HYDRAULIC OIL

Retract the four leveling jacks before checking oil level. Locate the pump/manifold assembly and clean any dirt away from the breather/filler cap on the oil reservoir. Check that the oil is within one (1) inch of the top of the reservoir.

The oil should be checked when the vehicle is first purchased and then once every two years. More often if there is an oil leak in the system. Use universal, multipurpose or Dexron transmission fluid. DO NOT USE brake fluid or hydraulic jack fluid. Use of these fluids can damage seals. The hydraulic tank should be filled to within one (1) inch from the top.

VISUAL INSPECTION

Periodically inspect the leveling jacks for damaged or missing parts such as pivot bolts, springs, or warning switches. Check the hydraulic lines and wiring for damage and wear.

"NOT IN PARK/BRAKE" CHECK

Set park brake. Switch ignition to the "ON" position. Continuously press "I" button on touch panel to turn on system. Release parking brake and confirm that the "NOT IN PARK/BRAKE" indicator light comes on. Reset parking brake. Switch ignition to "OFF" position.

NOTE: If any of the above checks or inspections reveal a problem or if there are other problems or questions, consult your vehicle or coach manufacturer, or HWH Corporation for service or repair.

OPERATIONAL CHECK

Review operator manual and confirm that the system is operating correctly. Check warning switch operation by extending one jack approximately four inches, check that the warning light on the dash came on, retract the jack, then repeat for other three jacks.

NOTE

If any of the above checks or inspections reveal a problem or if there are other problems or questions consult your nearest service center.

NOTE

If the jacks are not retracted before driving away, a buzzer will sound.

CAUTION

Do not drive the coach unless the tag axle is correctly pressurized to assure even weight distribution. There must be pressure in the TAG AXLE air bags to prevent flat spotting of TAG AXLES tires during brake application.

CAUTION

Severe injury or death may result. Do not use the leveling system for changing tires or working under the vehicle. Keep the rear wheels in firm contact with the ground with the parking brake set. With the leveling jacks extended, there is a possibility the vehicle may move either toward the front or rear.

LPG SYSTEM

LPG SYSTEM

The coach is equipped with a permanently mounted 44 gallon (148 pounds of fuel-net) LP gas tank which is the energy source for the cooktop (range) hydronic heat system and alternate source for the refrigerator.

LPG TANK AND CONTROLS

The LPG supply tank is located between the frame rails directly to the rear of the pass-thru compartment. LPG system controls include a main gas service valve, solenoid shut-off valve, two stage pressure regulator, filler connection with Auto Stop (80%) fill valve, 20% vapor (stop filling when liquid appears) valve, and the pressure relief valve. The main gas service valve has an extension accessible through a door on the road side. Extensions for the filler connection and the 20% vapor valve terminate below the road side diesel fuel fill. The regulator and associated components at the tank are accessible after removal of a plate in a road side compartment.

WARNING

When the coach is to be stored in a confined area, turn off the LPG at the main tank shutoff valve. With the LPG leak detector this may now be accomplished by turning off the LPG Master Switch on the galley panel.

LPG tank level can be monitored at the galley panel above the microwave oven.

FUEL REQUIREMENTS

Liquefied petroleum gas is a material composed of various hydrocarbons such as propane, butane, or a mixture thereof. In its gaseous form (vaporized) it is colorless and has a garlic-scented additive to ensure detection. In addition to being highly inflammable, it is also dangerous to inhale. For ease of transportation and storage, LPG is compressed into a liquid state and stored, in this form, within the LPG tank. As fuel is used, vapor passes from the top of the tank into the two stage pressure regulator and to the various gas appliances.

Appliances will not function if the LP gas does not vaporize. Butane will not vaporize below 32° F. (the freezing point of water), but propane will continue to vaporize down to 44 degrees below zero. Propane has become the main type of LP gas used in RV's in recent years. Your LP supplier will have the correct type or blend for your locale. If your travels will take you into an area where climate differs, ask your LP dealer for his recommendations. The names of LP suppliers can be found in the yellow pages of the telephone directory under "Gas-Liquefied Petroleum-Bottled & Bulk". Many campgrounds now have LP gas fill facilities, as do some service stations.

Prevent condensation and possible regulator or line freeze-ups, when filling the tank, by requesting the dealer to add a small amount of methyl alcohol to the fill up. A common mixture is one ounce of Methyl Alcohol to each 20 pounds of LPG.

NOTE

Liquefied petroleum gas is heavier than air.

FILLING THE LP GAS TANK

When the tank is being filled, the service valve must be closed and the 80% liquid level valve (20% vapor valve) must be open. The 80% auto stop fill valve may close before liquid appears at the 80% liquid level valve, but if liquid does appear, stop filling immediately; the tank is filled to its LP capacity. Close the liquid level valve. Do not use a wrench to tighten this or the service valve; they are designed to be closed leak-tight by hand. If you cannot hand-tighten properly, the valve probably needs repair or replacement.

CAUTION

Be sure that the main LPG supply is shut off during refueling to prevent accidental ignition of gas fumes by appliance igniters.

CAUTION

All gas appliances must be cut off before filling the LPG tank. Check gas lines and fittings periodically for tightness and leakage.

REGULATOR

The two stage pressure regulator regulates the pressure of the LPG supplied to the appliances. The regulator functions automatically and is factory-preset to provide the correct line pressure. Do not attempt to tamper with or reset the regulator! Even a small variation above the normal gas line pressure can be sufficient to create a dangerous situation and cause possible damage to individual appliance components. If there is any doubt about the regulator setting it can be checked by your Wanderlodge dealer or LPG supplier. The correct setting is 11-14 inch water column.

OPERATION

To operate any LPG appliance, the main gas (Service) valve, must be open. Also individual valves at each appliance must be opened prior to use. When first used, or after a refill, there may be some air in the gas lines which will escape when you open a range burner or similar LP gas valve. The air may extinguish your match or igniter the first time or two, before you get ignition. Remember, too, that when you close the tank's service valve some of the gas will remain in the lines. To completely bleed the lines of gas, close the tank's service valve and light a range burner to use up the excess. When the flame burns out, turn the range burner off.

CHECKING FOR LEAKS

Periodically check the LPG system for possible leakage. Do not wait for an alarm condition to occur before correcting a leak! Although the entire system and associated appliances undergo extensive factory testing for leakage, road shocks and heavy vibrations may loosen or damage piping or fittings. Leaks will usually become noticeable by the characteristic odor of the garlic-scented gas additive. To check, turn off all burners and pilot lights. Open all doors and windows. Open LPG tank service valve and use an ammonia and chlorine free soap-bubble solution on all connections. Any bubbles are evidence of leakage.

NOTE

The gas leakage detectors may momentarily sound an alarm when the engine is initially started or when a heavy electrical load is placed on the system. Further, the ultra sensitive response of these units may also cause an alarm to be given in the presence of certain pressurized-can sprays or cleaning agents. Do not assume! Always determine the reason for this vital alarm being given!

LPG CONSUMPTION

Most gas appliances are intermittently operated. However, operation during cold weather conditions does cause heavy consumption. The amount of LPG consumption depends on the total use and manner of use of these appliances.

Note that each gallon (4 1/4 lb) of LPG fuel produces approximately 91,500 BTU's of heat energy. The LPG tank used in your coach will furnish over 3 million BTU's.

For your guidance in estimating your anticipated fuel consumption, the following is a listing of typical appliance consumption ratings when the appliance is operated for one hour:

Refrigerator	1,500 BTU's
Cooktop Burners	5,200 BTU's each

LPG SYSTEM WARNINGS

WARNING

LP gas containers shall not be placed or stored inside the vehicle. LP gas containers are equipped with safety devices which relieve excessive pressure by discharging gas to the atmosphere.

WARNING

It is not safe to use cooking appliances for comfort heat.

This 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 appliance(s) 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.

Cooking appliances need fresh air for safe operation. Before operation:

1. Open overhead vent or turn on exhaust fan.
2. Open Window.

A warning label has been located near the LP gas container. This label reads.

WARNING

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

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

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

The following label has been placed in the vehicle near the range area:

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.

LP gas regulators must always be installed with the diaphragm vent facing downward. This will minimize any chances of vent blockage which could result in excessive gas pressure causing fire or explosion.

WARNING

Never check for leaks with an open flame. Do not check copper plumbing lines for leaks using ammoniated or chlorinated household-type detergents. These can cause cracks to form on the line and brass fittings. If the leak cannot be located, take the unit to your Wanderlodge dealer or LPG supplier.

LPG LEAK DETECTOR SYSTEM

The system has been developed to the point where it is unique; it shuts off the LP gas at the high pressure source, yet holds the valve open to provide ample appliance flow with a minimum amount of current usage.

Three components make up the system

1. **Gas Detection Control Unit:** mounted in toekick of the kitchen base cabinet. This is the "brains" of the system and provides an electrical signal to the solenoid valve when LPG service is required.
2. **Solenoid Valve:** installed in the high pressure LPG line feeding the two stage regulator. It is a "normally closed" solenoid valve and has a special winding of 22 ohms (approximate) resistance, so it uses very little current in the "hold open" position. In order to close the valve, it is only necessary to break the circuit. This provides a "fail-safe" feature in the event of loss of 12 volt power.
3. **LPG Master switch:** located on the galley panel.

The following events will result in an open/low voltage circuit and allow the solenoid valve to close and shut off the LPG supply:

1. Pushing the switch to OFF on LPG MASTER switch or the Gas Detection Control Unit. Green light will go out.
2. The Gas Detection Control Unit senses the presence of LP gas (or can be triggered by a propane lighter or even hair spray!) Green light out, Red light on, along with audible signal.
3. The Electronic Master switch is turned off. Green light will go out.

NOTE

System is not Master Switch activated.

In order to restore LP gas flow to the coach, use the following procedures corresponding to the events above:

1. Push switch on the LPG MASTER and the Gas Detection Control Unit to ON. Green light will come on.
2. Correct the cause of LP gas leak, or determine if other fumes caused the shut down. Green light will come on.
3. Turn Electronic Master Switch on. Green light will come on.

NOTE

Because of the presence of an excess flow valve in the LPG tank outlet (safety feature), sometimes an appliance will not relight after a shutdown. In this circumstance, wait five (5) minutes for LPG pressures to equalize before relighting.

OPTIONAL EQUIPMENT

AUXILIARY AIR COMPRESSOR

This unit provides a quick source of air so there is no need to wait for pressure to build up after starting engine. It can be used to operate air tools and accessories without starting the coach engine. It also serves as a standby unit in the rare case of a malfunction in the engine driven air compressor system.

The compressor and starting relay are located in a left (road) side center compartment while the 12 volt switch to operate the relay is located on the lower dash panel.

OPERATION

The compressor operates from 120 volt AC power so the coach must be plugged into shore power or the generator must be running. Press dash switch on.

Refer to Operating Manual for additional information.

MAINTENANCE

No lubrication is required for the life of the unit.

The air inlet filters should be inspected once or twice a year. The black plastic air inlet covers can be removed by turning counter-clockwise. This will reveal the felt filters. If there is evidence of dirt on filters and covers they may be washed in a solvent and air dried.

TIRE CHANGE KIT

Includes a 12 ton hydraulic jack, jack handle, torque multiplying lug wrench and handle.

EXTERIOR LIGHTING PACKAGE

This lighting package includes an additional porch light on the curb side in the rear and an additional porch light on the road side above the utility box.

MUSICAL HORN CONTROLS-REMOTE

With this option a remote horn panel is located on the co-pilot's kick panel. (See **Musical Horn** for operating instructions.)

TABLE INFINITY

This option provides an infinity table in lieu of the standard living room table. Table is two tiered with wood tops. Top is smoked glass with vista lighting. Inside of table includes mirrored back and sides with provisions for bottle storage. Front of table includes two smoked glass doors.

The vista lights operate from a 12 volt DC source. The On/Off switch is located in the drape channel on the back of the table just below the top.

DINETTE PACKAGE, "L" SHAPED

Dinette is a three place dinette with a motorized retractable table for increased kitchen work space. Option includes:

1. Eight strips of vista lights inside the ceiling fixture. Vista lights are wired to a separate switch.
2. Switches for in-out operation of dinette table, overhead fluorescent light fixture, vista lights and reading light are located in bottom of dinette overhead cabinet.

SEAT, CO-PILOT 33" W/POWER FOOTREST

This optional seat is a wider seat with power footrest and lumbar support. It has the same six way electric seat adjustments as the standard co-pilot seat.

FREEZER, 50 LB. CAPACITY

Freezer is located in the curbside center luggage compartment. It is mounted on a roll out tray, with latch on right side. Power is supplied by either 120 or 12 volt. (See manufacturer's operation manual for further information.)

GARBAGE DISPOSAL

The disposal is located under the sink bowl and requires 120 vac power via the generator or shoreline hook up. The switch controlling the disposal is in the kitchen base cabinet. (See manufacturer's operation manual for further information.)

SKYLIGHT

A skylight with sliding covers, roof mounted, is offered in the ceiling. To open the skylight for fresh air or light, slide covers outward by applying pressure on the cover handles.

To adjust covers for optimum sliding tension:

1. Remove caps over the screws which hold the skylight trim in place. Caps may be removed by lifting the edge with the tip of a small screw driver or knife blade.
2. Screws along straight section of frame may be loosened or tightened as required to obtain the desired sliding tension.

NOTE

Do not adjust the two screws on each end for slide tension purposes.

Occasional glass adjustment may be required to maintain weatherproof integrity. Follow adjustment instructions that are printed on the skylight glass to obtain proper sealing between glass and rubber gasket.

CAUTION

Improperly installed glass can lift while vehicle is in motion.

GENERATOR AUTO-START OPERATION

The auto-start system is comprised of two switches, a system board, a 120 VAC voltage monitor, and a generator flywheel sensing element.

The auto-start system monitors both DC and AC voltages. With the auto-start enable switch ON, DC and AC voltages are monitored. The AC switch has two positions: 1) low AC volts, and 2) no AC volts. With the AC switch in the low AC volts position, the generator will crank if the voltage is between 60 VAC and 105 VAC. If the AC voltage drops below 60 VAC, the generator will not crank.

With the switch in the no AC volts position, the generator will crank at voltages less than 105 VAC.

The DC voltage set point is 11.25 VDC. If the DC voltage drops below 11.25 VDC, the generator will crank.

WARNING

Be sure the auto-start enable switch is OFF prior to rolling out the generator tray for maintenance or fluid checks.

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SAFETY & SECURITY FEATURES

FIRE EXTINGUISHER

A portable, multi-purpose dry chemical fire extinguisher is located behind the rear living room companion chair. A second fire extinguisher is located in an outside coach compartment. To use, release the clamp and remove the fire extinguisher from the bracket, pull safety pin from handle, squeeze handle and apply chemical under flame.

SMOKE DETECTOR

A smoke detector (now code mandated) is installed over the rear dinette seat. A warning label is attached to the exterior of the smoke detector.

LP GAS LEAKAGE DETECTOR

The gas leakage detector, is located in the kitchen base cabinet. In the event of an LP leak, the unit sounds an alarm and closes the main LPG supply by deactivating the solenoid valve located in the high pressure gas line just before the regulator. See LPG Leak Detector System for additional information.

HEAT ALARM

Heat alarm sensors are located at the 120V distribution panel and in the refrigerator vent stack. A buzzer in the pilot's front overhead will sound if excessive heat is detected in either area.

BURGLAR ALARM

The security of your motor home and contents are assured by an intruder alarm system which protects windows and entry door. The windows are protected by two glass breakage sensors, which are located in the bedroom and living room area. These sensors trigger an alarm if a window is opened. The entry door uses a door jamb switch which activates the alarm when the door is opened. A panic switch, located on the bedroom control panel, allows you to alarm the system any time that a disturbance is noted. To arm or disarm the system, use the key chain (RF) wireless transmitter. For more detailed information, see manual in owner's kit.

A/T SWITCH

Anti-theft switch for the ignition circuits (A/T switch on lower dash) can be operated so that the unit cannot be started. This also serves as the coach master switch.

MIRRORS

All interior mirrors meet ANSI A119, and 297.1 codes, for your safety.

POWER CORDS & HOOK UP

Your coach is supplied with a permanently attached 50 amp power supply cord, in the utility compartment (road side rear), for hook up to an external power source.

In addition, a single 30A twist lock connection is supplied to provide two 30A 120 vac lines (from separate external circuits in conjunction with the 50A fixed cord and 50A/30A adapter). This will permit use of all motor home appliances without overloading the supply lines. The total cord complement is as follows:

- 50A male (1) fixed
- 50A female to 30A male (1)
- 30A female to 30A male (1)
- 30A female to 30A male extension (2)
- 30A female to 20A male adaptor (2)

Note that each cord has a ground pin which provides proper electrical system grounding.. The ground pin is your personal protection from electrical shock hazards. **Do not use any adapter, cheater, or extension cord that will break the continuity of the grounding circuit. Never remove the grounding pin for convenience of being able to make a connection to a non-grounded receptacle!**

Never operate your coach with a "hot skin"! If you can feel even a slight "tingling" shock from touching the coach body while standing outside on the ground, immediately disconnect the electrical hookup until the trouble is located. This fault is usually caused by a break in the grounding circuit, which should be continuous from the coach skin or frame to the distribution panel board to the ground pin on the power supply cord, and from there to the park receptacle and earth ground.

NOTE

In order to keep the utility compartment clean while traveling. Move the flap located at the bottom of the compartment to its outward position and then shut the compartment door.

SHORELINE OPERATION (COMMERCIAL POWER)

CAUTION

Your motor home has been wired in accordance with the National Electrical Code. All 120 volt AC wiring is two-wire service with ground; all 240 volt wiring is three-wire service with ground. For personal safety, check the polarity detector indicators on the power line monitors to be sure that lines are properly connected and grounded.

CAUTION

During thunderstorms lightning strikes may detrimentally impact the electrical system of your coach just as it would your home. To avoid potential catastrophic damage to sensitive electronic devices in your coach, disconnect shore power and cable television service prior to electrical storms reaching maximum intensity.

CAUTION

If the ground pin is used as a starting point for insertion of the 50 amp plug, the possibility exists that an over voltage condition will occur on the 120 volt lines, ie, the neutral pin of the plug will not make contact at the same time the two 120 volt pins and thus, without the neutral pin making contact as a voltage reference 240 volts may be presented to the 120 volt appliances.

Therefore, to reduce the possibility of over voltage, switch off the 50 amp main breakers located in the 120 volt ac load center prior to insertion and removal of the 50 amp plug. In addition, insert and remove the 50 amp plug straight into the receptacle instead of tilting the plug. (See Power Cord Hookup Illustration in last section of manual.)

For purposes of safety, observe all precautions when making **SHORELINE** connections. Poor grounding or incorrectly-wired receptacles can cause personal harm as well as equipment damage or fire hazards. Check reverse polarity indicator in shoreline/utility compartment to verify correct polarity and grounding of hookup.

30 AMP ADDITIONAL SERVICE HOOKUP

First, connect the shoreline to the coach (rotate plug clockwise to assure firm connections). The coach receptacle is located in the left side utility compartment. Connect the other end of the shoreline to the power source. Poor grounding or incorrectly-wired receptacles can cause personal harm as well as equipment damage or fire hazards. Check reverse polarity indicator in shoreline/utility compartment to verify correct polarity and grounding of hookup.

ELECTRICAL RATINGS FOR MOTOR HOME APPLIANCES

In many instances, the shoreline hookups will not be rated to operate all electrical appliances in your coach. Check with facility personnel to determine the maximum current capability of the hookup. Sometimes, only one air conditioner may be operated.

ITEM**CURRENT RATING
(AMPERES)**

Air Conditioners	13,500 BTU (Run) 15.0-18.0
Water Heater	13.8
Television Receivers (Color)	1.0
Battery Charger <i>(depends on battery condition/load)</i>	0 to 14.0
Engine Block Heater	10.0
Electric Heaters	
Interior Heater	12.5
* Battery Heaters	1.2
Heat Tapes	3 watts/ft
Microwave Oven	15.0
Food Center	4.0
Refrigerator	2.7
Ice Maker	Start 15, Run 2.5
Instant Hot Water	6.5
*Optional Item	

SHORELINE OPERATION ... TROUBLESHOOTING

Your coach is designed and tested to make sure the 120 volt AC Neutral (white) wire and the Ground (bare copper or green) are not tied together (no continuity). This will prevent any danger of a "hot skin" if the source of power has reversed polarity (red LED lit) as indicated on the polarity indicator panels located on the right hand overhead aux. panel and in the utility compartment.

Problem**Probable Cause****Corrective Action**

Yellow LEDs lit ... Normal (desired)

Red LEDs lit

Reversed Polarity at power source.

Convince park management to correct or change lot assignment.

Neither Red or Yellow LED lights

No ground connection with park service

Use jumper lead from ground pin on shore cord to service box.

Power source (park) circuit breaker trips.

Reversed polarity in park and coach neutral and ground tied together.

Use on-board generator until qualified electrician can correct coach problem.

(Generator polarity is correct).

Yellow LED's lit plus Red LED's glow when additional load is turned on (Air Conditioner or Water Heater).

Poor ground connection at park (floating ground).

Make sure shoreline plug is fully engaged. Twist locked (clockwise) at coach.

SAFELINE ALARM

See **Overhead** dash for function.

TRANSMISSION

IMPORTANT

Your Wanderlodge® is equipped with an Allison model HD-4060 electronic 6 speed World Transmission. Refer to the operator's manual supplied in your owner's package before vehicle operation.

TRANSMISSION SPECIFICATIONS

NO. SPEEDS GEARS**RATIOS**

First	3.51
Second	1.91
Third	1.43
Fourth	1.00
Fifth	0.74
Sixth	0.64
Reverse	4.80

Torque Converter
Lubricant Capacity

TC 541-1.9 Stall Ratio
37 qts. (Includes Filter and Cooler)
Dexron II (or Mecron)

Bellhouse Size
Companion Flange
Dipstick Location

SAE #1
1810 Spicer
Left side of engine (at rear)

VIDEO & AUDIO

STEREO TELEVISION RECEIVER

Installed in the front overhead. Operates from a 120 volt source (inverter, shoreline or generator). Will not operate while in transit. Refer to owner's manual supplied with set for operating instructions.

TELEVISION RECEIVER

Installed in the bedroom. Operates from a 120 volt source (inverter, shoreline or generator). Refer to owner's manual supplied with set for operating instructions.

AUTOMOTIVE STEREO

Installed in the lower right dash. Is comprised of a tuner/cassette with two (2) 6 x 9 inch coaxial speakers, and two (2) 4 x 10 inch coaxial speakers. The tuner/cassette has auto reverse, electronic tuning sensor, Dolby noise reduction and metal tape capabilities.

The speakers are located two (2) in the living room and two (2) in the front overhead. See instruction manual for operating instructions.

STEREO SYSTEM

AM/FM tuner cassette with electronic tuning and auto reverse located in the bedroom night table with two (2) 6 1/2 inch coaxial speakers.

CLOSED CIRCUIT TV SYSTEM

Includes a monitor which enables the operator to view behind the coach for purposes of backing, or passing other vehicles on the highway.

The rear-facing CCTV camera transmits images directly to the monitor via coach cabling.

Note that the system requires a brief warmup period before achieving full resolution. CCTV camera controls are preset and the standard lens supplied with the unit is designed to focus from about two feet to infinity.

CB RADIO

CB radio is in compartment (floor) at driver's right leg. Refer to CB Operator's Manual for additional information.

STEREO VIDEO CASSETTE RECORDER

Installed in co-pilot side of overhead dash. Operates from a 120 volt source (inverter, shoreline or generator). Refer to owner's manual supplied with the VCR for operating instructions. Stereo audio is routed to front stereo television.

VIDEO CONTROL CENTER

Installed in the overhead dash above the pilot. Provides independent switching capabilities for two (2) VCR's, TV antenna, cable TV, and a TV game to the television sets. Provisions have been made for the installation of a second VCR to be connected near the rear television.

With a second VCR installed, it becomes possible to record video tapes between the two VCR's. The following procedure allows this to be accomplished.

- Place the tape that is going to be played in VCR 2 (the rear VCR).
- Place the tape that is going to be recorded in VCR 1 (the front VCR).
- The TV/VCR button on VCR 2 should be depressed.
- The VCR 2 button that is listed under the VCR 1 input of the video control center should be depressed.
- Press the play button on VCR 2 and the record button on VCR 1.
- The VCR's are now recording the tape.

TV ANTENNA & ROTATOR SYSTEM

The control components of the radome-type TV roof antenna, are a hand held rotator, switch for the antenna or cable inputs and a switch for raising and lowering the antenna.

The antenna rotators, located in the co-pilot's front overhead compartment, and in bedroom control the position of the TV antenna within the radome. The three-position momentary switch (center OFF) provides right/left antenna rotation.

The Video Selector switch, located in the pilot's front overhead compartment, switches antenna or cable input.

The switches for raising or lowering the antenna are located in the Pilot's Area Overhead Dash, and in bedroom.

The radome includes an amplifier and rotator mechanism. The remote power supply operates from 12 volts dc. Low-loss coaxial cable and three wire rotator control cable interconnect the antenna and power supply.

Note that the system is protected by a fuse in the front overhead load center. In the event that the TV set exhibits problems relating to low antenna input (ghosts, etc.) check this fuse before servicing the TV set.

ANTENNA OPERATION

With the TV on and a station tuned in, rotate the antenna by pressing the rocker switch located on the control unit. Press the right side of the switch to run the antenna clockwise; press the left side to turn the antenna counter-clockwise. Although the actual antenna movement is not visible, the indicator arrow on the control unit lights and shows the direction of movement. When the antenna has made one full turn (360 degrees), the End of Rotation light comes on. Observe the picture while rotating the antenna, first in one direction, then the other, to obtain best picture quality.

MUSICAL HORN

The lower dash panel has three different switches for use with the musical horn. The POWER switch provides power to the horn. When this switch is turned on, the selection display will light up and indicate selection number 0.

The SONG select switch controls the scanning of the song desired. When this switch is pressed in the up position, the selection display will begin to increment up, slowly at first and then increase in speed. When this switch is pressed in the down position, the selection display will increment down.

The PLAY switch, when depressed, initiates the selection displayed on the selection display. If this switch is depressed while a song is playing, the horn will automatically reset and repeat the song.

The volume control operation is controlled by operating the PLAY switch and the SONG select switch simultaneously. To increase volume, depress the PLAY switch and the SONG select switch in the UP position at the same time. To decrease volume, depress the PLAY switch and the SONG select switch in the DOWN position at the same time. The volume level will be displayed on the selection display in levels from L1 (lowest) to L5 (highest).

ELECTRONIC DOOR CHIME

The door chime is located in a removable compartment in the right hand overhead storage compartment.

The door chime can be preset to play any one of 60 different tunes when the doorbell button is pressed. All controls for tune selection, volume, tone and tempo are easily accessible. Tunes may be selected as follows:

1. Refer to tune index, at bottom of chime, and note the code number for the desired tune. For example, "William Tell Overture" is identified by D8.
2. Press in the left hand tune selector button and move it to position D.
3. Press in right hand button and move it to position 8.
4. Press test button to play selected tune and adjust volume, tone and tempo as desired. Note that tunes identified with an asterisk (*) will play longer if the button remains depressed.

PHONE OUTLETS, LAND LINE

Phone outlets are located in the bedroom and at rear of sofa. Connection is in utility box.

WASTE SYSTEM

Separate holding tanks for gray water and body waste are located in compartments directly in front of the drive wheels. Each holding tank has a separate drain valve, dumping gray water and wastes through a common single discharge connection. Separate vents from each holding tank extend through the roof of the coach.

Holding Tank Capacity: Approx. 160 Gallons Combined

DRAINING THE HOLDING TANKS

The body waste (brown) holding tank is drained first, then the gray water tank. Drain the holding tanks as follows:

NOTE

It is advisable to drive your unit for a short distance to agitate the contents of the holding tank before dumping.

1. Check that both drain valves are in a closed position before removing drain cap.
2. Remove the safety cap from the single discharge connection by turning in a counter-clockwise direction and connect the 3-inch sewer hose coupling to the end of the valve. Tighten securely, in a clockwise direction. The sewer hose is stored behind door below fuel fill on road side. Place the discharge end of the hose into the sewer connection and check that all connections are secure to prevent accidental spillage.
3. Move the waste tank toggle switch on the power dump valve control panel (located in the roadside holding tank compartment) from the closed to the waste position. Then dump the gray tank by moving the toggle switch from the closed to the gray position

NOTE

The air system must be pressurized to use the power dump valve system. A manual operating tool is provided in the case of low or no air pressure.

4. After contents are emptied, dislodge remaining solids in the body waste tank by attaching a garden hose to the water inlet labeled "sewer." Valve must be open when using this inlet. Flush for about 2 minutes.

NOTE

Do not use the same hose to fill your potable (fresh) water tank that is used for the flushing system.

5. Disconnect garden hose from faucet and lay on ground to allow water to drain from the system before detaching from water inlet.

6. After flushing the body waste tank, move the toggle switches to the closed position.

NOTE

To clean the holding tanks, add a detergent solution to the tanks after they are emptied. The agitation action caused by vehicle movement will clean the tank.

7. Disconnect and wash out the sewer hose. Replace hose and replace safety cap securely.

HOLDING TANK DRAIN VALVE MAINTENANCE

Periodically the drain valve may become difficult to open. It is recommended that the (2) two screws in top of mechanism be removed and pull paddle out. After cleaning paddle, a coat of Vaseline should be added to both surfaces and valve reassembled.

WASTE TANK LEVEL INDICATORS

Each holding tank has a level detector which provides an electrical input to the Systems Monitor panel in the galley area. Activate the display to read the level of liquid remaining in each tank by pressing the appropriate push button switch.

WINTERIZING HOLDING TANKS

Drain the holding tanks and add RV antifreeze (several quarts) to each tank through the toilet (into the sewage tank), and through the tub/shower drain (gray water tank).

WINTERIZING FIXTURE TRAPS

In addition to the above, pour a pint of RV antifreeze into the kitchen sink and bathroom lavatory drains.

TOILET

The Microphor toilet (12 volt electric or air flush) operates from the fresh water supply, flushing wastes directly into the sewage (body waste) holding tank.

NOTE

A water pump must be on or coach connected to city water to operate toilet.

WINTERIZING TOILET

See toilet user manual in owner's kit.

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01/13/99

15:40

PAGE 1 OF 5

SEE PAGE 5 OF 5 FOR REVISIONS AND EFFECTIVITY

REF	DESCRIPTION	FROM	TO	NOTE	COLOR	NO	REV
1	SUSP DUMP LT	P1-1	P5-1		PNK	1153B	
2	RADAR DETECTOR	P1-2	P9-1		ORN/BLK	31	
3	DASH IGN PWR	P1-3	P6-12		BLK	1102J	
4	DASH IGN PWR	P6-12	P7-15		BLK	1102J	
5	QUICK START PWR	P7-15	P8-10		BLK	1102J	
6	DASH IGN PWR	P8-10	P10-24		BLK	1102J	
7	DASH IGN PWR	P10-24	P15-14		BLK	1102J	
8	PYROMETER YEL	P1-4	P8-11		YEL	1418	
9	PYROMETER RED	P1-5	P8-12		RED	1418A	
10	AUX COMP REL PWR	P1-6	P9-4		WHT	53	
	COMPT UNLOCK	P5-10	P1-7		BLU/BLK	4	A
11	COMPT UNLOCK	P1-7	P22-24		BLU/BLK	4	A
	COMPT LOCK	P5-9	P1-8		GRN	2	A,D
12	COMPT LOCK	P1-8	P22-23		GRN	2	A,D
13	LOW WASH FLUID	P1-9	P9-5		BLK	11	
14	WTR IN FUEL CNTM	P1-10	P8-13		TAN	1455	
15	LOW WASH FLUID	P1-11	P9-6		BLK	12	
16	SUSP DUMP	P1-12	P18-9		RED	1808A	
17	LWR DASH GND	P1-13	GND BUS BAR		WHT	14	
18	LWR DASH GND	P1-14	GND BUS BAR		WHT	14	
19	SPDOMETER S DDEC	P1-15	P11-12		BLU/BLK	1419B	
20	TACH SENSE	P1-16	P11-23		GRY	1406	
21	AISLE LTS	P1-17	P21-6		BRN	12	
22	AISLE LTS	P1-18	P21-7		BRN	11	
23	AUX STEP DASH LT	P1-20	P9-8		YEL	15	
24	DASH LEDS MAS	P1-21	P9-9		ORN/BLK	46	
25	COMPT LOCK PWR	P1-22	P8-15		BLK	1130E	
26	FAN CONTROL	P1-24	P5-22		ORN/BLK	1516	
27	AUX AIR COM	P2-1	P21-8		BLK	27	
28	AUX BAT	P2-2	P9-11		PUR	10	
29	AUX BAT	P9-11	P21-9		PUR	10	
30	BACK-UP ALARM	P2-3	P21-10 P18-12	Lt. Blue	BLU	39	1322K
31	REAR PARKING LTS	P2-4	P18-13		YEL	1322C	
32	MONITOR SIG	P18-13	MONITOR	C 4FT	YEL	1322C	
33	AQUA HOT	P2-5	P21-11		GRN/WHT	5	
34	AQUA HOT	P2-6	P21-12		BLK	6	
35	AQUA HOT	P2-7	P21-13		YEL	7	
36	AQUA HOT	P2-8	P21-14		YEL/BLK	8	
37	MIRROR HEAT	P2-9	MIRRORS ORN	A&E 4FT	BLK	7	
38	HORN SW (ELEC)	P2-10	P11-14		GRN	2107A	
39	LEVEL JACK WRN LT	P2-11	BUZZ3(-)	B 4FT	YEL/BLK	10	C
40	LVL JACK WRN BUZZ	P18-22	BUZZ3(-)	B 4FT	PUR	1810	C
41	LANDING LTS LH	P2-12	P5-17		GRN	1329B	
42	LANDING LTS RH	P2-13	P5-18		GRN	1329A	
43	TRIPMETER	P2-15	P21-15		RED	19	
44	ATEC DIMMER	P2-16	P11-16		BLU	16	
45	EQUALIZER DIM	P11-16	P12-10		BLU	16	
46	UPR PNL GAUGE LTS	P12-10	P6-9		BLU	16	

SEE PAGE 5 OF 5 FOR REVISIONS AND EFFECTIVITY

REF	DESCRIPTION	FROM	TO	NOTE	COLOR	NO	REV
47	OH PNL GAUGE LTS	P6-9	P21-16		BLU	16	
48	STEP SYSTEM	P2-18	P21-18		ORN/BLK	1	
49	STEP SYSTEM	P2-19	P21-19		ORN/BLK	2	
50	TAG AXLE DUMP	P2-20	P18-10		BLU	1808B	
51	HORN SW AIR	P2-22	P20-2		RED	7	
52	aisle LTS	P2-23	P22-10		ORN/BLK	11	
53	REAR PARKING LTS	P2-24	P22-11 P18-17	Lt Bluc	GRN/WHT	28	1322J
54	EL DIM	P3-1	EL INV INPUT		YEL	78	
55	FAN OVERRIDE	P3-2	P15-11		WHT MIL	1209C	
56	CRUISE CONTROL	P15-11	P14-1		WHT MIL	1209C	
57	HEADLIGHTS	P3-3	P8-4		GRN/BLK	1301B	
58	HDLT PWR	P3-4	P8-3		GRN/BLK	1301G	
59	CLEARANCE LGTS	P3-5	P8-2		BRN	1315B	
60	HDLT ALERT LT PWR	P8-2	P6-4		BRN	1315B	
61	OH PNL EL PWR	P6-4	P21-17		BRN	1315B	
62	THE "HORN" SW LT	P21-17	HORN MOD ORN	D 4FT	BRN	1315B	
63	HDLT ALERT PWR	P21-17	BUZZ2(+)	B 4FT	BRN	1315B	
64	W/S WIPER	P3-6	STEERING	B 4FT	BLU	2102B	
65	TOP DOOR LOCK RLY	P3-8	P9-12		ORG/BLK	18	
66	RADAR DECTOR	P3-9	P22-13		BLK	12	
67	HORN SW COM	P3-11	STEERING	B 4FT	BLK/YEL	9	
68	W/S WIPER DELAY	P3-13	STEERING	B 4FT	BLK	2102C	
69	DIR LT RH	P3-14	P18-6		GRN	1323D	
70	DIR LT LH	P3-15	P18-7		YEL	1313C	
71	SECURITY SW SIG	P3-16	P20-15		GRY	23	
72	TRAN TEMP LGT	P3-17	P11-18		GRN	1405	
73	TRANS TEMP "S"	P3-18	P11-24		GRN	1405A	
74	DIR LT. RELAYS	P3-20	P18-5		GRN/BLK	1332B	
75	GEN AUX BATT	P3-21	GEN AUX SOL	A 6FT	BLK	21	
76	GEN AUTO START	P3-22	GEN AUTO PWR	A 6FT	GRN	1	
77	GEN AUTO START	P3-23	P9-14		GRN	71	
78	HDLT HI BEAM IND	P3-24	P18-8		GRN/BLK	1301J	
79	DRIVING LGTS IND	P18-8	P16-13		GRN/BLK	1301J	
80	BURG ALARM MODULE	P4-9	ALARM MOD	C 6FT	RED	1	
81	LEVEL WARNING	P4-10	BUZZ3(+)	B 4FT	BLU/BLK	5	
82	LEVELING JACK MAS	P4-11	P20-9		RED	14	
83	LEVELING JCK ING	P4-12	P20-10		BRN	8	
84	STEP SYSTEM	P4-13	P20-11		BLK	9	
85	IGN RELAY OH FRT	P4-14	P20-12		ORN/BLK	30	
86	ELEC MASTER SW	P4-15	P20-13		YEL	44	
87	STEP SYSTEM	P4-16	P20-14		RED	11	
88	STEP SYSTEM	P4-17	STEP LGTS	D 6FT	YEL	9	
89	STEP SYSTEM	P4-18	P21-5		BLU	6	
90	STOP ENG BUZZ (+)	P4-19	BUZZ1(+)	B 4FT	ORN/BLK	14	
91	CELL PHONE MEMORY	P4-20	CELL PHONE	C 8FT	BLU	21	
92	COMP LT MASTER	P4-21	COMPT LGTS	A 12FT	YEL	8	
93	UTILITY CMPT LT	P4-22	P22-15		GRY	15	
94	CELL PHONE PWR	P4-23	CELL PHONE	C 8FT	RED	21	

SEE PAGE 5 OF 5 FOR REVISIONS AND EFFECTIVITY

REF	DESCRIPTION	FROM	TO	NOTE	COLOR	NO	REV
95	STEP SYSTEM	P4-24	DOOR&SAFTY SW	E 4FT	GRY	29	
96	INSTRM, ALT/CHG	P6-1	P22-16		BLK	3	
97	INSTRM, ALT/CHG	P6-2	P22-17		YEL	3	
98	A/T SYSTEM	P6-3	P9-16		GRN	53	
99	HDLT ALERT LT SIG	P6-5	P18-14		WHT	1208U	
100	HDLT ALERT LT	P18-14	BUZZ2(-)	B 4FT	WHT	1208U	
101	UPR DASH GND	P6-7	GND BUS BAR		WHT	14	
102	UPR DASH GND	P6-8	GND BUS BAR		WHT	14	
103	COACH VOLTS	P6-14	P22-18		YEL	15	
104	ENG FIRE ALARM	P6-15	P5-20		RED	1433A	
105	ENGINE VOLTS	P6-16	P5-6		BLU	1434A	
106	LOW AIR BUZZ (-)	P6-17	P11-20		BRN	1431	
107	LOW AIR BUZZ (-)	P11-20	BUZZ4(-)	B FT	BRN	1431	
108	WATER TEMP "S"	P6-18	P11-7		GRN	1416A	
109	MSTR PWR CNTL	P6-19	P5-19		RED	1519	
110	A/T SYSTEM	P5-19	P9-18		RED	1519	
111	MSTR SOL 12V	P9-18	MSTR SOL	A 11FT	RED	1519	
112	ENG OIL PRESS "S"	P6-20	P11-2		BLU/BLK	1417A	
113	LOW FUEL LT "S"	P6-21	P8-9		TAN	1402	
114	FUEL LEVEL "S"	P6-22	P11-13		TAN	1403	
115	ENG OIL TEMP "S"	P6-23	P11-1		BLU/BLK	1410	
116	DOOR LOCK PWR	P7-1	P10-7		ORN	20	
117	RECP 12V PWR	P7-3	P10-9		GRN	15	
118	DOOR LOCK SW	P7-4	P10-10		BLK/YEL	2	
119	DOOR LK SW BEDRM	P10-10	P20-7		BLK/YEL	2	
120	DOOR LOCK SW	P7-5	P10-11		BLK	1	
121	DOOR LK SW BEDRM	P10-11	P20-8		BLK	1	
122	A/C ON SIG	P7-10	P5-23		GRN	1150B	
123	RECP 12V GND	P7-12	GND BUS BAR		WHT	14	
124	DOOR LK LT	P7-13	DOOR SOL	E 4FT	BRN/ORN	3	
125	COLD START SW	P7-14	P8-14		BLK	1156	
126	TOP DOOR LOCK	P9-13	P20-5		GRN	25	
127	DOOR LOCK	P9-21	DOOR SOL	E 4FT	BLK/YEL	1	
128	DOOR LOCK	P9-22	DOOR SOL	E 4FT	BLK	0	
129	ELEC SEAT LH	P9-23	PILOT SEAT	A 9FT	RED	15	
130	CB RADIO PWR	P10-1	CB RADIO	C 6FT	RED	5	
131	MUSICAL HORN PWR	P10-2	HORN MOD	D 5FT	BRN/ORN	4	
132	BEDRM STEREO PWR	P10-3	P20-6		BLU	10	
133	ALT IND LGT	P10-6	P11-9		YEL	1428A	
134	NEUTRAL SIG	P10-8	P8-8		WHT/BLK	1515L	
	LH COMPT INTLK	P10-12	P8-5		GRN/WHT	1298	
135	LOW WASH FLUID	P10-14	SENSOR	A 9FT	WHT	5	
136	LOW WASH FLUID	P10-15	SENSOR	A 9FT	WHT	7	
137	LOW AIR BUZZ (+)	P10-17	BUZZ4(+)	B 4FT	ORN/BLK	19	
138	A/T ST SIG	P10-18	P11-10		PUR	1115A	
139	PRK BRK SIG	P10-19	P5-8		WHT/BLK	1515G	
140	LEVEL JACK MASTER	P10-20	P20-4		BLU	22	
141	TUNER/CASSETTE	P12-1	P10-4		BLU/BLK	7	

B

SEE PAGE 5 OF 5 FOR REVISIONS AND EFFECTIVITY

REF	DESCRIPTION	FROM	TO	NOTE	COLOR	NO	REV
142	TUNER/CASS MEMORY	P12-2	P9-24		BLK	24	
143	RADIO GND	P12-3	GND BUSS BAR		WHT	14	
144	EQUALIZER PWR	P12-4	P10-5		GRN	55	
145	IGN SW BAT	P12-6	P8-7		BLK	1101G	
146	HAZARD LT PWR	P8-7	P3-19		BLK	1101G	
147	IGN SW IGN	P12-7	P11-8		PNK	1102A	
148	IGN SW IGN	P11-8	P5-21		PNK	1102A	
149	IGN SW ST	P12-8	P10-22		BLK	15	
150	ENG BRK HIGH	P15-1	P5-2		WHT/BLK	1517H	
151	ABS LGT	P15-2	P11-11		GRN	1430	
152	CHECK ENG LT	P15-4	P14-5	ORN MIL	PUR/WHT	1426	
153	CRUISE ENB LGT	P15-5	P11-3		YEL	1424	
154	STOP ENG LT	P15-6	P14-6	YEL MIL	PUR	1427	
155	STOP ENG BUZZ(-)	P14-6	BUZZ1(-)B 4FT	YEL MIL	PUR	1427	
156	CRUISE RESUME ON	P15-8	P11-5		BLU/YEL	1508A	
157	CRUISE SET ON	P15-10	P11-6		YEL/RED	1508B	
158	LOW COOLANT LGT	P15-12	P5-5		BLU	1420D	
159	H IDLE/CRUISE ENB	P15-13	P11-4		BLU	1504	
160	ENG BRK ENB LGT	P15-15	P18-12		RED	1425A	
161	DO NOT SHIFT LGT	P15-16	P11-17		WHT/BLK	1432	
162	ENG BRK	P15-17	P5-3		RED/WHT	1517J	
163	ENG BRK ENABLE	P15-18	P11-19		PUR	1517D	
164	STOP ENG-OVERRIDE	P15-19	P14-8	GRN MIL	BRN/RED	1513A	
165	A/C HEAT CTR	P15-22	P22-20		GRN/WHT	2	
166	A/C HEAT FRT	P15-23	P22-21		WHT/BLK	1	
167	A/C HEAT REAR	P15-24	P22-22		YEL/BLK	3	
168	CLEARANCE LGTS	P16-2	P5-13		WHT	1203B	
169	MIRROR CNTL PWR	P16-3	P10-21		BLK/YEL	25	
170	FLUO LT PILOT	P16-4	P22-19		BLU	33	
171	GND W/PRK LGTS	P16-5	P18-11		WHT	1208T	
172	DRV UPR UP & DOWN	P16-6	LT MIRROR RED		RED	25	
173	PAS UPR UP & DOWN	P16-7	RT MIRROR RED		YEL	25	
174	DRV UPR LT & RT	P16-8	LT MIRROR BRN		BRN	25	
175	PAS UPR LT & RT	P16-9	RT MIRROR BRN		BLU	25	
176	DRV UPR COMMON	P16-10	LT MIRROR ORG		GRN	025	
177	PAS UPR COMMON	P16-11	RT MIRROR ORG		ORN	025	
178	SHIFT PNL GND	P16-14	GND BUS BAR		WHT	14	
179	DRV LWR UP & DOWN	P16-15	LT MIRROR GRN		ORN	25	
180	PAS LWR UP & DOWN	P16-16	RT MIRROR GRN		GRN	25	
181	DRIVING LIGHTS	P16-17	P18-15		RED	1308D	
182	DRV LWR LT & RT	P16-18	LT MIRROR YEL		RED	025	
183	CLEARANCE LGTS	P16-19	P5-24		BLU	1310G	
184	CLEARANCE LGTS	P16-20	P5-12		GRN/BLK	1310B	
185	PAS LWR LT & RT	P16-21	RT MIRROR YEL		YEL	025	
186	DRV LWR COMMON	P16-22	LT MIRROR BLU		BRN	025	
187	PAS LWR COMMON	P16-23	RT MIRROR BLU		BLU	025	
189	WTR IN FILTER	P20-1	P8-16		BLK	1456	
190	GEN ACTUATOR	A 8FT	E 4FT		YEL10GA	0	

SEE PAGE 5 OF 5 FOR REVISIONS AND EFFECTIVITY

REF	DESCRIPTION	FROM	TO	NOTE	COLOR	NO	REV
191	WASHER FLUID PWR	A 10FT	B 4FT		PUR	53	
192	BURG ALARM HORN	A 13FT	C 6FT		BRN	1	
193	ENT DOOR ALARM SW	D 5FT	E 3FT		ORN/BLK	3	
194	SAFTY RIBBON	D 7FT	E 4FT		YEL/BLK	02	
195	EL INVERTERS	A 6FT	B 4FT		6 COND	12	
196	EL INVERTERS	A 6FT	B 4FT		6 COND	13	

REV. EFFECTIVITY

A' F124511 AND LATER
HARNESS CONSTRUCTION
F124510 AND PREVIOUS
RETROFIT

DESCRIPTION

ADDED LH BAGGAGE DOOR INTERLOCK

B' F124511 AND LATER
HARNESS CONSTRUCTION
F124510 AND PREVIOUS
RETROFIT

ADDED COMPARTMENT LOCK/UNLOCK INTERFACE
TO BODY CO. HARNESS

C' F124511 AND LATER
HARNESS CONSTRUCTION
F124510 AND PREVIOUS
RETROFIT

CHANGED "BUZZ3(-)", PG 1 OF 5, TO
INTERFACE WITH BODY CO. HARNESS

'D' F124780 AND LATER FOR
HARNESS CONSTRUCTION

CHANGED COMPT. LOCK, GRN #18, PG.1,
TO GRN #2, TO MATCH OH LD. CTR LABEL

REF	DESCRIPTION	FROM	TO	NO	COLOR	HARNESSES
41	BEDRM DOOR LK SW	BEDRM SW	P27-16	2	BLK/YEL	LH
42	BEDRM DOOR LK SW	BEDRM SW	P27-17	1	BLK	LH
112	BURG COMPT LOCKS	BURGLAR ALARM	P30-23	2	GRN	LH
113	BURG COMPT LOCKS	BURGLAR ALARM	P30-24	4	BLU/BLK	LH
8	STOP ENG BUZZ	BUZZER (-)	P26-01	1427	PUR	X
11	LOW AIR LT	BUZZER (-)	P26-04	1417B	BLU/BLK	X
14	HORN SW	HORN SW	P26-07	9	YEL	COL HAR
15	AIR HORNS	AIR HORN SOL	P26-08	7	RED	LH
16	LEVEL JACK WRN LT	BUZZER (-)	P26-10	10	YEL/BLK	X
17	LEVELING JACK SIG	LEVEL JACK COMP	P26-10		PUR	LEVEL
20	HDLT HI/LO PWR	COL SW-56	P26-14	20	WHT/BLK	COL HAR
28	ENT DOOR TOP LOCK	DOOR LOCK	P26-22	25	GRN	RH
33	HDLT ALERT BUZZ	BUZZER (-)	P27-08	1208U	WHT	X
34	HDLT ALERT BUZZ	BUZZER (+)	P27-09	1315B	BRN	X
35	HDLT ALERT LT	BUZZER (+)	P27-10	1315B	BRN	X
65	AISLE LTS	AISLE LTS	P28-19	12	BRN	LH
66	AISLE LTS	BEDRM SW	P28-20	11	BRN	LH
68	AUX COMPRESSOR	COMP RELAY	P28-22	27	BLK	X
71	AUX BATT	AUX BATT SOL	P29-01	10	PUR	LWR
72	BACK-UP ALARM	ALARM MODULE	P29-02	39	BLU	LH
73	AQUA HOT	CONTROL SW	P29-03	5	GRN/WHT	LH
74	AQUA HOT	CONTROL SW	P29-04	6	BLK	LH
75	AQUA HOT	AQUA HOT LT	P29-05	7	YEL	LH
76	AQUA HOT	AQUA HOT LT	P29-06	8	YEL/BLK	LH
80	MIRROR HEAT	MIRRORS	P29-10	7	BLK	LWR
81	TRIPMETER	OH TRIPMETER	P29-11	19	RED	LH
82	OH PNL GA LTS	OH PNL GA LTS	P29-12	16	BLU	LH
83	OH PNL EL PWR	OH EL DIMMER	P29-13	16	BLK	LH
84	AUX STEP 3-WAY SW	STEPWELL SW	P29-14	1	ORN/BLK	RH
85	AUX STEP 3-WAY SW	STEPWELL SW	P29-15	2	ORN/BLK	RH
87	AISLE LTS	BEDRM SW	P29-17	11	ORN/BLK	LH
88	REAR PARKING LTS	REAR LD CTR	P29-18	20	GRN/WHT	LH
89	GEN AUTO START	GEN AUTO PWR	P29-20	79	YEL	X
90	RADAR DETECTOR	RADAR DETECTOR	P29-21	12	BLK	LH
91	GEN AUX BATT	GEN AUX BATT SOL	P29-22	21	BLK	X
92	WIPER DELAY	COL SW-53	P29-23	7	GRN	COL HAR
93	WIPER DELAY	COL SW-J	P29-24	8	RED/BLK	COL HAR
95	INSTRM, ALT/CHG	SHUNT	P30-02	3	BLK	RH
96	INSTRM, ALT/CHG	SHUNT	P30-03	3	YEL	RH
97	BATTERY VOLTS	ENG COMP	P30-05	15	YEL	LH
99	A/T SYSTEM	MASTER SOL 12V	P30-07	77	RED	LWR
102	FLUO LT PILOT	FLUO LT	P30-13	33	BLU	LH
107	COMPT LOCK SW	COMPT LOCK SW	P30-18	2	GRN	LH
108	COMPT LOCK SW	COMPT LOCK SW	P30-18	18	GRN	RH
109	COMPT UNLOCK SW	COMPT UNLOCK SW	P30-19	4	BLU/BLK	LH
110	COMPT UNLOCK SW	COMPT UNLOCK SW	P30-19	18	ORN	RH

REF	DESCRIPTION	FROM	TO	NO	COLOR	HARNESS
1	CONSTANT 12V	MASTER SOL 12V	BRK1-2	21	RED 1/0	X
2	MASTERED 12V	105A BRKR	BRK2-2	22	RED 1/0	X
3	HDLT FLASH	COL SW-15/1	BBBC LC	20	RED	COL HAR
4	FILTER 12V	FILTER 12V OUT	K37-30	44	YEL10GA	LH
5	STEP LTS (GND)	GND BUS BAR	LT SW	2	WHT	RH
6	STEP LTS (SW GND)	STEP LTS	LT SW	9	WHT/BLK	X
7	W/S WASHER	COL SW-53C	MOTOR	53	PUR	LWR
9	STOP ENG BUZZ	BUZZER (+)	P26-02	18	ORN/BLK	X
10	LOW AIR BUZZ	BUZZER (-)	P26-03	1417B	BLU/BLK	X
12	LOW AIR BUZZ	BUZZER (+)	P26-05	19	ORN/BLK	X
13	RACOR FILTER LT	RACOR FILTER LT	P26-06	11	PUR	LH
18	DIRECTIONAL LTS	COL SW-R	P17-9	1332	GRN/BLK	COL HAR
19	DIRECTIONAL LTS	COL SW-L	P17-10	1331	YEL/BLK	COL HAR
21	HDLT HI	COL SW-56A	P17-5	1301D	GRN/BLK	COL HAR
22	HDLT LO	COL SW-56B	P17-4	1301B	GRN/BLK	COL HAR
29	DOOR LOCK LT	DOOR LOCK LT	P26-24	3	BRN/ORN	LWR
30	CB RADIO PWR	CB RADIO	P27-01	5	RED	LWR
31	MUSICAL HORN PWR	HORN MODULE	P27-03	4	BRN/ORN	LWR
32	BEDRM STEREO PWR	BEDRM STEREO	P27-06	10	BLU	LH
36	DOOR LOCK	DOOR SOL	P27-11	1	BLK/YEL	LWR
37	DOOR LOCK	DOOR SOL	P27-12	0	BLK	LWR
38	LOW WASH FLUID	LO WASH SENSOR	P27-13	5	WHT	LWR
39	LOW WASH FLUID	LO WASH SENSOR	P27-14	7	WHT	LWR
52	ELEC SEAT LH	SEAT SW	P28-04	15	RED	LWR
115	PWR AMP FRT UPR	PWR AMP	SK29	9	YEL10GA	X
116	GEN ACTUATOR	GEN ACTUATOR	SK33	0	YEL10GA	LWR
117	FILTER 12V	FILTER 12V INPUT	SK60	44	BLK10GA	X
23	DIR LTS COL SW	CL SW-49A	P26-17	23	WHT/GRN	COL HAR
25	LEVEL JACK MASTER	COMPUTER	P26-20	21	BLU	LEVEL
46	W/S WIPER	COL SW-53B	P17-14	2102G	BRN	COL HAR
50	LEVEL JACK BUZZ	BUZZER (+)	P28-01	5	BLU/BLK	X
51	W/S WIPER	COL SW-15	P28-03	9	LT BLU	COL HAR
53	LEVEL JACK MASTER	LEVEL JACK COMP	P28-05	14	RED	X
55	LEVELING JACK IGN	LEVEL JACK COMP	P28-08		BRN	LEVEL
56	LEVEL JACK IGN	LEVEL JACK COMP	P28-08		YEL	LEVEL
57	STEP SYSTEM	STEPWELL SW	P28-09	9	BLK	RH
58	IGN RELAY OH FRT	OH FRT IGN RELAY	P28-10	30	ORN/BLK	LH
59	ELEC MASTER SW	LH FRT CMPT PNL	P28-11	44	YEL	LH
60	STEP SYSTEM	IN M-SW-NC	P28-13	11	RED	RH
61	STEP SYSTEM	DOOR SW	P28-14	29	GRY	LWR
62	STEP SYSTEM	SAFETY SW	P28-14	14	YEL/BLK	X
63	STEP SYSTEM	STEP LTS	P28-15	9	YEL	X
64	STEP SYSTEM	OUT M-SW-COM	P28-17	6	BLU	RH
77	COMP LT MASTER	COMP LTS	P29-07	8	YEL	LWR
94	UTILITY CMPT LT	UTILITY LT	P30-01	15	GRY	LH
100	CELL PHONE PWR	CELLULAR PWR	P30-08	21	RED	LWR

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PAGE 3 OF 3

REF	DESCRIPTION	FROM	TO	NO	COLOR	HARNESS
101	CELL PHONE MEMORY	CELL PHONE MEM	P30-11	21	BLU	LWR
114	FILTER 12V	ELEC MASTER SW	SK10	45	YEL10GA	LH
125	THE "HORN" SW LT	HORN" MODULE ORN	BUZZ +	0	ORN/BLK	LWR

T HIMES

WIRE LIST HARN INTERFACE AREA LWR FRT 98 WLXI 41'

W4INTFC

REF	DESCRIPTION	FROM	TO	COLOR	NO
1	ALT/CHRG AMPS	P6-1	M5-S	BLK	3
2	ALT/CHRG AMPS	P6-2	M5-I	YEL	3
3	A/T SYSTEM	P6-3	S2-2	GRN	53
4	FIRE ALARM	S2-2	DS13-2		
5	FIRE ALARM BUZZER	DS13-2	BUZZ1-RED		
6	HDLT ALERT LT	P6-4	DS14-2	GRN	54
7	HDLT ALERT LT	P6-5	DS14-1	WHT	1208U
8	GROUND	P6-7	DS11-1	WHT	14
9	GROUND	DS11-1	M1-G		
10	GROUND	M1-G	M2-G		
11	GROUND	M2-G	M3-G		
12	GROUND	M3-G	M4-G		
13	GROUND	M4-G	M6-G		
14	GROUND	M6-G	M7-G		
15	GROUND	P6-8	DS1-BLK1	WHT	14
16	GROUND	DS1-BLK1	DS2-BLK1		
17	GROUND	DS2-BLK1	DS3-BLK1		
18	GROUND	DS3-BLK1	DS4-BLK1		
19	GROUND	DS4-BLK1	DS5-BLK1		
20	GROUND	DS5-BLK1	DS6-BLK1		
21	GROUND	DS6-BLK1	DS7-BLK1		
22	GROUND	DS7-BLK1	DS8-BLK1		
23	GUAGE LTS	P6-9	DS1-BLK2	BLU	16
24	GUAGE LTS	DS1-BLK2	DS2-BLK2		
25	GUAGE LTS	DS2-BLK2	DS3-BLK2		
26	GUAGE LTS	DS3-BLK2	DS4-BLK2		
27	GUAGE LTS	DS4-BLK2	DS5-BLK2		
28	GUAGE LTS	DS5-BLK2	DS6-BLK2		
29	GUAGE LTS	DS6-BLK2	DS7-BLK2		
30	GUAGE LTS	DS7-BLK2	DS8-BLK2		
31	LOW AIR	P6-12	DS12-1	YEL	11
32	IGNITION	DS12-1	M1-I		
33	IGNITION	M1-I	M2-I		
34	IGNITION	M2-I	M3-I		
35	IGNITION	M3-I	M4-I		
36	DC VOLTS COACH	P6-14	M6-I	YEL	15
37	FIRE ALARM	P6-15	DS13-1	RED	1433A
38	FIRE ALARM BUZZER	DS13-1	BUZZ1-BLK		
39	DC VOLTS ENGINE	P6-16	M7-I	BLU	1434A
40	LOW AIR	P6-17	DS12-2	BRN	1431
41	WATER TEMP SENSE	P6-18	M1-S	GRN	1416A
42	A/T SYSTEM	P6-19	S2-1	RED	77
47	A/T SYSTEM	S2-1	P6-24	GRN	52
43	OIL PRESS SENSE	P6-20	M3-S	BLU/BLK	1417A
44	LOW FUEL SENSE	P6-21	DS11-2	TAN	1402
45	FUEL LEVEL SENSE	P6-22	M4-S	TAN	1403
46	OIL TEMP SENSE	P6-23	M2-S	BLU/BLK	1410
48	EL DIM	EL INV OUT-RED	DS9-BLK	RED	

REF	DESCRIPTION	FROM	TO	COLOR	NO
49	EL DIM	DS9-BLK	DS10-BLK	WHT	
50	EL DIM	EL INV OUT-WHT	DS9-WHT		
51	EL DIM	DS9-WHT	DS10-WHT		

REF	DESCRIPTION	FROM	TO	COLOR	NO
29	COCKPIT LT	P16-1	S4-1	ORG	30
30	CLEARANCE LGTS	P16-2	S5-3	WHT	1203B
	UPR MIRROR CNTL	P16-3	S10-1	BLK/YEL	25
	LWR MIRROR CNTL	S10-1	S11-1		
31	COCKPIT LT	P16-4	S4-2	BLU	33
	DRV UPR UP & DOWN	P16-6	S10-3	RED	25
	UPR MIRROR SW LGT	P16-5	S10-9	WHT	1208T
	LWR MIRROR SW LGT	S10-9	S11-9		
	PAS UPR UP & DOWN	P16-7	S10-4	YEL	25
	DRV UPR LT & RT	P16-8	S10-5	BRN	25
	PAS UPR LT & RT	P16-9	S10-6	BLU	25
	DRV UPR COMMON	P16-10	S10-7	GRN	025
	PAS UPR COMMON	P16-11	S10-8	ORG	025
35	FOG/DRIVING LTS	P16-13	S6-1	GRN/BLK	1301J
36	GROUND	P16-14	S14-1	WHT	14
37	GROUND	S14-1	S13-1		
38	GROUND	S13-1	S12-1		
39	GROUND	S12-1	S11-2		
	GROUND	S11-2	S10-2		
	GROUND	S10-2	S9-1		
40	GROUND	S9-1	DS2-BLK		
41	GROUND	DS2-BLK	DS3-2		
	DRV LWR UP & DOWN	P16-15	S11-3	ORG	25
	PAS LWR UP & DOWN	P16-16	S11-4	GRN	25
42	FOG/DRIVING LTS	P16-17	S6-2	GRN	1308A
43	DRIVING LGT IND	S6-2	R2-1		
44	DRIVING LGT IND	R2-2	DS2-RED		
	DRV LWR LT & RT	P16-18	S11-5	RED	025
45	CLEARANCE LGTS	P16-19	S5-2	BLU	1310G
46	CLEARANCE LGTS	P16-20	S5-1	GRN/BLK	1310B
	PAS LWR LT & RT	P16-21	S11-6	YEL	025
	DRV LWR COMMON	P16-22	S11-7	BRN	025
	PAS LWR COMMON	P16-23	S11-8	BLU	025
1	ENG BRK HIGH	P18-1	S8-2	RED	1517H
2	ABS LT	P18-2	DS3-1	GRN	1430
3	CHECK ENGINE	P18-4	DS8-2	PUR/WHT	1426
4	CRUISE ENABLED LT	P18-5	DS1-BLK	YEL	1424
5	STOP ENGINE LT	P18-6	DS7-2	PUR	1427
7	CRUISE RESUME ON	P18-8	S2-2	BLU/BLK	1508A
8	CRUISE SET ON	P18-10	S3-2	YEL/RED	1508B
9	CRUISE ENABLE SW	P18-11	S1-1	WHT	1206A
10	SIG GND	S1-1	S2-1		
11	SIG GND	S2-1	S3-1		
12	LOW COOLANT	P18-12	DS6-2	BLU	1420D
13	CRUISE ENABLE	P18-13	S1-2	BLU	1504
14	IGNITION	P18-14	DS8-1	ORG	35
15	IGNITION	DS8-1	DS7-1		
27	ENG BRK MED	DS7-1	DS6-1		
16	IGNITION	DS6-1	DS4-1		

REF	DESCRIPTION	FROM	TO	COLOR	NO
17	IGNITION	DS4-1	S7-1		
18	IGNITION	S7-1	S8-1		
19	IGNITION	S8-1	R3-1		
20	IGNITION	R3-2	DS5-RED		
21	IGNITION	S8-1	R1-1		
22	IGNITION	R1-2	DS1-RED		
23	ENG BRK ACTIVE LT	P18-15	DS5-BLK	RED	1425
24	DO NOT SHIFT LT	P18-16	DS4-2	WHT/BLK	1432
25	ENG BRK LOW	P18-17	S8-3	RED/WHT	1517J
26	ENG BRK ENABLE	P18-18	S7-2	PUR	1517D
28	STOP ENG OVERRIDE	P18-19	S9-2	BRN/RED	1513A
32	A/C-HEAT CTR	P18-22	S13-2	GRN/WHT	2
33	A/C-HEAT FRT	P18-23	S12-2	WHT/BLK	1
34	A/C-HEAT REAR	P18-24	S14-2	YEL/BLK	3

REF	DESCRIPTION	CONN	COLOR	NO
262	SUSP DUMP LT	P1-1	PNK	1153B
172	RADAR DETECTOR	P1-2	ORN	31
325	IGN PWR	P1-3	YEL	1
263	MIRROR HEAT PWR	P1-5	WHT	54
264	AUX COMP REL PWR	P1-6	WHT	53
210	LOW WASH FLUID	P1-9	BLK	11
211	LOW WASH FLUID	P1-11	BLK	12
265	SUSP DUMP	P1-12	BLU	1808A
188	LWR DASH GND	P1-13	WHT	14
189	LWR DASH GND	P1-14	WHT	14
329	aisle LTS	P1-17	BRN	12
330	aisle LTS	P1-18	BRN	11
192	AUX STEP DASH LT	P1-20	YEL	15
174	DASH LEDS MAS	P1-21	ORN	46
267	COMPT LOCK SW PWR	P1-22	WHT	20
367	FAN CONTROL	P1-24	ORN	1516
331	AUX AIR COM	P2-1	BLK	27
202	AUX BAT	P2-2	PUR	10
332	BACK-UP ALARM	P2-3	BLU	39
224	REAR PARKING LTS	P2-4	YEL	1322C
355	AQUA HOT	P2-5	GRN/WHT	5
346	AQUA HOT	P2-6	BLK	6
405	AQUA HOT	P2-7	YEL	7
347	AQUA HOT	P2-8	YEL/BLK	8
253	MIRROR HEAT	P2-9	BLK	7
268	HORN SW (ELEC)	P2-10	WHT	21
357	LEVEL JACK WRN LT	P2-11	YEL/BLK	10
333	LANDING LTS LH	P2-12	GRN	1329B
334	LANDING LTS RH	P2-13	GRN	1329A
335	TRIPMETER	P2-15	RED	19
336	ATEC DIMMER	P2-16	BLU	16
338	STEP SYSTEM	P2-18	ORN/BLK	1
339	STEP SYSTEM	P2-19	ORN/BLK	2
275	TAG AXLE DUMP	P2-20	BLU/BLK	1808B
358	HORN SW AIR	P2-22	RED	7
340	aisle LTS	P2-23	ORN/BLK	11
341	REAR PARKING LTS	P2-24	GRN/WHT	20
406	EL DIM	P3-1	YEL	78
250	FAN OVERRIDE	P3-2	WHT	1206A
225	LWR DASH 12V IGN	P3-5	GRN	31
134	W/S WIPER	P3-6	BRN	2102K
	TOP DOOR LOCK	P3-8	GRN	25
342	RADAR DECTOR	P3-9	BLK	12
359	HORN SW COM	P3-11	YEL	9
344	W/S WIPER DELAY	P3-12	GRN	7
345	W/S WIPER DELAY	P3-13	RED/BLK	8

REF	DESCRIPTION	CONN	COLOR	NO
	UPR PNL GAUGE LTS	P3-14	BLU	16
328	TRAN TEMP LGT	P3-17	GRN	1405
398	TRANS TEMP "S"	P3-18	GRN	1405A
343	GEN AUX BATT	P3-21	BLK	21
407	GEN AUTO START	P3-22	YEL	79
164	GEN AUTO START	P3-23	GRN	71
223	HDLT HI BEAM IND	P3-24	GRN/BLK	1301J
226	HAZARD LT PWR	P4-1	GRN	32
228	DIR LT. RELAYS	P4-2	GRN/WHT	1332A
230	HEADLIGHTS	P4-3	WHT/BLK	20
269	HDLT PWR	P4-4	GRN/BLK	1301G
390	WTR IN FUEL CNTM	P4-7	TAN	1455
392	PYROMETER YEL	P4-8	YEL	1418
393	PYROMETER RED	P4-9	RED	1418A
368	SPDOMETER S DDEC	P4-10	BLU/BLK	1419B
385	TACH SENSE	P4-12	GRY	1406
234	DIR LT RH	P4-14	GRN	1323D
235	DIR LT LH	P4-15	YEL	1313C
399	COMPT LOCK	P4-19	GRN	18
400	COMPT UNLOCK	P4-20	ORN	18
195	CLEARANCE LGTS	P4-21	BRN	1315B
380	INSTRM, ALT/CHG	P6-1	BLK	3
381	INSTRM, ALT/CHG	P6-2	YEL	3
236	A/T SYSTEM	P6-3	GRN	53
348	PRK LGTS	P6-4	BRN	1315B
137	HDLT ALERT LT	P6-5	WHT	1208U
197	UPR DASH GND	P6-7	WHT	14
198	UPR DASH GND	P6-8	WHT	14
	OH PNL GAUGE LTS	P6-9	BLU	16
270	UPR DASH 12V IGN	P6-12	YEL	11
382	COACH VOLTS	P6-14	YEL	15
383	ENG FIRE ALARM	P6-15	RED	1433A
384	ENGINE VOLTS	P6-16	BLU	1434A
360	LOW AIR BUZZ (-)	P6-17	BRN	1431
391	WATER TEMP "S"	P6-18	GRN	1416A
350	A/T SYSTEM	P6-19	RED	77
394	ENG OIL PRESS "S"	P6-20	BLU/BLK	1417A
395	LOW FUEL LT "S"	P6-21	TAN	1402
396	FUEL LEVEL "S"	P6-22	TAN	1403
397	ENG OIL TEMP "S"	P6-23	BLU/BLK	1410
238	A/T SYSTEM	P6-24	GRN	52
166	DOOR LOCK PWR	P7-1	ORN	20
176	RECP 12V PWR	P7-3	ORN	18
140	DOOR LOCK SW	P7-4	GRN	64
145	DOOR LOCK SW	P7-5	GRN	6

REF	DESCRIPTION	CONN	COLOR	NO
	A/C ON SIG	P7-10	GRN	1150B
199	RECP 12V GND	P7-12	WHT	14
361	DOOR LK LT	P7-13	BRN/ORN	3
370	COLD START SW	P7-14	BLK	1156
271	QUICK START PWR	P7-15	BLK	18
172	RADAR DETECTOR	P9-1	ORN	31
325	IGN PWR	P9-2	YEL	1
263	MIRROR HEAT PWR	P9-3	WHT	54
264	AUX COMP REL PWR	P9-4	WHT	53
210	LOW WASH FLUID	P9-5	BLK	11
211	LOW WASH FLUID	P9-6	BLK	12
192	AUX STEP DASH LT	P9-8	YEL	15
174	DASH LEDS MAS	P9-9	ORN	46
267	COMPT LOCK SW PWR	P9-10	WHT	20
184	AUX BAT	P9-11	PUR	10
268	HORN SW (ELEC)	P9-12	WHT	21
225	LWR DASH 12V IGN	P9-13	GRN	31
164	GEN AUTO START	P9-14	GRN	71
226	HAZARD LT PWR	P9-15	GRN	32
236	A/T SYSTEM	P9-16	GRN	53
270	UPR DASH 12V IGN	P9-17	YEL	11
238	A/T SYSTEM	P9-18	GRN	52
165	PILOT FLUO LT	P9-19	ORN	30
260	SHIFT PNL 12V IGN	P9-20	ORN	35
139	DOOR LOCK	P9-21	BLK/YEL	1
144	DOOR LOCK	P9-22	BLK	0
179	ELEC SEAT LH	P9-23	RED	15
212	TUNER/CASS MEMORY	P9-24	BLK	24
216	CB RADIO PWR	P10-1	RED	5
217	MUSICAL HORN PWR	P10-2	BRN/ORN	4
218	BEDRM STEREO PWR	P10-3	BLU	10
274	TUNER/CASSETTE	P10-4	BLU/BLK	7
247	EQUALIZER PWR	P10-5	GRN	55
	IGN SW ACC	P10-6	BLK	20
166	DOOR LOCK PWR	P10-7	ORN	20
176	RECP 12V PWR	P10-9	ORN	18
141	DOOR LK SW BEDRM	P10-10	GRN	25
146	DOOR LK SW BEDRM	P10-11	GRN	14
220	LOW WASH FLUID	P10-14	WHT	5
221	LOW WASH FLUID	P10-15	WHT	7
271	QUICK START PWR	P10-16	BLK	18
272	LOW AIR BUZZ (+)	P10-17	ORN/BLK	19
	A/T ST SIG	P10-18	PUR	1115A
	PRK BRK SIG	P10-19	WHT/BLK	1515B
	LEVEL JACK MASTER	P10-20	BLU	21
	MIRROR CNTL PWR	P10-21	BLK/YEL	25

REF	DESCRIPTION	CONN	COLOR	NO
371	IGN SW ST	P10-22	BLK	15
397	ENG OIL TEMP "S"	P11-1	BLU/BLK	1410
394	ENG OIL PRESS "S"	P11-2	BLU/BLK	1417A
403	CRUISE ENB LGT	P11-3	YEL	1424
401	H IDLE/CRUISE ENB	P11-4	BLU	1504
387	CRUISE RESUME ON	P11-5	BLU/YEL	1508A
386	CRUISE SET ON	P11-6	YEL/RED	1508B
391	WATER TEMP "S"	P11-7	GRN	1416A
373	IGN SW IGN	P11-8	PNK	1102A
	A/T ST SIG	P11-10	PUR	1115A
365	ABS LGT	P11-11	GRN	1430
368	SPDOMETER S DDEC	P11-12	BLU/BLK	1419B
396	FUEL LEVEL "S"	P11-13	TAN	1403
251	CRUISE CONTROL	P11-15	WHT	1206A
	LWR PNL GAUGE LTS	P11-16	BLU	16
354	DO NOT SHIFT LGT	P11-17	WHT/BLK	1432
328	TRAN TEMP LGT	P11-18	GRN	1405
363	ENG BRK ENABLE	P11-19	PUR	1517D
	LOW AIR BUZZ (-)	P11-20	BRN	1431
385	TACH SENSE	P11-23	GRY	1406
398	TRANS TEMP "S"	P11-24	GRN	1405A
274	TUNER/CASSETTE	P12-1	BLU/BLK	7
212	TUNER/CASS MEMORY	P12-2	BLK	24
	RADIO GND	P12-3	WHT	14
247	EQUALIZER PWR	P12-4	GRN	55
375	IGN SW BAT	P12-6	BLK	1101G
373	IGN SW IGN	P12-7	PNK	1102A
371	IGN SW ST	P12-8	BLK	15
	IGN SW ACC	P12-9	BLK	20
389	CHECK ENG LT	P14-5	PUR/WHT	1426
	STOP ENG BUZZ	P14-6	PUR	1427
351	STOP ENG-OVERRIDE	P14-8	BRN/RED	1513A
228	DIR LT. RELAYS	P15-5	GRN/WHT	1332A
234	DIR LT RH	P15-6	GRN	1323D
235	DIR LT LH	P15-7	YEL	1313C
261	DRIVING LIGHTS	P15-8	GRN/BLK	1301J
265	SUSP DUMP	P15-9	BLU	1808A
275	TAG AXLE DUMP	P15-10	BLU/BLK	1808B
224	REAR PARKING LTS	P15-13	YEL	1322C
	HDLT ALERT LT	P15-14	WHT	1208U
	GND W/PRK LGTS	P15-11	WHT	1208T
291	ENG BRK ENB LGT	P15-12	RED	1425

REF	DESCRIPTION	CONN	COLOR	NO
165	PILOT FLUO LT	P16-1	ORN	30
167	CLEARANCE LGTS	P16-2	WHT	1203B
	MIRROR CNTL PWR	P16-3	BLK/YEL	25
376	FLUO LT PILOT	P16-4	BLU	33
	GND W/PRK LGTS	P16-5	WHT	1208T
	DRV UPR UP & DOWN	P16-6	RED	25
	PAS UPR UP & DOWN	P16-7	YEL	25
	DRV UPR LT & RT	P16-8	BRN	25
	PAS UPR LT & RT	P16-9	BLU	25
	DRV UPR COMMON	P16-10	GRN	025
	PAS UPR COMMON	P16-11	ORN	025
261	DRIVING LIGHTS	P16-13	GRN/BLK	1301J
187	SHIFT PNL GND	P16-14	WHT	14
	DRV LWR UP & DOWN	P16-15	ORN	25
	PAS LWR UP & DOWN	P16-16	GRN	25
169	DRIVING LIGHTS	P16-17	GRN	1308A
	DRV LWR LT & RT	P16-18	RED	025
170	CLEARANCE LGTS	P16-19	BLU	1310G
171	CLEARANCE LGTS	P16-20	GRN/BLK	1310B
	PAS LWR LT & RT	P16-21	YEL	025
	DRV LWR COMMON	P16-22	BRN	025
	PAS LWR COMMON	P16-23	BLU	025
262	SUSP DUMP LT	P17-1	PNK	1153B
320	ENG BRK HIGH	P17-2	RED	1517H
309	ENG BRK	P17-3	RED/WHT	1517J
402	LOW COOLANT LGT	P17-5	BLU	1420D
384	ENGINE VOLTS	P17-6	BLU	1434A
	PRK BRK SIG	P17-8	WHT/BLK	1515B
171	CLEARANCE LGTS	P17-12	GRN/BLK	1310B
167	CLEARANCE LGTS	P17-13	WHT	1203B
134	W/S WIPER	P17-15	BRN	2102K
333	LANDING LTS LH	P17-17	GRN	1329B
334	LANDING LTS RH	P17-18	GRN	1329A
383	ENG FIRE ALARM	P17-20	RED	1433A
367	FAN CONTROL	P17-22	ORN	1516
	A/C ON SIG	P17-23	GRN	1150B
170	CLEARANCE LGTS	P17-24	BLU	1310G
320	ENG BRK HIGH	P18-1	RED	1517H
365	ABS LGT	P18-2	GRN	1430
389	CHECK ENG LT	P18-4	PUR/WHT	1426
403	CRUISE ENB LGT	P18-5	YEL	1424
388	STOP ENG LT	P18-6	PUR	1427
387	CRUISE RESUME ON	P18-8	BLU/YEL	1508A
386	CRUISE SET ON	P18-10	YEL/RED	1508B
250	FAN OVERRIDE	P18-11	WHT	1206A
402	LOW COOLANT LGT	P18-12	BLU	1420D

REF	DESCRIPTION	CONN	COLOR	NO
401	H IDLE/CRUISE ENB	P18-13	BLU	1504
260	SHIFT PNL 12V IGN	P18-14	ORN	35
291	ENG BRK ENB LGT	P18-15	RED	1425
354	DO NOT SHIFT LGT	P18-16	WHT/BLK	1432
309	ENG BRK	P18-17	RED/WHT	1517J
363	ENG BRK ENABLE	P18-18	PUR	1517D
351	STOP ENG-OVERRIDE	P18-19	BRN/RED	1513A
	A/C HEAT CTR	P18-22	GRN/WHT	2
	A/C HEAT FRT	P18-23	WHT/BLK	1
	A/C HEAT REAR	P18-24	YEL/BLK	3
195	CLEARANCE LGTS	P19-2	BRN	1315B
269	HDLT PWR	P19-3	GRN/BLK	1301G
169	DRIVING LIGHTS	P19-6	GRN	1308A
375	IGN SW BAT	P19-7	BLK	1101G
395	LOW FUEL LT "S"	P19-9	TAN	1402
392	PYROMETER YEL	P19-11	YEL	1418
393	PYROMETER RED	P19-12	RED	1418A
390	WTR IN FUEL CNTM	P19-13	TAN	1455
370	COLD START SW	P19-14	BLK	1156
	WTR IN FILTER	P19-16	BLK	1456
	STOP ENG BUZZ	P26-1	PUR	1427
	LOW AIR BUZZ (-)	P26-4	BRN	1431
272	LOW AIR BUZZ (+)	P26-5	ORN/BLK	19
	WTR IN FILTER	P26-6	BLK	1456
359	HORN SW COM	P26-7	YEL	9
358	HORN SW AIR	P26-8	RED	7
357	LEVEL JACK WRN LT	P26-10	YEL/BLK	10
230	HEADLIGHTS	P26-14	WHT/BLK	20
	LEVEL JACK MASTER	P26-20	BLU	21
	TOP DOOR LOCK	P26-22	GRN	25
361	DOOR LK LT	P26-24	BRN/ORN	3
216	CB RADIO PWR	P27-1	RED	5
217	MUSICAL HORN PWR	P27-3	BRN/ORN	4
218	BEDRM STEREO PWR	P27-6	BLU	10
	HDLT ALERT LT	P27-8	WHT	1208U
	OH PNL EL PWR	P27-9	BLK	16
348	PRK LGTS	P27-10	BRN	1315B
139	DOOR LOCK	P27-11	BLK/YEL	1
144	DOOR LOCK	P27-12	BLK	0
220	LOW WASH FLUID	P27-13	WHT	5
221	LOW WASH FLUID	P27-14	WHT	7
141	DOOR LK SW BEDRM	P27-16	GRN	25
146	DOOR LK SW BEDRM	P27-17	GRN	14

REF	DESCRIPTION	CONN	COLOR	NO
179	ELEC SEAT LH	P28-4	RED	15
329	aisle LTS	P28-19	BRN	12
330	aisle LTS	P28-20	BRN	11
331	AUX AIR COM	P28-22	BLK	27
184	AUX BAT	P29-1	PUR	10
332	BACK-UP ALARM	P29-2	BLU	39
355	AQUA HOT	P29-3	GRN/WHT	5
346	AQUA HOT	P29-4	BLK	6
405	AQUA HOT	P29-5	YEL	7
347	AQUA HOT	P29-6	YEL/BLK	8
253	MIRROR HEAT	P29-10	BLK	7
335	TRIPMETER	P29-11	RED	19
	OH PNL GAUGE LTS	P29-12	BLU	16
	OH PNL EL PWR	P29-13	BLK	16
338	STEP SYSTEM	P29-14	ORN/BLK	1
339	STEP SYSTEM	P29-15	ORN/BLK	2
340	aisle LTS	P29-17	ORN/BLK	11
341	REAR PARKING LTS	P29-18	GRN/WHT	20
407	GEN AUTO START	P29-20	YEL	79
342	RADAR DETECTOR	P29-21	BLK	12
343	GEN AUX BATT	P29-22	BLK	21
344	W/S WIPER DELAY	P29-23	GRN	7
345	W/S WIPER DELAY	P29-24	RED/BLK	8
380	INSTRM, ALT/CHG	P30-2	BLK	3
381	INSTRM, ALT/CHG	P30-3	YEL	3
382	COACH VOLTS	P30-5	YEL	15
350	A/T SYSTEM	P30-7	RED	77
376	FLUO LT PILOT	P30-13	BLU	33
	A/C HEAT CTR	P30-15	GRN/WHT	2
	A/C HEAT FRT	P30-16	WHT/BLK	1
	A/C HEAT REAR	P30-17	YEL/BLK	3
399	COMPT LOCK	P30-18	GRN	18
400	COMPT UNLOCK	P30-19	ORN	18

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REF	DESCRIPTION	FROM	TO	COLOR	NO
1	DOOR LOCK PWR	P7-1	S2-1	ORG	20
2	DOOR LOCK LT PWR	S2-1	DS2-RED		
3	RECEPT 12V PWR	P7-3	S1-1	ORG	18
4	DOOR LOCK SW	P7-4	S2-3	GRN	64
5	DOOR LOCK SW	P7-5	S2-2	GRN	6
6	AC ON SIG	P7-10	AC CONTROL	GRN	1150B
7	RECEPT 12V GND	P7-12	S1-2	WHT	14
8	DOOR LOCK LT	P7-13	DS2-BLK	BRN/ORG	3
9	COLD START	P7-14	S3-2	WHT	17
10	COLD START PWR	P7-15	S3-1	BLK	18
11	EL DIM	EL INV OUT-RED	DS1-BLK	RED	
12	EL DIM	EL INV OUT-WHT	DS1-WHT	WHT	

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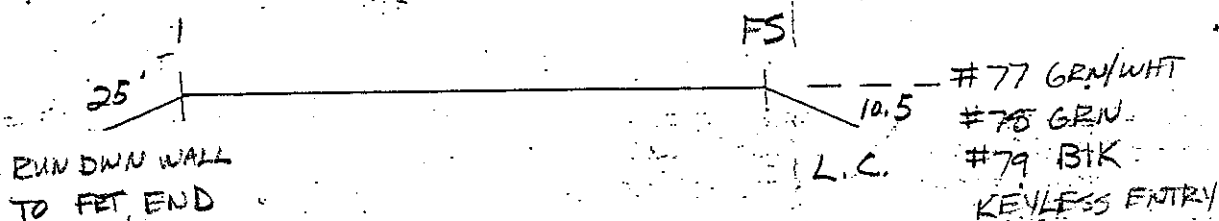
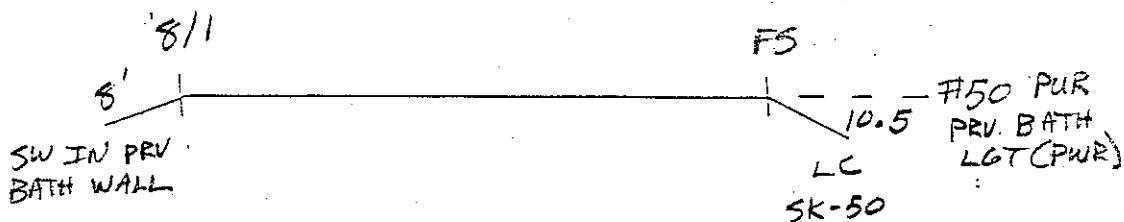
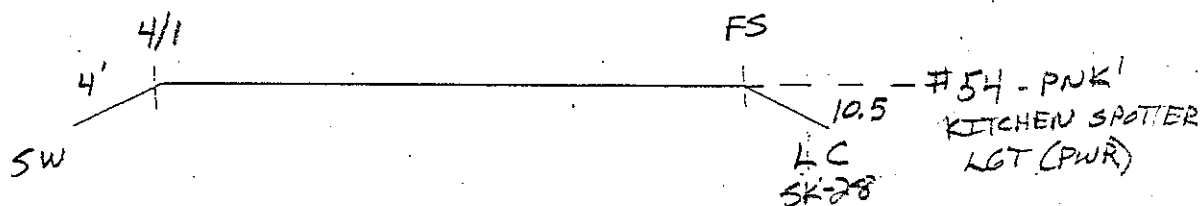
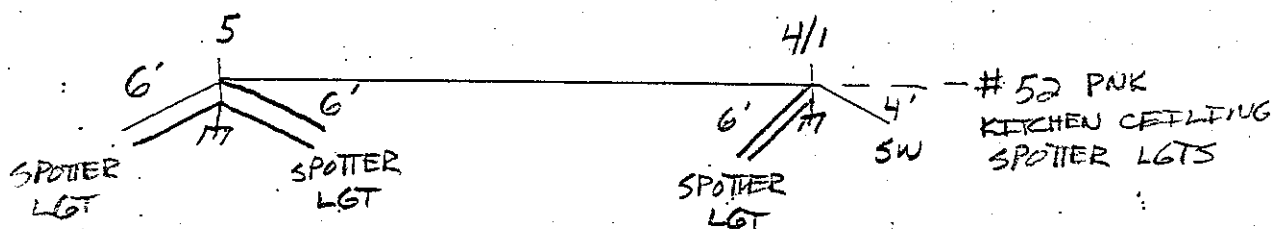
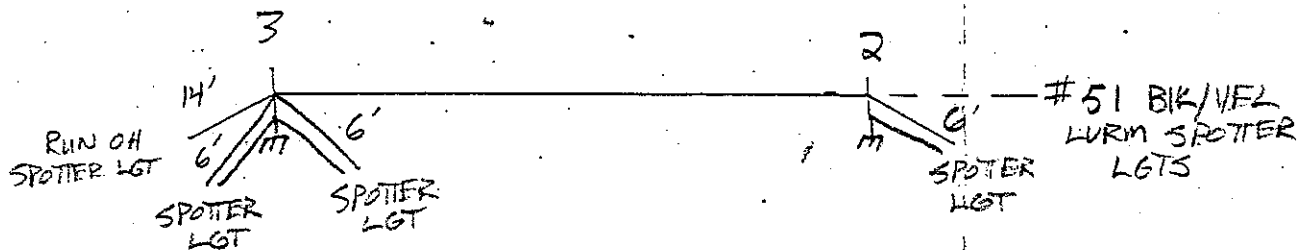
WIRE LIST PNL ASSY RH UPPER 98 WLXI

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REF.	DESCRIPTION	FROM	TO	COLOR	NO
1	SPEEDO INTERFC	M1-BLU	INTERFC-BLU	WHT	
2	SPEEDO INTERFC	M1-GRY	INTERFC-GRY	WHT	
3	SUSP DUMP LT	P1-1	DS18-2	PNK	1153B
4	RADAR DETECTOR	P1-2	S14-1	ORG	31
5	SUSP DUMP	P1-3	S6-1	YEL	1
	TAG AXLE DUMP	S6-1	S10-1		
	FAN OVERRIDE IND	S10-1	R3-1		
6	FAN OVERRIDE IND	R3-2	DS3-RED		
	TRANS OIL TEMP LT	S10-1	DS23-RED		
	STEP IND LT	DS23-RED	DS15-RED		
7	MIRROR HEAT SW	P1-5	S2-1	WHT	54
8	AUX COMPRESSOR	P1-6	S11-1	WHT	53
9	LOW WASH FLUID IND	P1-9	R5-1	BLK	11
10	LOW WASH FLUID IND	R5-2	DS27-RED		
11	LOW WASH FLUID	P1-11	DS27-BLK	BLK	12
12	SUSP DUMP	P1-12	S6-2	BLU	1808A
13	CHASSIS GND	P1-13	DS26-1	WHT	14
14	CHASSIS GND	DS26-1	S5-2		
15	CHASSIS GND	S5-2	S5-3		
16	CHASSIS GND	S5-3	S18-31		
17	CHASSIS GND	S18-31	D1-A		
18	CHASSIS GND	D1-A	S21-1		
19	CHASSIS GND	S21-1	DS8-BLK		
20	CHASSIS GND	DS8-BLK	M2-GND		
21	CHASSIS GND	M2-GND	DS21-BLK1		
22	CHASSIS GND	DS21-BLK1	DS20-2		
23	CHASSIS GND	DS20-2	INTRFC-BLK		
24	CHASSIS GND	INTRFC-BLK	DS16-BLK		
25	CHASSIS GND	DS16-BLK	DS17-1		
26	CHASSIS GND	DS17-1	DS18-1		
27	CHASSIS GND	P1-14	S19-2	WHT	14
28	CHASSIS GND	S19-2	DS25-1		
	CHASSIS GND	DS25-1	S13-2		
	CHASSIS GND	S13-2	DS5-BLK		
	CHASSIS GND	DS5-BLK	DS1-BLK		
	CHASSIS GND	DS1-BLK	S9-1		
	CHASSIS GND	S9-1	M1-GND		
	CHASSIS GND	M1-GND	M3-GND		
	CHASSIS GND	M3-GND	DS14-BLK1		
	CHASSIS GND	DS14-BLK1	DS13-BLK1		
	CHASSIS GND	DS13-BLK1	DS10-BLK		
	CHASSIS GND	DS10-BLK	S20-GND		
	CHASSIS GND	S20-GND	S24-GND		
37	AISLE LTS	P1-17	S25-1	BRN	12
38	AISLE LTS	P1-18	S25-3	BRN	11
41	STEP SYSTEM LT	P1-20	DS23-BLK	YEL	15
42	AUX BATT LGT	P1-21	R4-1	ORG	46
43	AUX BATT LGT	R4-2	DS4-RED		
44	LANDING LTS RH	R4-1	DS12-RED		

REF-	DESCRIPTION	FROM	TO	COLOR	NO
45	LANDING LTS LH	DS12-RED	DS9-RED		
46	GEN AUX BATT LGT	DS9-RED	DS7-RED		
47	COMPT LOCK PWR	P1-22	S1-1	WHT	20
48	FAN OVERRIDE	P1-24	S4-2	ORG	1516
49	FAN OVERRIDE IND	S4-2	DS3-BLK		
50	AUX COMPRESSOR	P2-1	S11-2	BLK	27
51	AUX BATTERY	P2-2	S5-1	PUR	10
52	AUX BATTERY IND	S5-1	DS4-BLK		
53	BACKUP ALARM	P2-3	S17-1	BLU	39
54	REAR PARKING	P2-4	S7-1	YEL	1322C
55	BACKUP ALARM	S7-1	S17-2		
56	HYDRONIC HEAT	P2-5	S8-1	GRN/WHT	5
57	HYDRONIC HEAT	P2-6	S8-2	BLK	6
58	HYDRONIC HEAT IND	P2-7	R2-1	YEL	7
59	HYDRONIC HEAT IND	R2-2	DS6-RED		
60	HYDRONIC HEAT IND	P2-8	DS6-BLK	YEL/BLK	8
61	MIRROR HEAT	P2-9	S2-2	BLK	7
71	MIRROR HEAT IND	S2-2	R1-1		
62	MIRROR HEAT IND	R1-2	DS1-RED		
63	HORN SEL ELECT	P2-10	S16-2	WHT	21
64	LEVEL WRN LT	P2-11	DS19-2	YEL/BLK	10
65	LANDING LTS LH	P2-12	S13-1	GRN	1329B
68	LANDING LTS LH IND	S13-1	DS9-BLK		
69	LANDING LTS RH	P2-13	S19-1	GRN	1329A
70	LANDING LTS RH IND	S19-1	DS12-BLK		
72	TRIPMETER	P2-15	INTRFC-PUR	RED	19
73	OH PNL GAUGE LTS	P2-16	M2-LT+	BLU	16
74	GAUGE LTS	M2-LT+	M1-LT+		
75	GAUGE LTS	M1-LT+	DS21-BLK2		
76	GAUGE LTS	DS21-BLK2	DS20-1		
77	GAUGE LTS	DS20-1	DS14-BLK2		
78	GAUGE LTS	DS14-BLK2	DS13-BLK2		
79	GAUGE LTS	DS13-BLK2	S24-LGT		
82	EL INV PWR	S20-LGT	P3-1	YEL	78
83	STEP SYSTEM	P2-18	S21-3	ORG/BLK	1
84	STEP SYSTEM	P2-19	S21-2	ORG/BLK	2
85	TAG AXLE DUMP	P2-20	S10-2	BLU/BLK	1808B
86	TAG AXLE DUMP IND	S10-2	DS8-RED		
87	HORN SEL AIR	P2-22	S16-3	RED	7
88	aisle LTS	P2-23	S25-2	ORG/BLK	11
89	REAR PARKING	P2-24	S7-2	GRN/WHT	20
90	REAR PARKING IND	S7-2	DS5-RED		
91	LEVEL WRN LT IGN	P3-5	DS19-1	GRN	31
92	TRANS TEMP IGN	DS19-1	M3-IGN		
93	SPEEDOMETER IGN	M3-IGN	M1-IGN		
94	TACHOMETER IGN	M1-IGN	M2-IGN		
	DOOR LOCK OVRD SW	M2-IGN-	S12-1		
96	FAN OVERRIDE	P3-2	S4-1	WHT	1206A
97	W/S WIPER DELAY	P3-6	S18-53M	BRN	2102K

REF	DESCRIPTION	FROM	TO	COLOR	NO
98	W/S WIPER DELAY	S18-53M	D1-C		
	DOOR LOCK OVRD SW	P3-8	S12-2	GRN	25
99	RADAR DETECTOR	P3-9	S14-2	BLK	12
100	HORN SEL COM	P3-11	S16-1	YEL	9
101	W/S WIPER DELAY	P3-12	S18-53S	GRN	7
102	W/S WIPER DELAY	P3-13	S18-15	RED/BLK	8
103	W/S WIPER DELAY	S18-15	S18-30/31		
104	TRANS OIL TEMP LT	P3-17	DS15-BLK	GRN	1405
105	TRANS TEMP "S"	P3-18	M3-SEND	GRN	1405A
106	GEN AUX BATT	P3-21	S9-2	BLK	21
107	GEN AUX BATT LGT	S9-2	DS7-BLK		
108	GEN AUTO START	P3-22	S15-2	YEL	79
109	GEN AUTO START IND	S15-2	DS10-RED		
110	GEN AUTO START IGN	P3-23	S15-1	GRN	71
111	HDLT HI BEAM IND	P3-24	DS16-RED	GRN/BLK	1301J
112	HAZARD LT PWR	P4-1	S22-2	GRN	32
113	HAZARD LTS	P4-2	S22-1	GRN/WHT	1332A
114	HDLTS	P4-3	S23-3	WHT/BLK	20
115	PARKING LT PWR	P4-4	S23-1	GRN/BLK	1301G
	HDLT PWR	S23-1	S23-4		
116	PARKING LTS	P4-21	S23-5	BRN	1315B
117	GUAGE LGT PWR	S23-5	S24-BAT		
119	EL DIM PROTECTION	S24-BAT	F1-1		
120	EL DIM PWR	F1-2	S20-BAT		
122	WTR IN FUEL CNTM	P4-7	DS17-2	TAN	1455
123	PYROMETER BLU	P4-8	M4-BLU	YEL	1418
124	PYROMETER RED	P4-9	M4-RED	RED	1418A
125	SPDOMETER S DDEC	P4-10	M1-SEND	BLU/BLK	1419B
130	TACHOMETER SENSE	P4-12	M2-SEND	GRY	1406
131	DIR LT RH	P4-14	DS26-2	GRN	1323D
132	DIR LT LH	P4-15	DS25-2	YEL	1313C
133	COMPT. UNLOCK	P4-20	S1-3	ORG	18
134	COMPT. LOCK	P4-19	S1-2	GRN	18
135	EL DIM	EL INV OUT-RED	DS24-BLK	RED	
136	EL DIM	DS24-BLK	DS11-BLK		
137	EL DIM	DS11-BLK	DS22-BLK		
138	EL DIM	EL INV OUT-WHT	DS24-WHT	WHT	
139	EL DIM	DS24-WHT	DS11-WHT		
140	EL DIM	DS11-WHT	DS22-WHT		



3	5	120799	Blue Bird Kinder Lodge	120799
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99	100			

20' 6/2
 RUN TO MICRO SW THEN TO RLY
 FS
 10.5 LC SK-33
 #25 RED APPLIANCE GARAGE RLY (PWR)

8' 8/1
 SN IN PRV BATH WALL
 7/1
 6' LGT
 6' LGT
 #51 PUR

20' 9
 RUN ON DWN WALL TO HTR UNDER VANITY
 8/1
 2' LGT
 RUN DWN WALL TO HTR IN PRV BATH
 6/1
 20' LGT
 RUN DWN WALL THEN FLOOR HYD HT.
 #4 BLU BATH HYD HEAT
 NOTE: TAKES PLACE OF STANDARD RUN PAGE 1

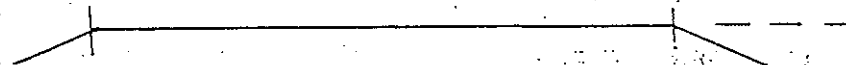
23' 12/1
 CNTRL PNL
 10
 14' LGT
 RUN ON SW FLOOR BDRM WALL
 #4 - BLU/BIK
 #4 - BIK
 3-WAY FLOOR LGT SW

NOTE: TAKES PLACE OF STANDARD RUN PAGE 4

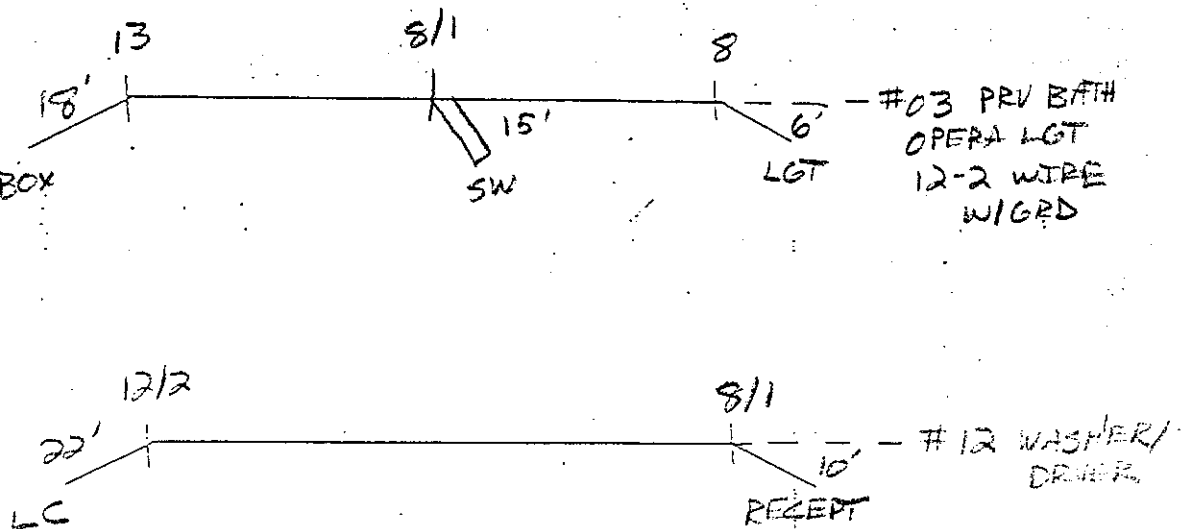
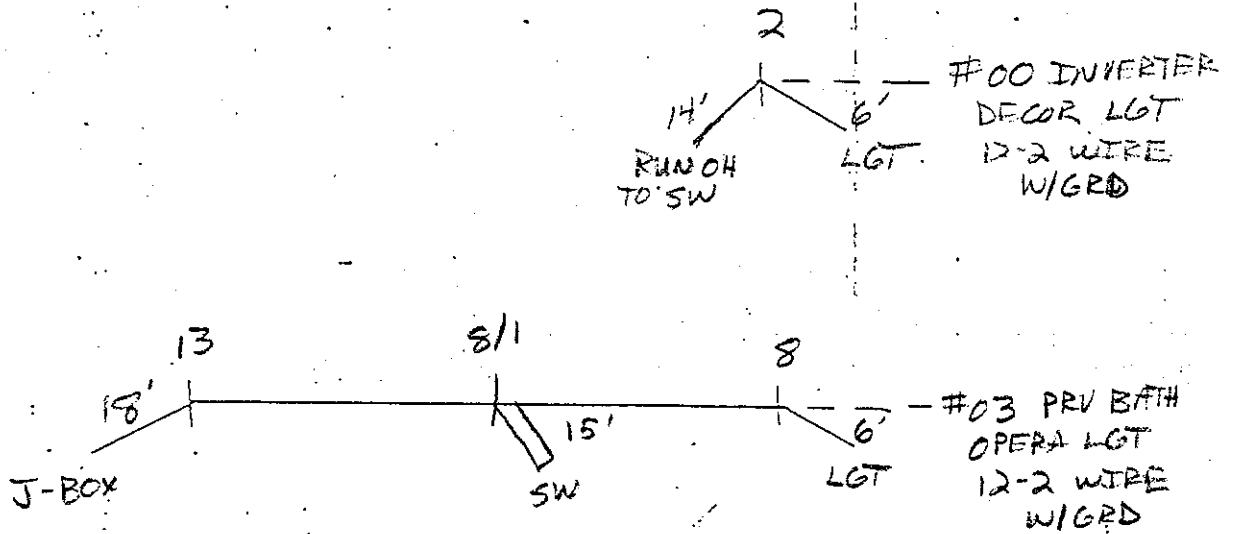
8' 10
 REAR AC
 6/1
 20' LGT
 RUN DWN WALL THEN FLOOR HYD HT.
 #1 PUR HYDRONIC HEATER BDRM

NOTE: TAKES PLACE OF STANDARD RUN PAGE 10

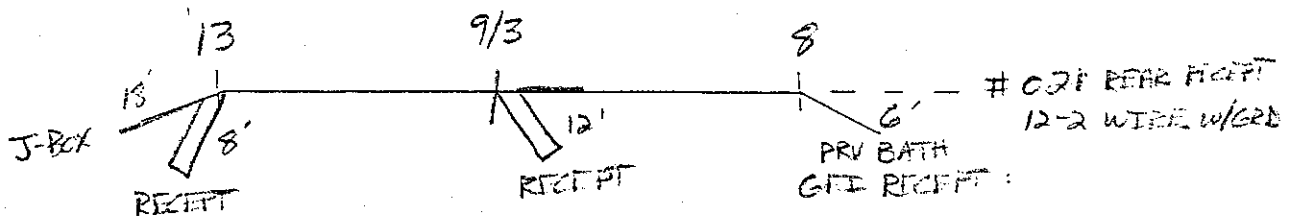
Blue Bird Wonder Lodge	124799
Unit 1001, 1002, 1003, 1004	
Unit 1005, 1006, 1007, 1008	
Unit 1009, 1010, 1011, 1012	
Unit 1013, 1014, 1015, 1016	
Unit 1017, 1018, 1019, 1020	
Unit 1021, 1022, 1023, 1024	
Unit 1025, 1026, 1027, 1028	
Unit 1029, 1030, 1031, 1032	
Unit 1033, 1034, 1035, 1036	
Unit 1037, 1038, 1039, 1040	
Unit 1041, 1042, 1043, 1044	
Unit 1045, 1046, 1047, 1048	
Unit 1049, 1050, 1051, 1052	
Unit 1053, 1054, 1055, 1056	
Unit 1057, 1058, 1059, 1060	
Unit 1061, 1062, 1063, 1064	
Unit 1065, 1066, 1067, 1068	
Unit 1069, 1070, 1071, 1072	
Unit 1073, 1074, 1075, 1076	
Unit 1077, 1078, 1079, 1080	
Unit 1081, 1082, 1083, 1084	
Unit 1085, 1086, 1087, 1088	
Unit 1089, 1090, 1091, 1092	
Unit 1093, 1094, 1095, 1096	
Unit 1097, 1098, 1099, 1100	



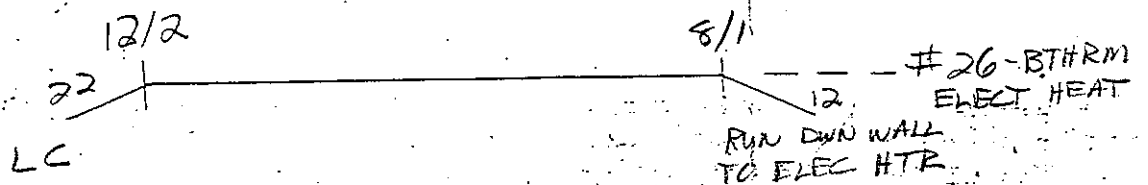
Blue Bird Vander Lodge
1001 Indian Avenue, N.W.
JAMES WESTING
1200 E 4th
B 120799



NOTE: TAKES PLACE OF
STANDARD RUN PAGE 2
RH HARNESS

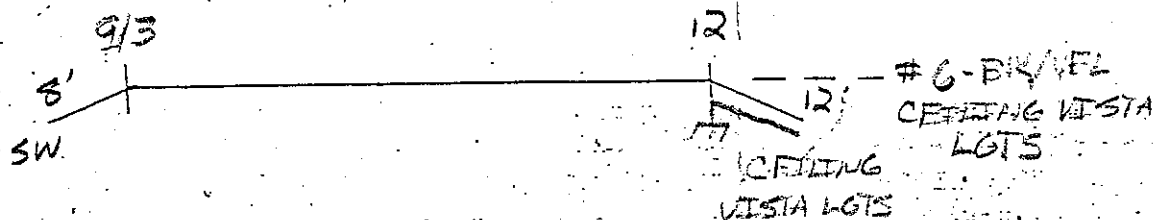


NOTE: TAKES PLACE OF
STANDARD RUN PAGE 2

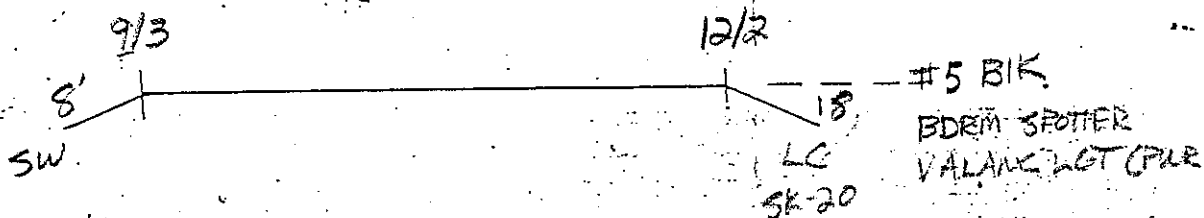
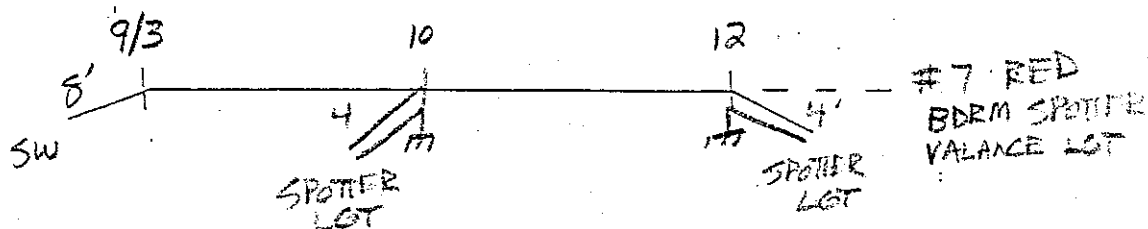
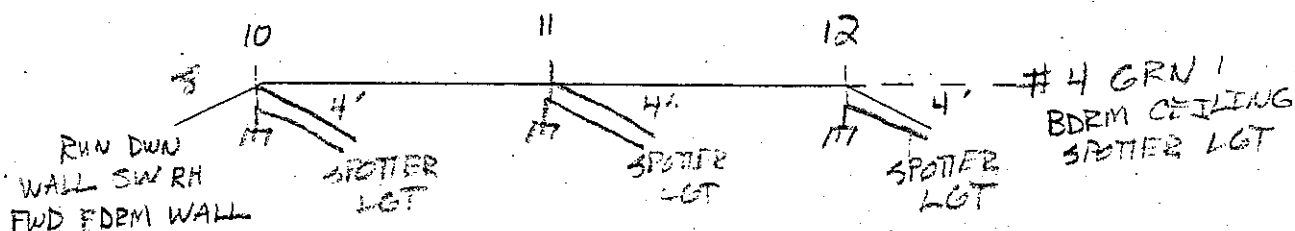
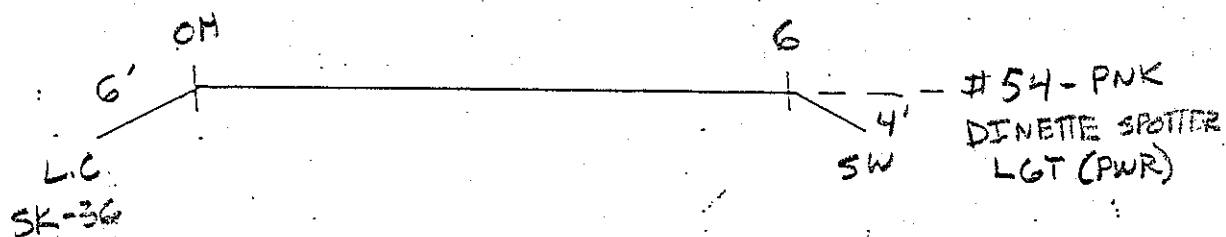


NOTE: TAKES PLACE OF
STANDARD RUN PAGE 2

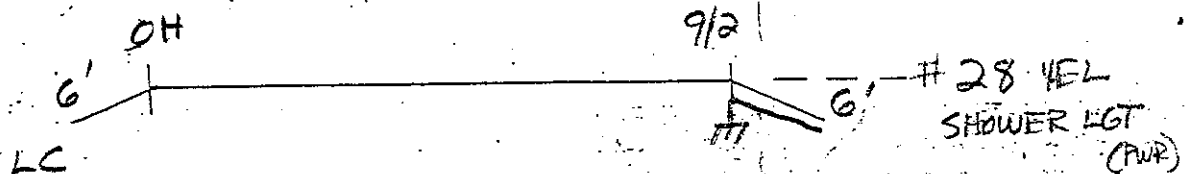
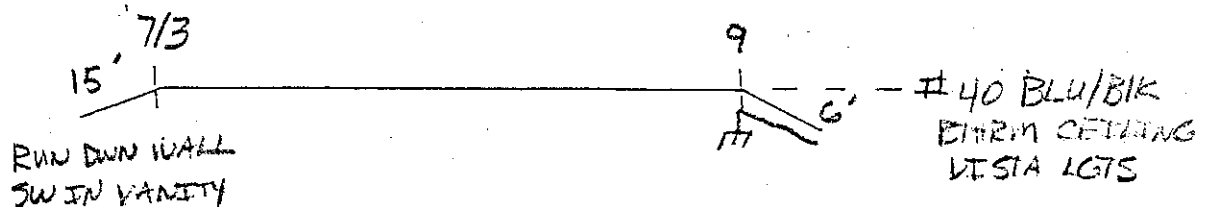
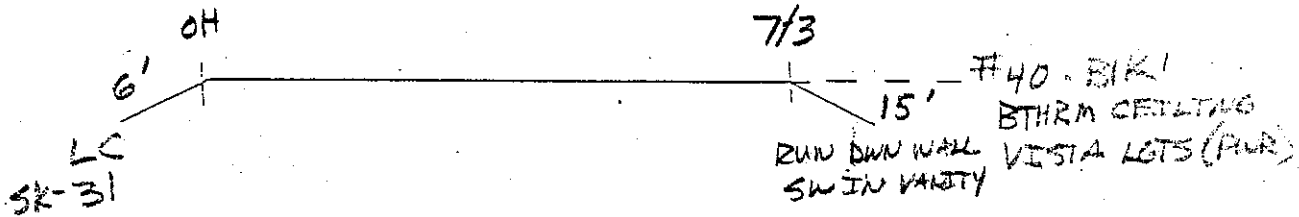
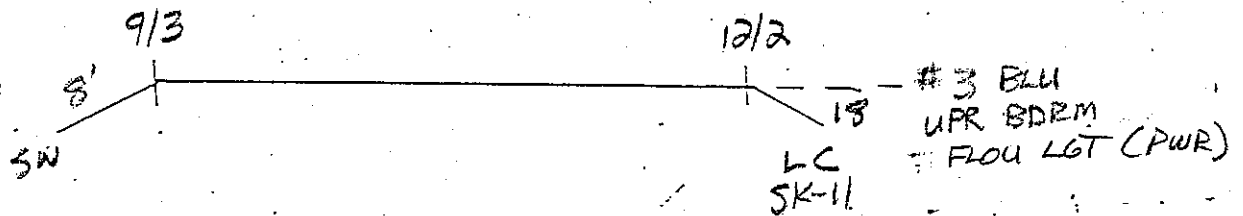
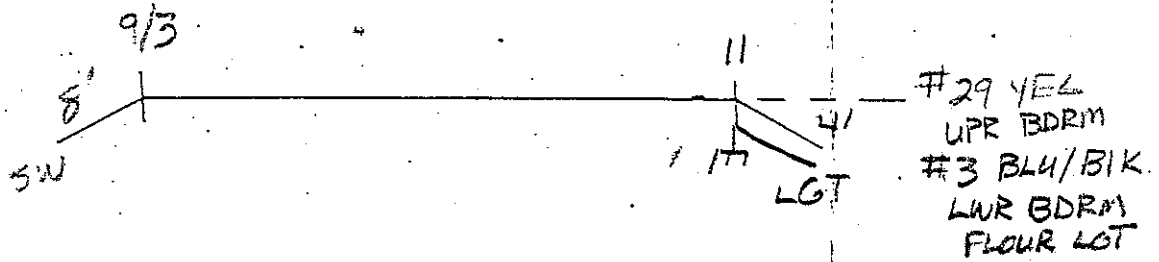
120799	Blue Bird Lodge
--------	-----------------



Blue Bird	Kander Lodge	100
1001 North	Green Way	
HARRIS WILKINS		
	DOV DE RSH	
b1	B	120799
24		

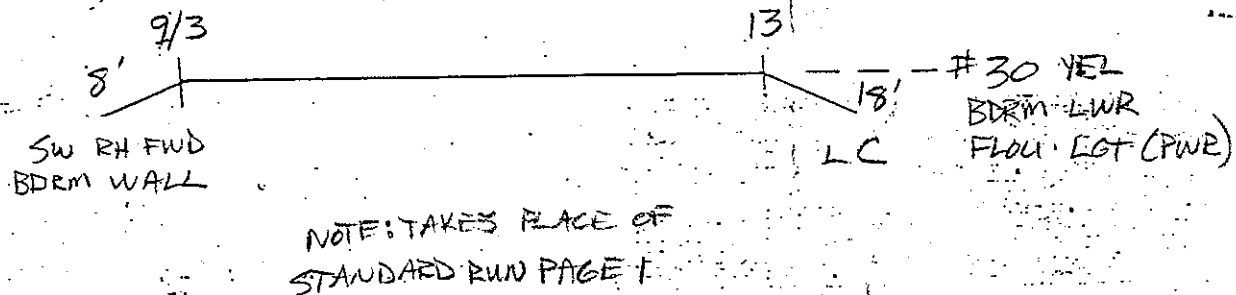
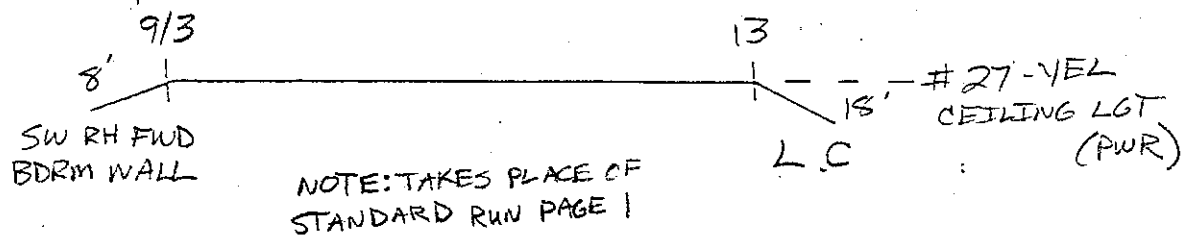
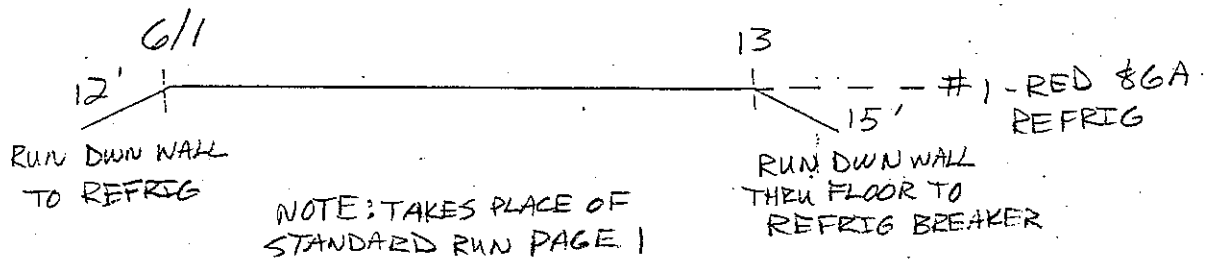
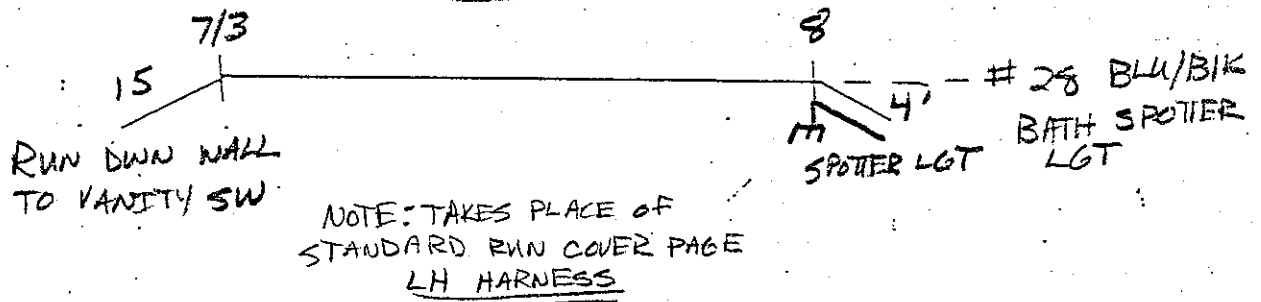
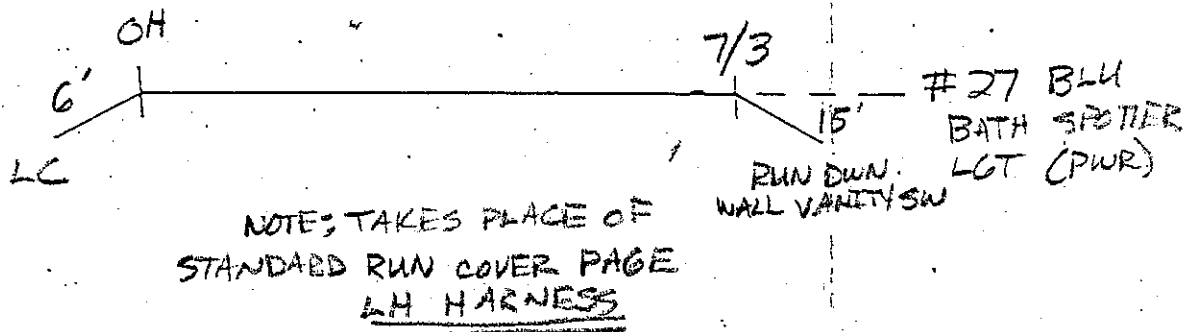


Blue Bird Lander Lodge	
1011 North Green Ave.	
MAR 25 AM 1967	
12V DC BIT	
B	120799

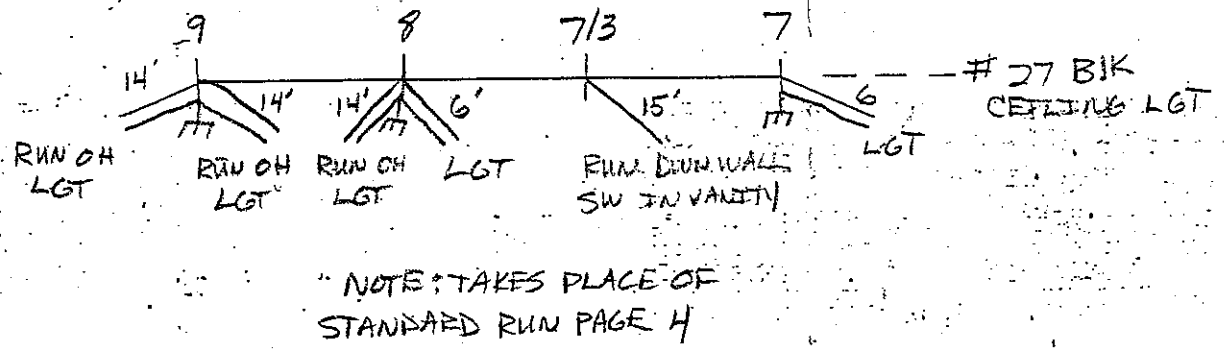


NOTE: TAKES PLACE OF
STANDARD RUN PAGE 5
LH HARNESS

Blue Bird Vander Lodge	120799
12V DC 1A	



Blue Bird	Order Lodge
120 799	



9
8'

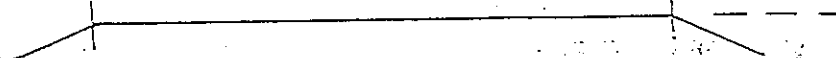
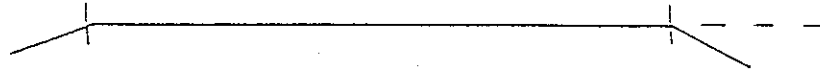
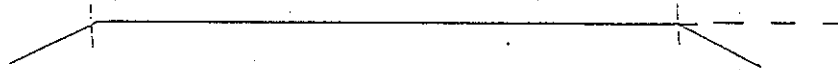
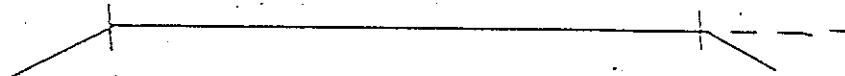
7/3

51

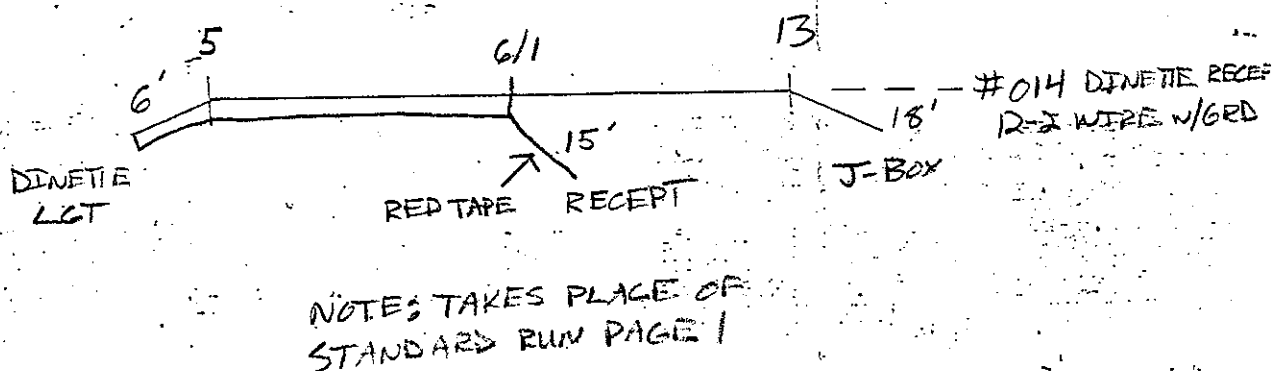
#23 - BRN
#23 - CRN/BK

RAN DOWN VAL FANTASTEC VENT
SW IN VANEITY FAN BATHRM

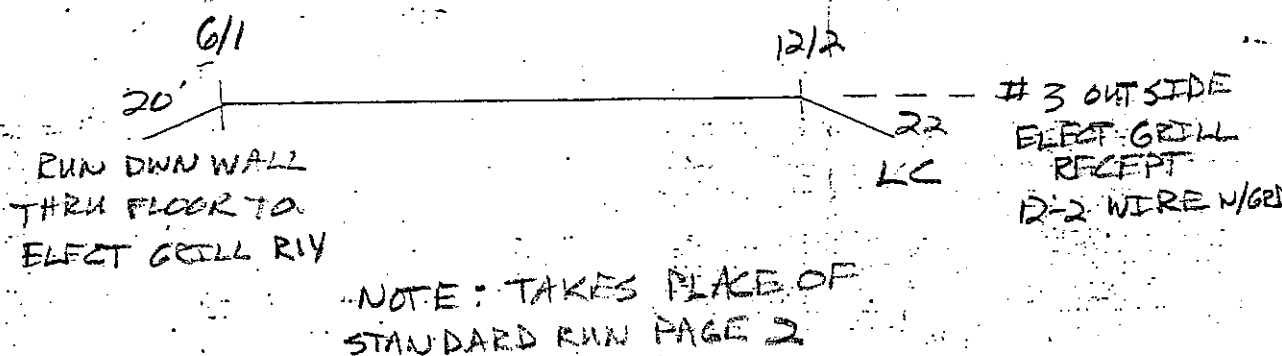
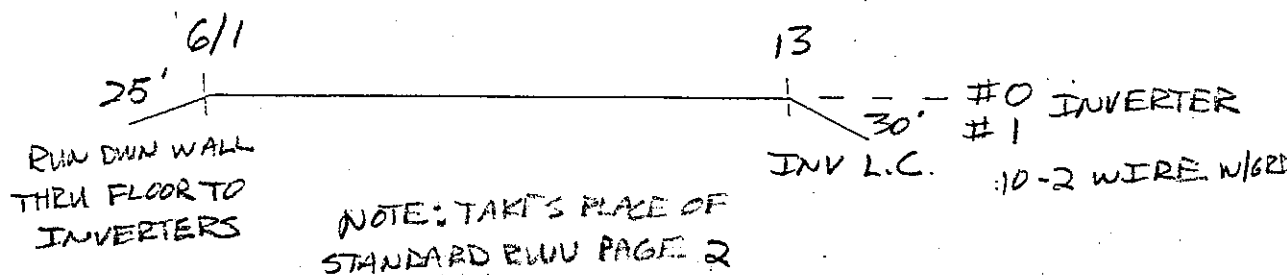
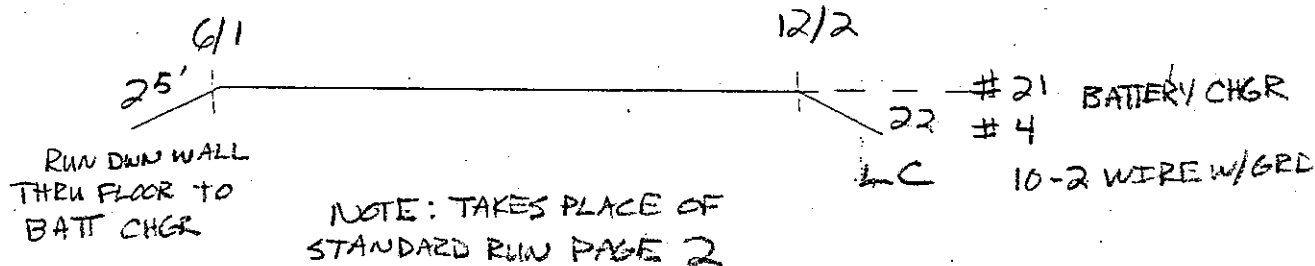
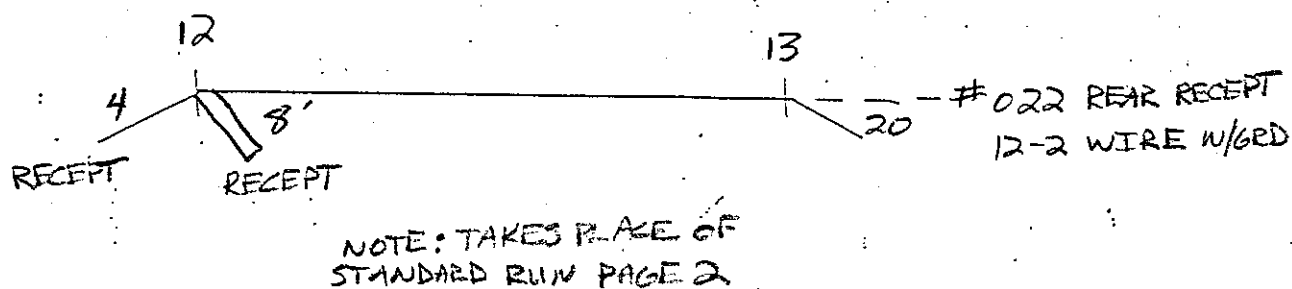
NOTE: TAKES PLACE OF
STANDARD RUN PAGE 6



	Blue Bird Ranger Lodge	I feel health.
VII	B	120799



100	Blue Bird Lodge	100
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120V AC PH		
120799		



Blue Bird	Hooder Lodge
Ball Hall	Green Hill
MASTERS WELLS	
	120799
DA	TOT
01	0
02	120799

2000 LXi WANDERLODGE C O M P O N E N T S	BREAKER/ FUSE	COMPONENT LOCATIONS	R E L A Y S AND LOCATIONS
AIR CONDITIONER, BLOWERS, LEFT			
AIR CONDITIONER, BLOWERS, RIGHT			
AIR CONDITIONER, COMPRESSOR			
AIR CONDITIONER, CONDENSOR RELAY			
AIR CONDITIONING, ENABLE RELAYS			
ALARM, FIRE, ENGINE COMPARTMENT			
ALARM, FIRE, LOAD CENTER			
ALARM, FIRE, REFRIGERATOR			
AMPLIFIER, STEREO			
AMPLIFIER, TV			
ANTENNA, UP / DOWN			
AUX. AIR COMPRESSOR			
AUX. BATTERY ENABLE			
A/T SWITCH POWER			

BURGLAR ALARM				
CELLUALR PHONE POWER				
CELLULAR PHONE, MEMEORY				
CHIME, DOOR				
CLOCK, DASH				
COMPARTMENT DOOR LOCK SOLENOIDS				
COMPARTMENT LOCK SWITCH				
COMPASS				
DEFROSTER				
DETECTOR, CO				
DETECTOR, LPG				
DINETTE TABLE MOTOR				
DOOR LOCK, DASH				
DOOR LOCK , BEDROOM				
DOOR LOCK LIGHT				
ELECTRONIC MASTER SWITCH				
ELECTRONIC FILTER				

ENGINE PREHEAT				
FILTER, 12 V				
FRONT HEAT AUX. PUMP				
GENERATOR ACTUATOR				
GRILL, OUTSIDE ELECTRIC, RELAY				
HEADLIGHT ALERT				
HEAT MODULATOR				
HEATER, FRONT, PASSENGER				
HEATER, FRONT, DRIVERS				
HEAT, ELECTRIC RELAY				
HEAT, ELECTRIC, BATHROOM, RELAY				
HORN, ELECTRIC				
IGNITION REAY, LOWER FRONT				
IGNITION RELAY, OVERHEAD				
KEYLESS ENTRY MODULE				
LEVELING JACK MASTER				
LEVELING JACK WARNING				

HARNESS CODE	PART-NO	-----DESCRIPTION-----	
HB1	0012328	HARNESS, WRG, ELEC PANEL, O/S ACS, FRONT W4RE	(B)
HB1	0002287	HARNESS, WRG, ELEC PNL, O/S ACS, FRT, M11 B4/Q4	(B)
HB1	0002295	HARNESS, WRG, ELEC PNL, O/S ACS, FRT, DDEC Q4RE	(B)
HB2	1954148	HARNESS, WRG, BODY, HB2 B4RE/Q4RE/W4RE	
HB3	0005744	HARNESS, WRG, REAR CAP, HB3 Q4RE	(B)
HB3	0010421	HARNESS, WRG, REAR CAP, HB3 B4RE/W4RE	(B)
HB4	0010462	HARNESS, WRG, REAR CAP, LOWER, HB4 W4RE	(B)
HB4	0010413	HARNESS, WRG, REAR CAP, LOWER, HB4 B4RE	(B)
HB5	0010488	HARNESS, WRG, LIGHTS, LH, RR, HB5 B4RE	(B)
HB5	0010504	HARNESS, WRG, LIGHTS, LH RR, HB5 W4RE	(B)
HB6	0010512	HARNESS, WRG, LIGHTS, RH RR, HB6 W4RE	(B)
HB6	0010496	HARNESS, WRG, LIGHTS, RH, RR, HB6 B4RE	(B)
HB7	0002311	HARNESS, WRG, FRONT CAP, HB7 B4RE/Q4RE	(B)
HB7	1997998	HARNESS, WRG, FRONT CAP, HB7 W4RE	(B)
HB8	1958297	WIRE ASSY, SI DIR, LT FRT B4/Q4/W4	
HB9	1958305	WIRE ASSY, SI DIR, LT RR B4/Q4/W4	
HB10	1958313	WIRE ASSY, SI DIR, RT FRT B4/Q4/W4	
HB11	1958321	WIRE ASSY, SI DIR, RT RR B4/Q4/W4	
HB12	1958255	WIRE ASSY, LANDING, LGTS, LT FRT B4/W4	
HB13	1958263	WIRE ASSY, LANDING, LGTS, LT RR B4/W4	
HB14	1958271	WIRE ASSY, LANDING, LGTS, RT FRT B4/W4	
HB15	1958289	WIRE ASSY, LANDING, LGTS RT RR B4/W4	
HB17	1985167	HARNESS, WRG, STEERING COLUMN, HB17 W4RE	
HB18	1446525	HARNESS, WRG, ENGINE CMPT, LGT & HEAT SEN WLWB	
HB19	1996735	HARNESS, WRG, LOCKS & LIGHTS, L/CMPT W4RE	
HB20	1969955	HARNESS, WRG, LIGHTS, L/CMPT B4/Q4	(A)
HB21	0015933	HARNESS, WRG, LGTS, L/CMPT, E/PNL, HB21 B4/Q4	(B)
HB22	0016063	HARNESS, WRG, ELEC SERVICE DOOR, E/PNL, HB22 Q4	(B)
HB23	0016071	HARNESS, WRG, ELEC SERVICE DR, FRT CAP, HB23 Q4	(B)
HB24	0000216	HARNESS, WRG, KEYED SW, ELEC SVC DR, HB24 Q4	(B)
B25	0015982	HARNESS, WRG, KNEELING, CONTROL, HB25 Q4RE	(D)

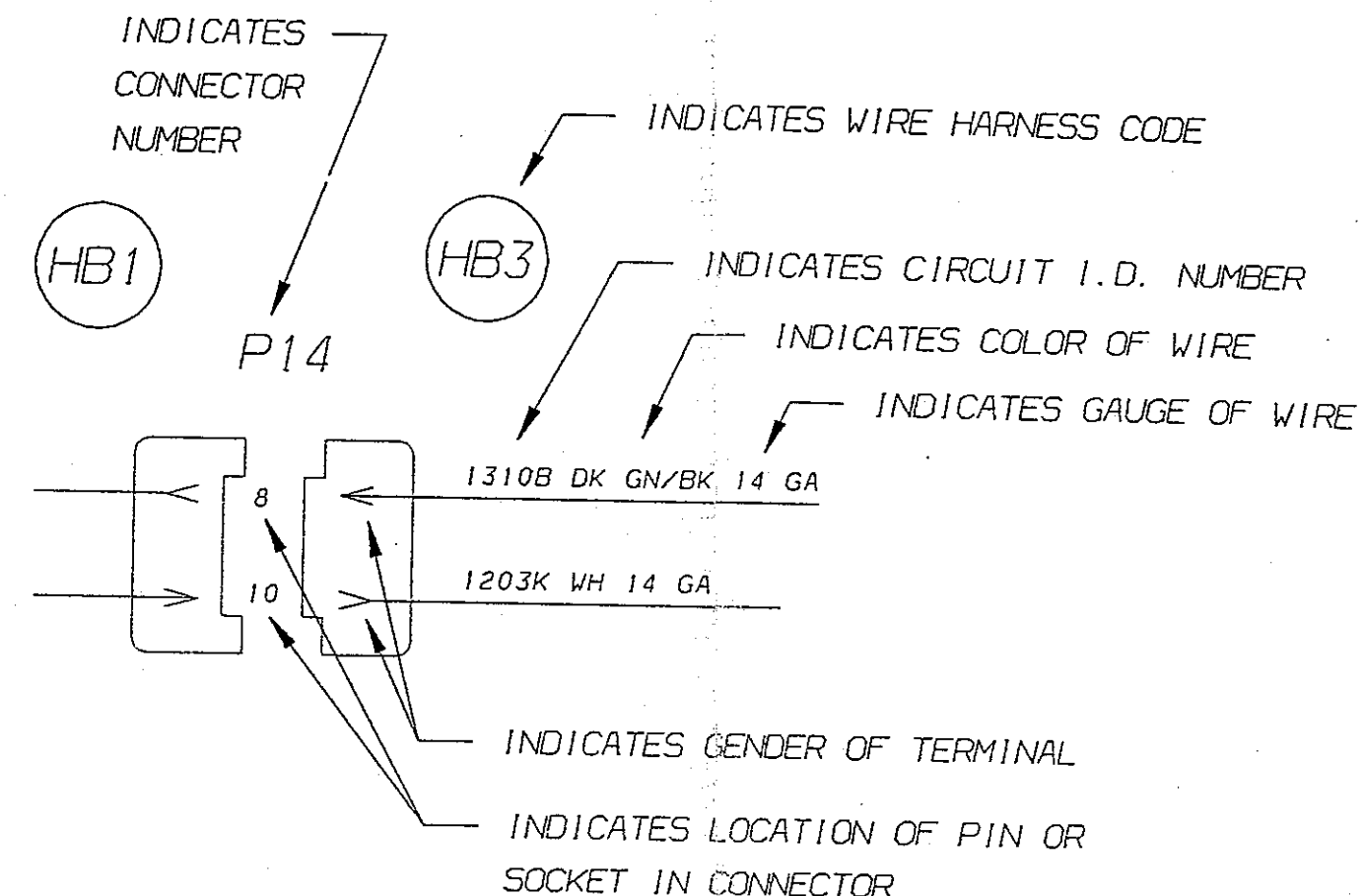
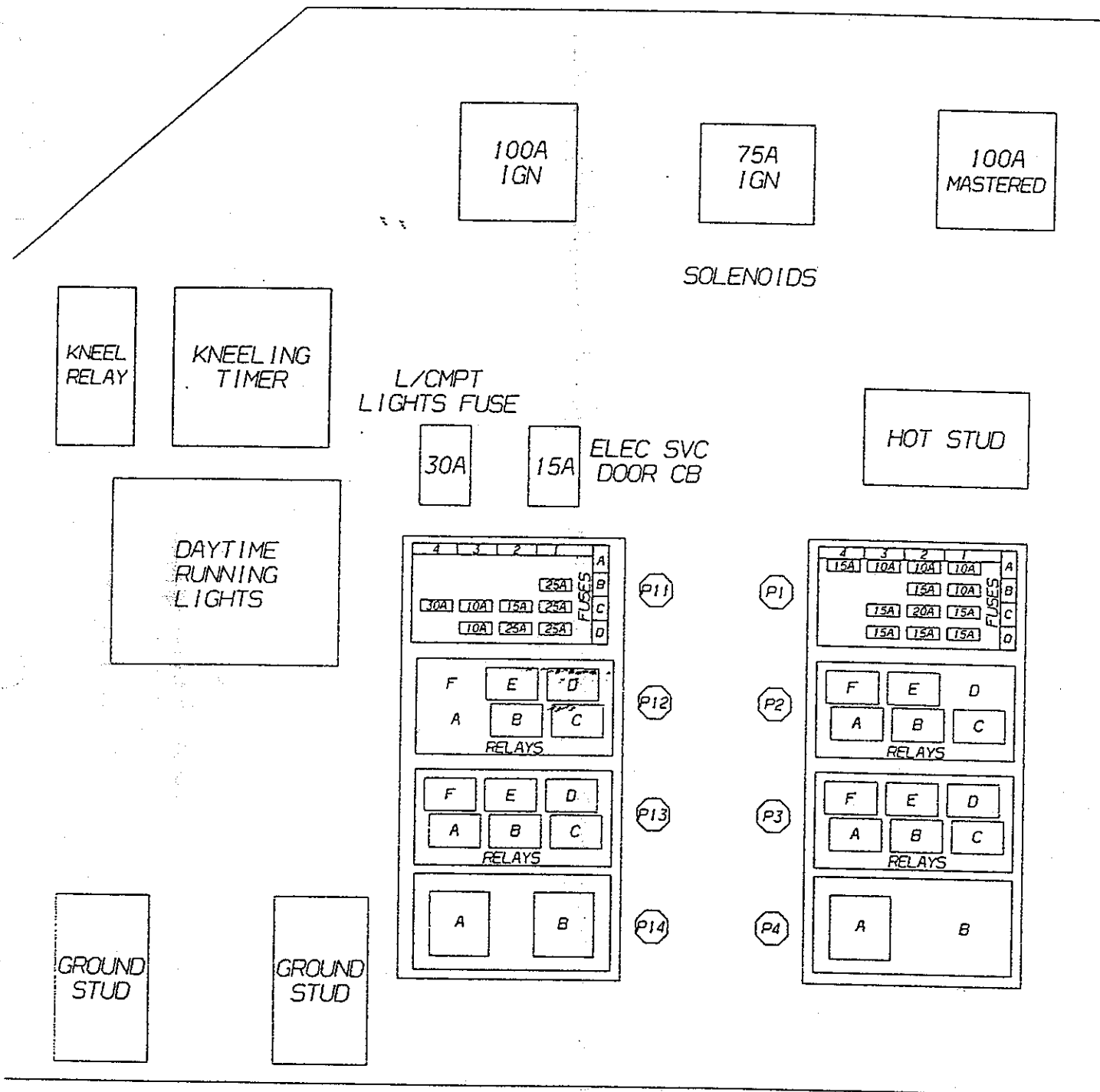


DIAGRAM INSTRUCTIONS BODY

1960053#1



FUSE CHART P11

LOCATION	AMP	DESCRIPTION
P11A1	--	NOT USED
P11A2	--	NOT USED
P11A3	--	NOT USED
P11A4	--	NOT USED
P11B1	25	MASTERED ACCESSORY
P11B2	--	SPARE
P11B3	--	SPARE
P11B4	--	SPARE
P11C1	25	IGNITION
P11C2	15	DRL CTRL
P11C3	10	FUEL SENSOR
P11C4	30	HVAC
P11D1	25	DIR FLASHER
P11D2	25	+12 ACCESSORY
P11D3	10	ENGINE COMPARTMENT
P11D4	--	SPARE

FUSE CHART P1

LOCATION	AMP	DESCRIPTION
P1A1	10	SUSP PRESS PWR/THERMO-KING A/C CTRL
P1A2	10	AIR DRYER
P1A3	10	VIM IGN
P1A4	15	WIPER POWER
P1B1	10	PARK BRAKE
P1B2	15	BACKUP POWER
P1B3	--	SPARE
P1B4	--	ENGINE BRAKE NEUTRAL INTERRUPT (NOT USED)
P1C1	15	HEADLIGHT CONTROL
P1C2	20	HEADLIGHT PWR
P1C3	15	DRL PWR
P1C4	--	SPARE
P1D1	15	HORN
P1D2	15	STOP LIGHT
P1D3	15	CLEARANCE LIGHTS
P1D4	--	VIM (NOT USED)

RELAY CHART P12

LOCATION	DESCRIPTION
P12A	--
P12B	MIRROR SWITCH ILLUMINATION
P12C	HEADLIGHT WARNING
P12D	COOLANT FAN
P12E	CLEARANCE LIGHTS/SALUTE
P12F	--

RELAY CHART P2

LOCATION	DESCRIPTION
P2A	LH WIPER LOW/PARK
P2B	LH WIPER HIGH
P2C	DRL PARK BRAKE CTRL
P2D	---
P2E	RH WIPER HIGH
P2F	RH WIPER LOW/PARK

RELAY CHART P13

LOCATION	DESCRIPTION
P13A	STOP LIGHT
P13B	ENGINE BRAKE CNTRL
P13C	LH DIRECTIONAL
P13D	RH DIRECTIONAL
P13E	ENGINE BRAKE LO/MED
P13F	ENGINE BRAKE HI

RELAY CHART P3

LOCATION	DESCRIPTION
P3A	HEADLIGHT LO BEAM
P3B	PARK BRAKE INTERLOCK
P3C	NEUTRAL START
P3D	CRUISE OVERRIDE
P3E	CLEARANCE LIGHTS
P3F	HORN

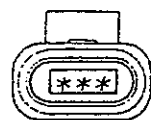
COMPONENT CHART P14

LOCATION	DESCRIPTION
P14A	DRIVING LIGHTS
P14B	DIRECTIONAL FLASHER

COMPONENT CHART P4

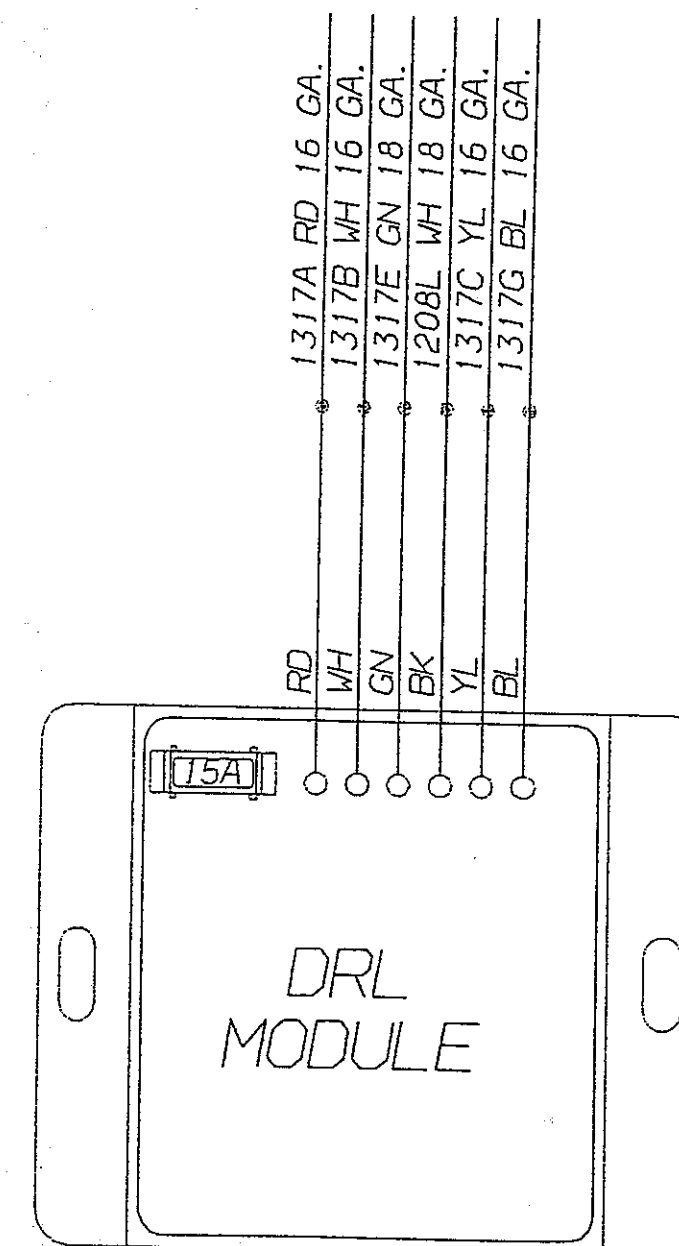
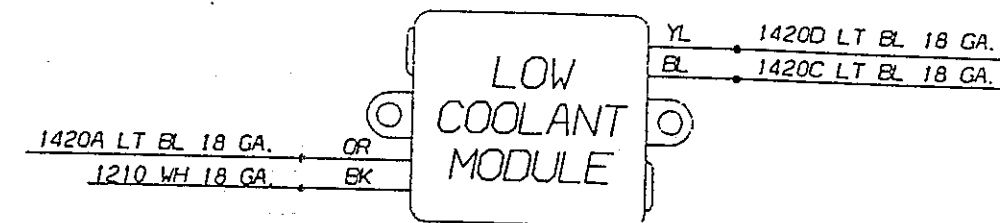
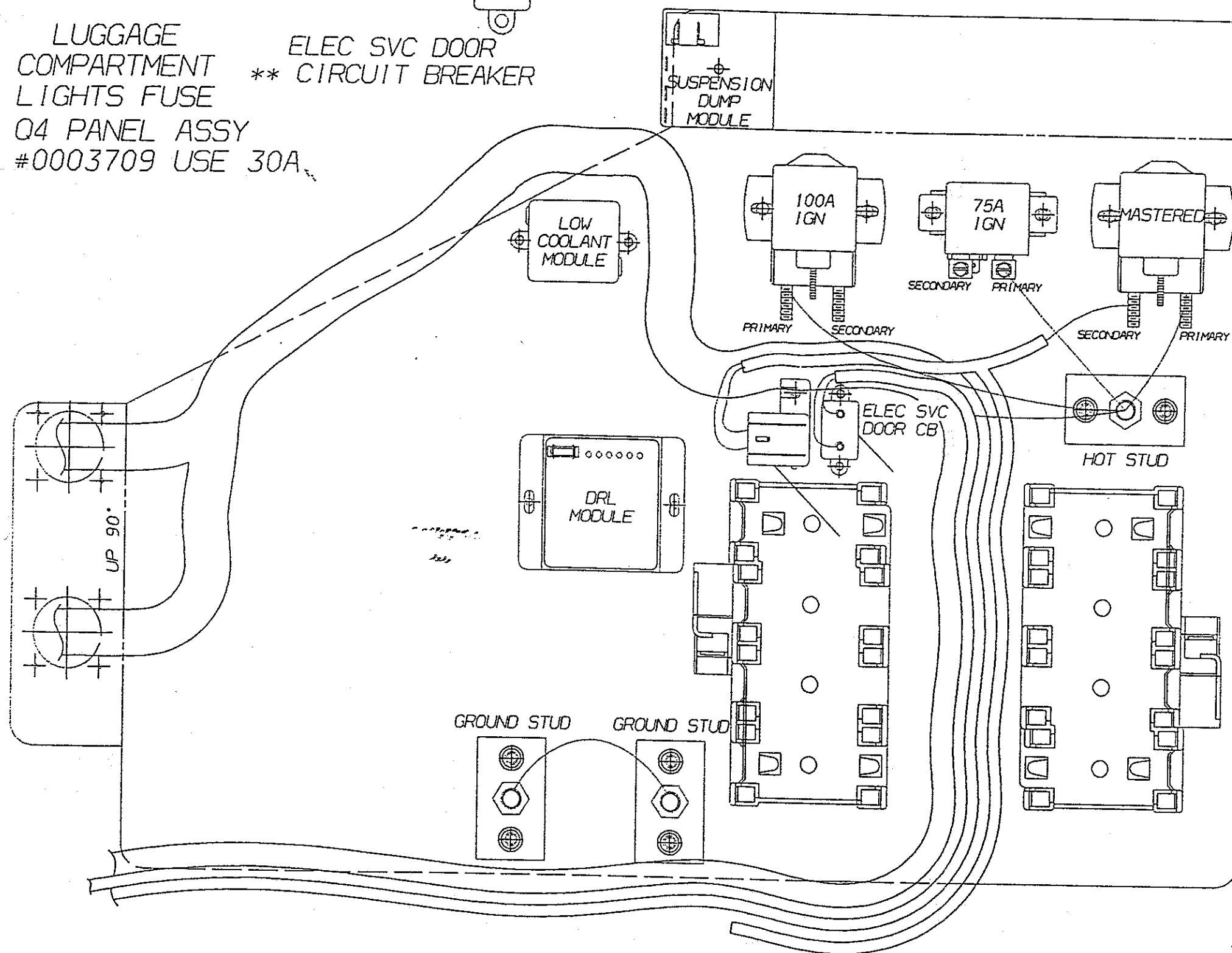
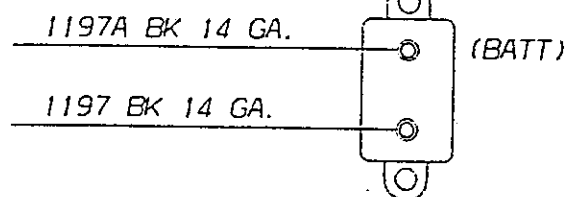
LOCATION	DESCRIPTION
P4A	HEADLIGHT HI BEAM
P4B	

D. W. DECAL FRONT ELECTRICAL PANEL DDEC 0000009



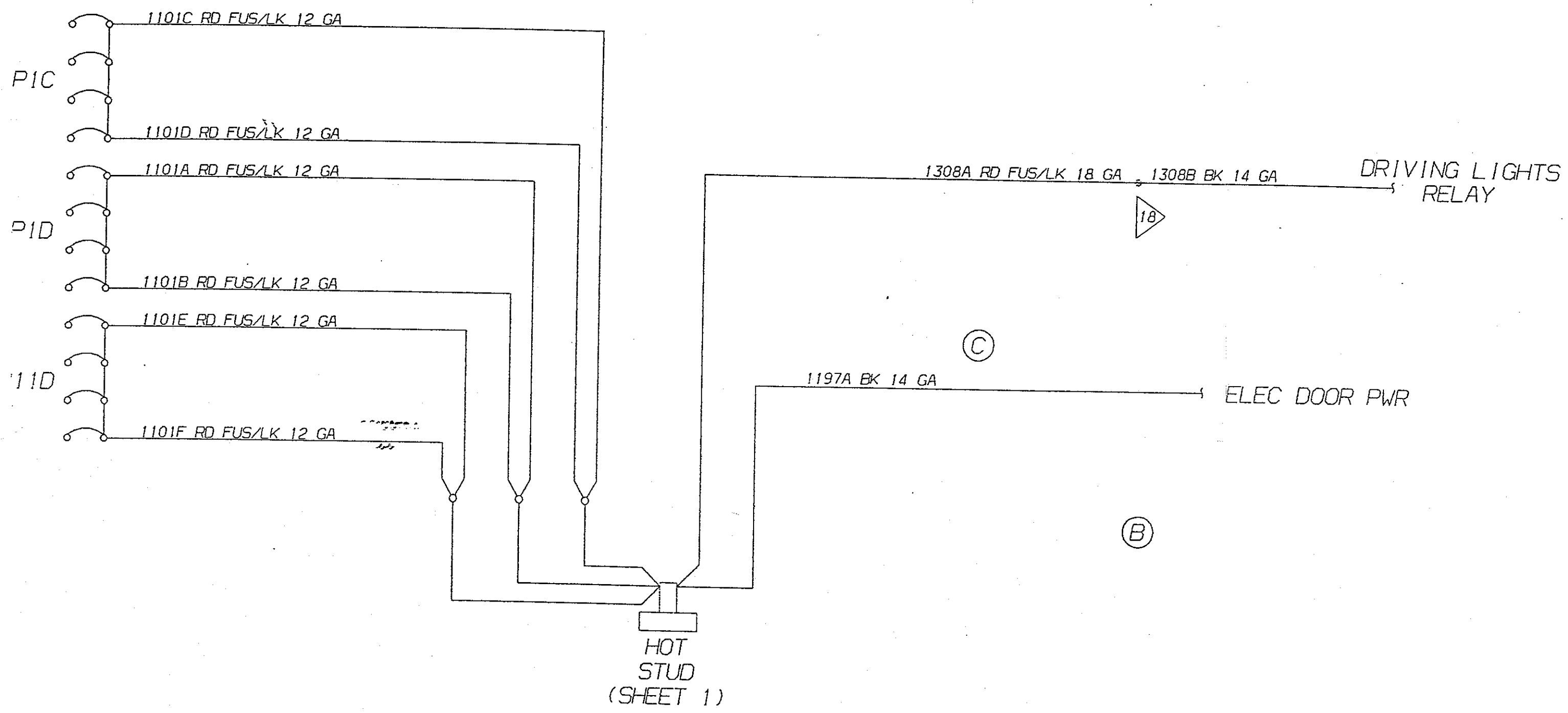
LUGGAGE
COMPARTMENT
LIGHTS FUSE
Q4 PANEL ASSY
#0003709 USE 30A

ELEC SVC DOOR
** CIRCUIT BREAKER



D. W. SIDE ELECTRICAL PANEL 0000880M #1

POWER
DISTRIBUTION



D. WRG. POWER DIST. INPUT 1990977 #2

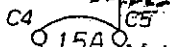
P11



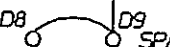
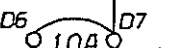
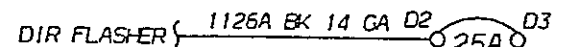
NOT USED



MASTERED



75A



CONST

1130E BK 12 GA } MASTERED SOLENOID PWR

B4 B5 SPARE

B6 B7 SPARE

B8 B9 SPARE

1102J BK 12 GA } IGNITION

1317G BL 16 GA } DRL CTRL

1155 BK 16 GA } FUEL SENSOR

2301B YL 12 GA } HVAC

1101G BK 12 GA } +12 ACCESSORY

1433B RD 16 GA } ENGINE COMPARTMENT

P1



WIPER POWER

(C)



ENGINE BRAKE NEUTRAL
INTERRUPT IGNITION
(NOT USED)

(C)



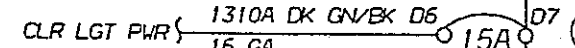
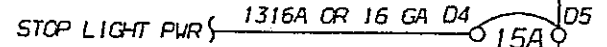
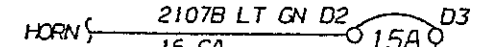
(A)

HEADLIGHT PWR

1301G DK GN/BK } HEADLIGHT CTRL

1317A RD 16 GA } DRL PWR

C8 C9 SPARE



1112A RD 18 GA } VIM (NOT USED)

IGN

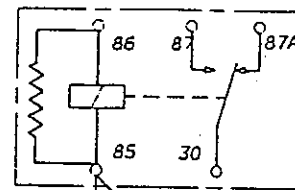
IGN

CONST

CONST

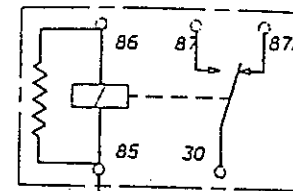
D. WRG. POWER DISTRIBUTION FUSED DDEC 1960004M REV.C

HEADLIGHT
HI BEAM



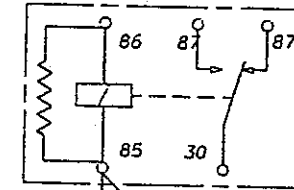
1203D WH 18 GA

HEADLIGHT
LO BEAM



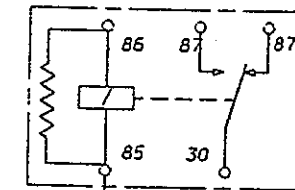
24

ENG BRAKE
LO/MED



1208E WH 18 GA

ENG BRAKE
HI



1208G WH 18 GA

HB1

P5

WANDERLODGE

1201A WH 16 GA

7 > INSTRUMENT GRD

P6

P9

HC1

1216 WH 18 GA

23 < BRAKE SW GRD

HB2

P9

P1

1203G WH 14 GA

19 > CLR LGT GRD

1229 WH 14 GA

15 > LANDING LGT GRD

HC1

P7

P7

1255 WH 16 GA

12 > FUEL SENSOR GRD

1203C WH 18 GA

1201 WH 16 GA

1208E WH 18 GA

1203G WH 14 GA

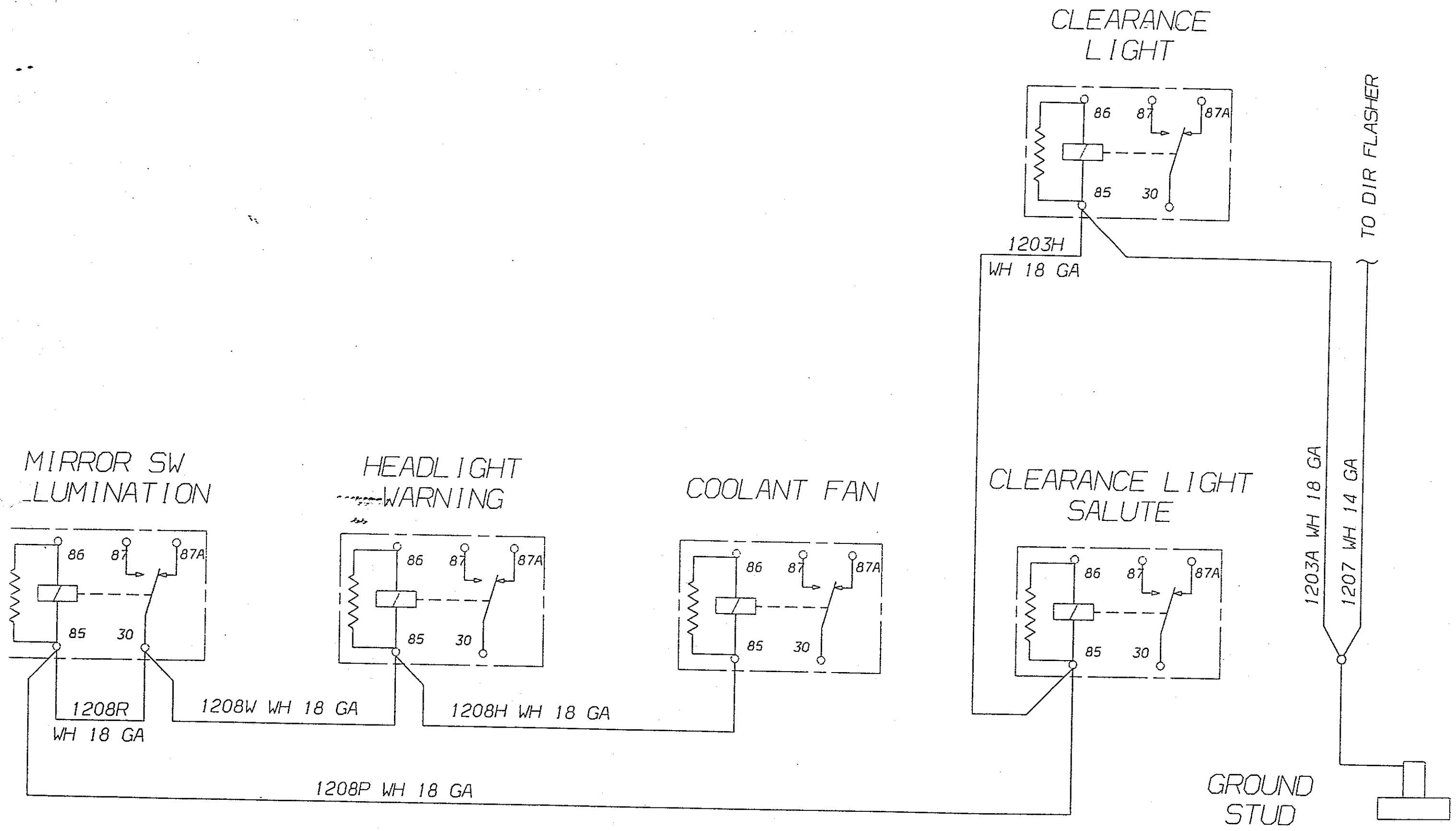
1229 WH 14 GA

1255 WH 16 GA

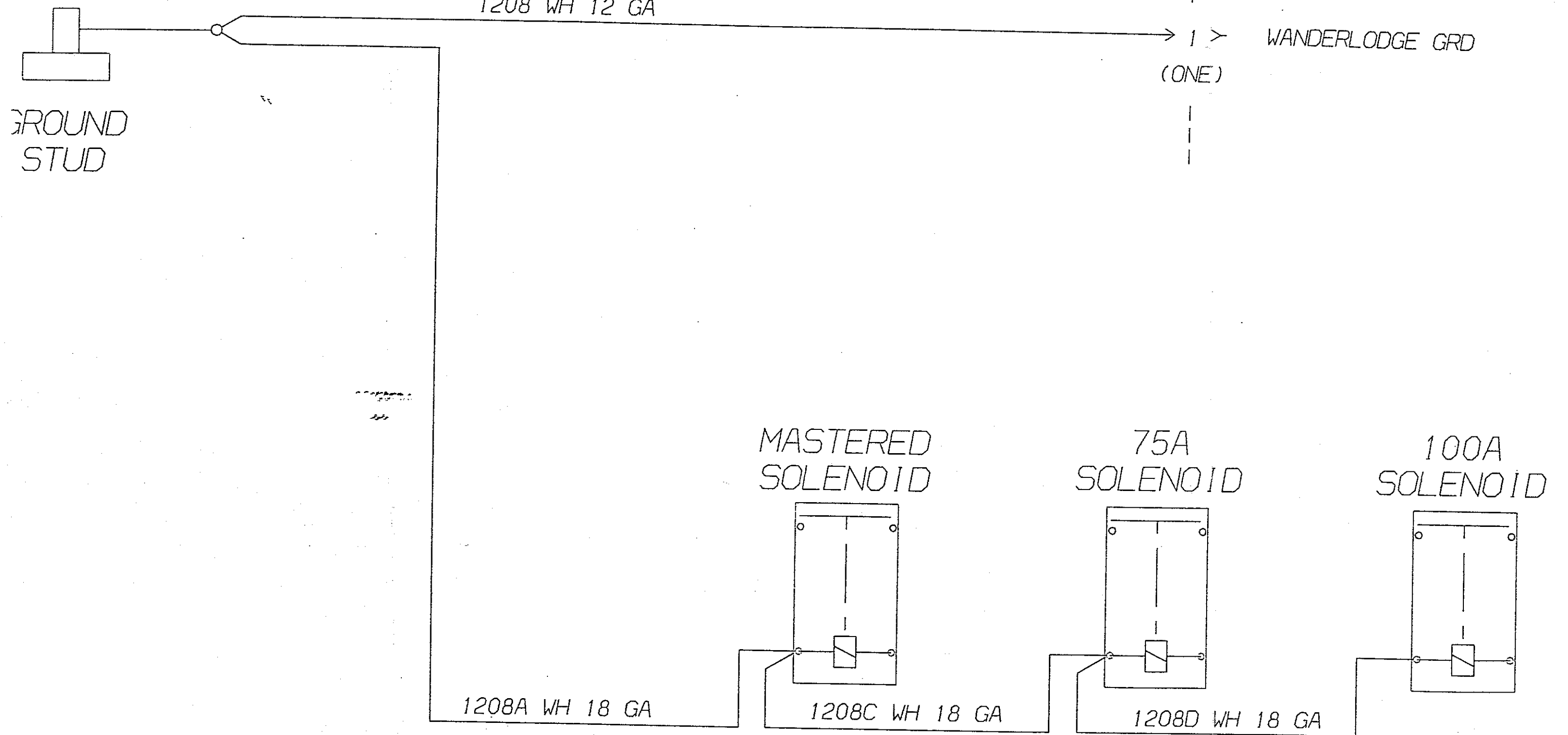
B

GROUND STUD

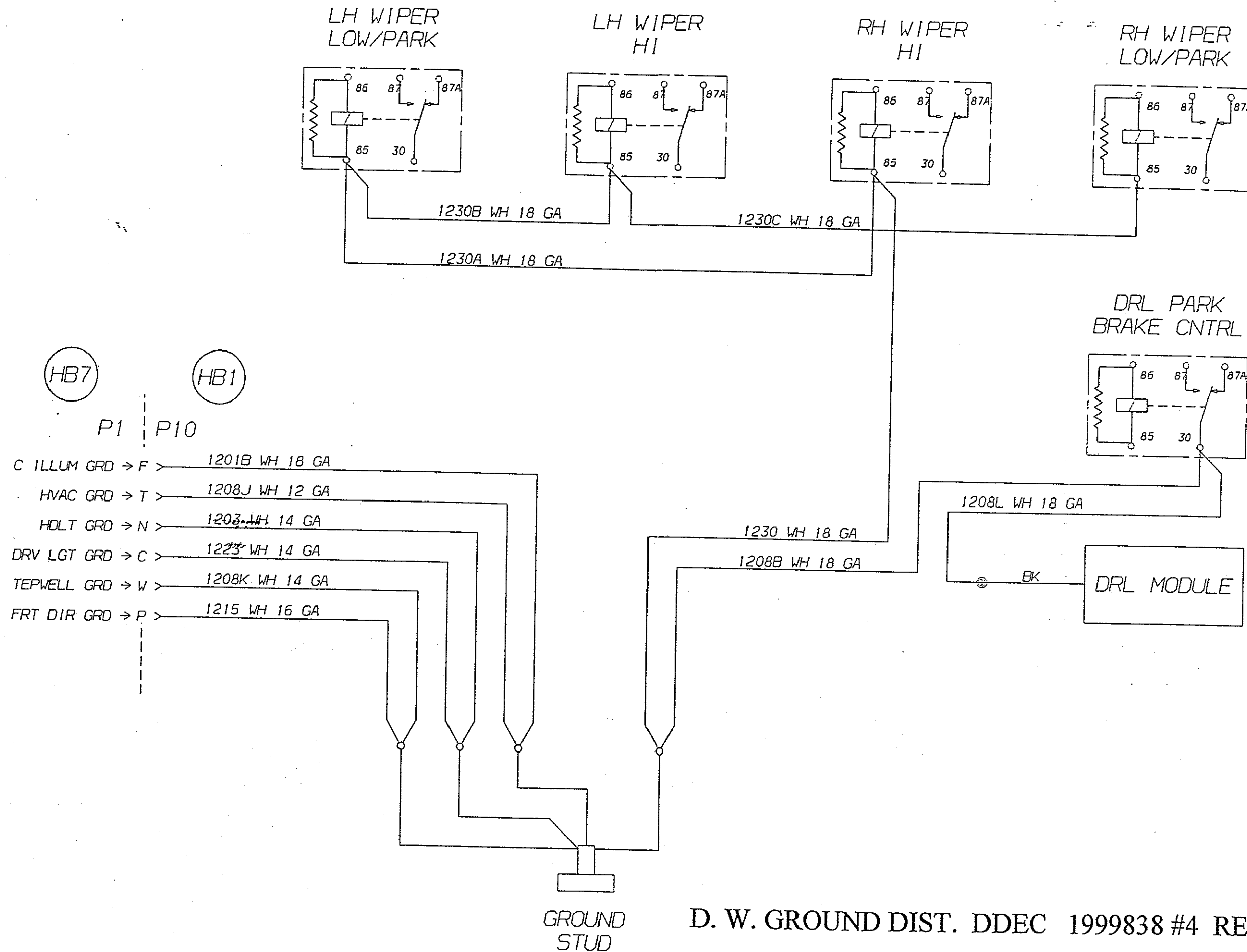
D. W. GROUND DIST. DDEC 1999838 #1 REV. A



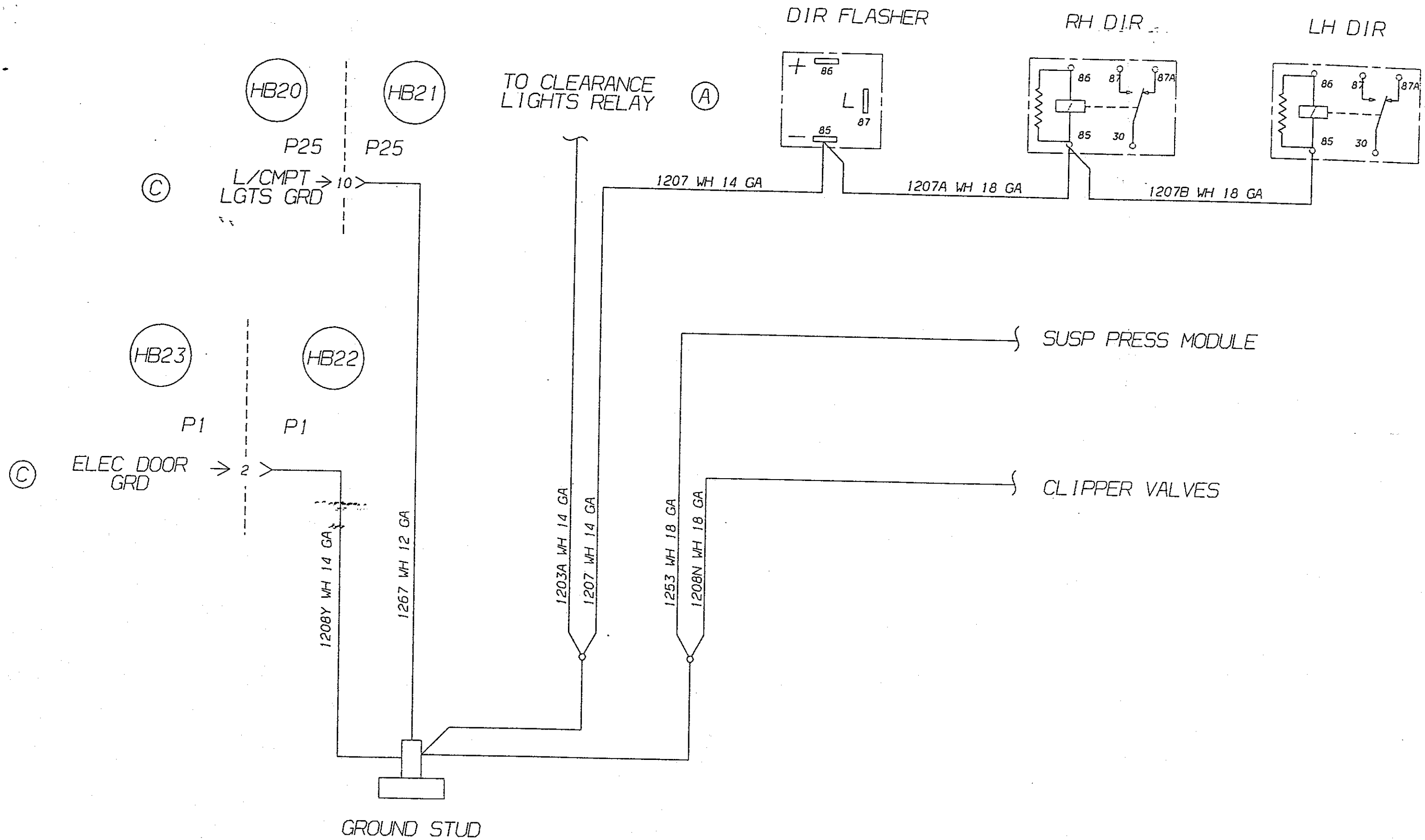
D. W. GROUND DIST. DDEC 1999838 #2 REV. A



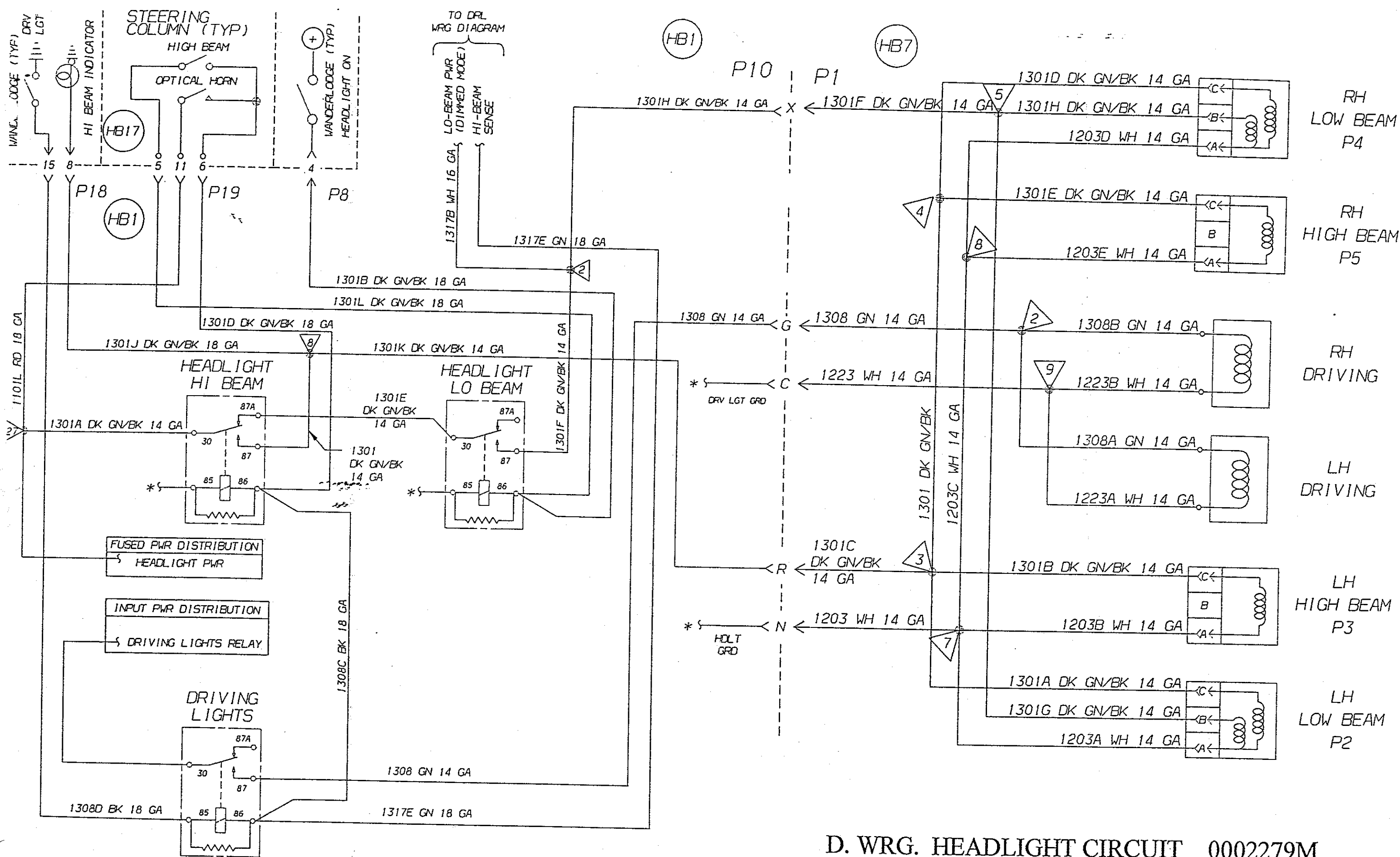
D. W. GROUND DIST. DDEC 1999838 #3 REV. C



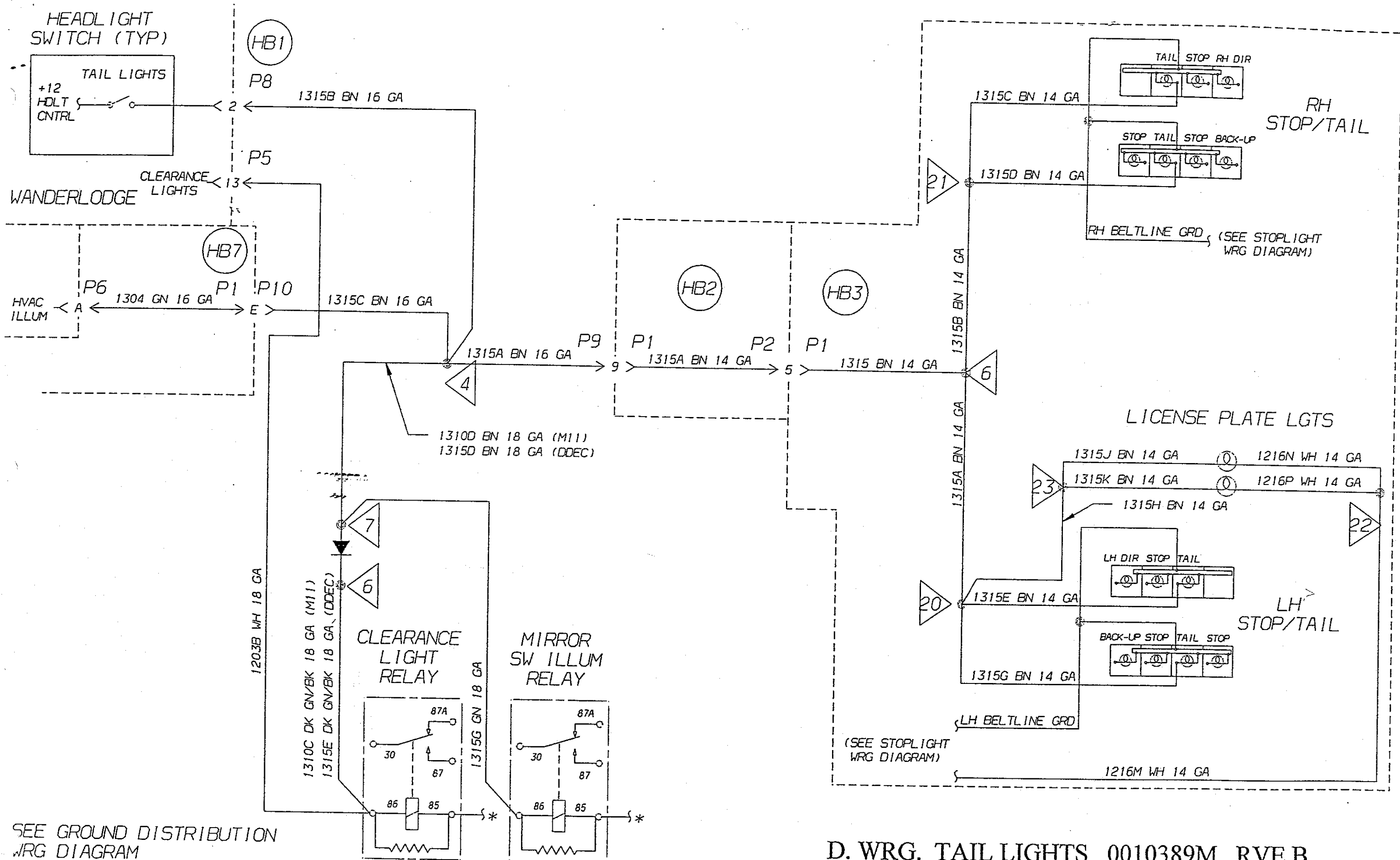
D. W. GROUND DIST. DDEC 1999838 #4 REV. C

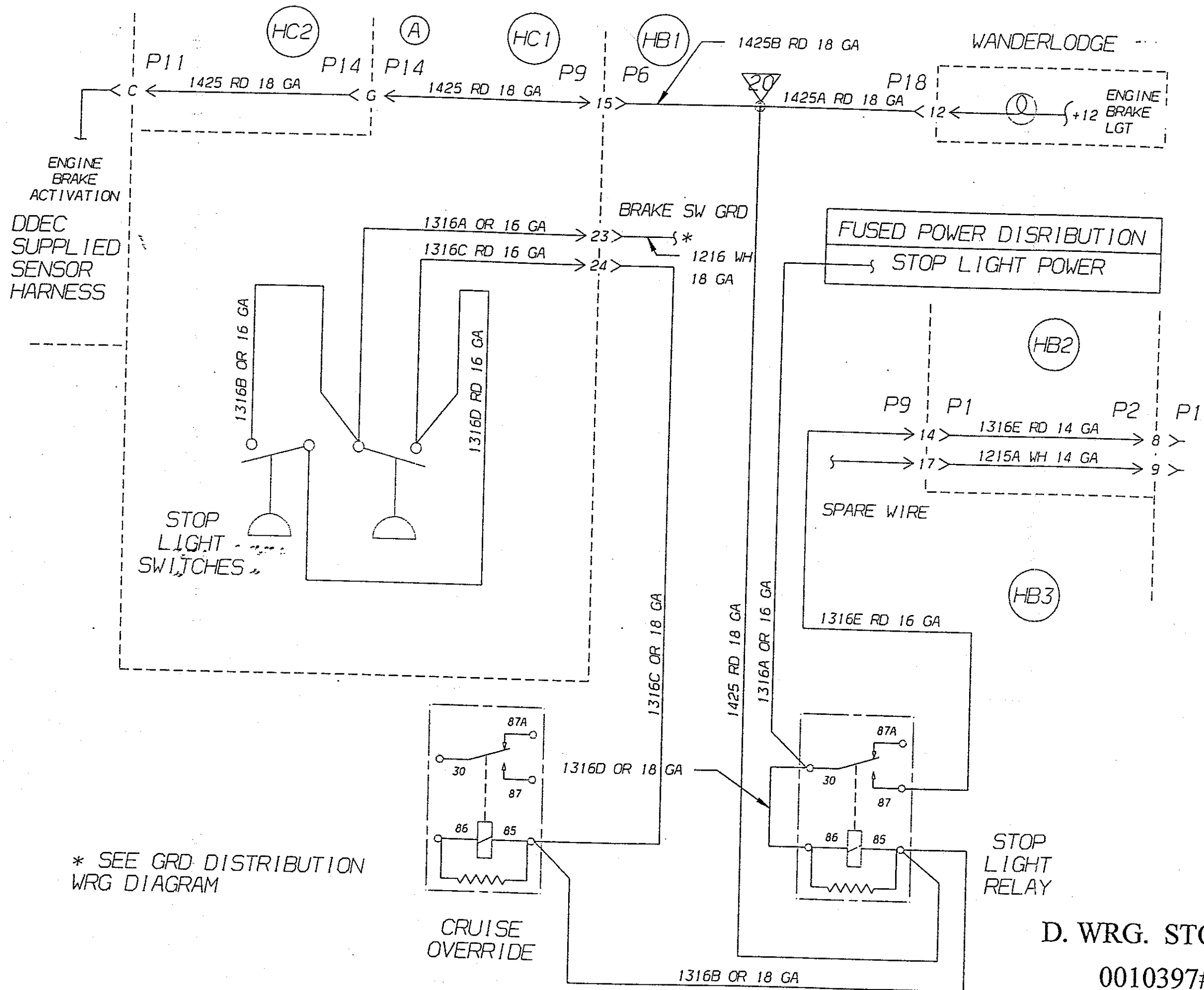


D. W. GROUND DIST. DDEC 1999838 #5 REV. C

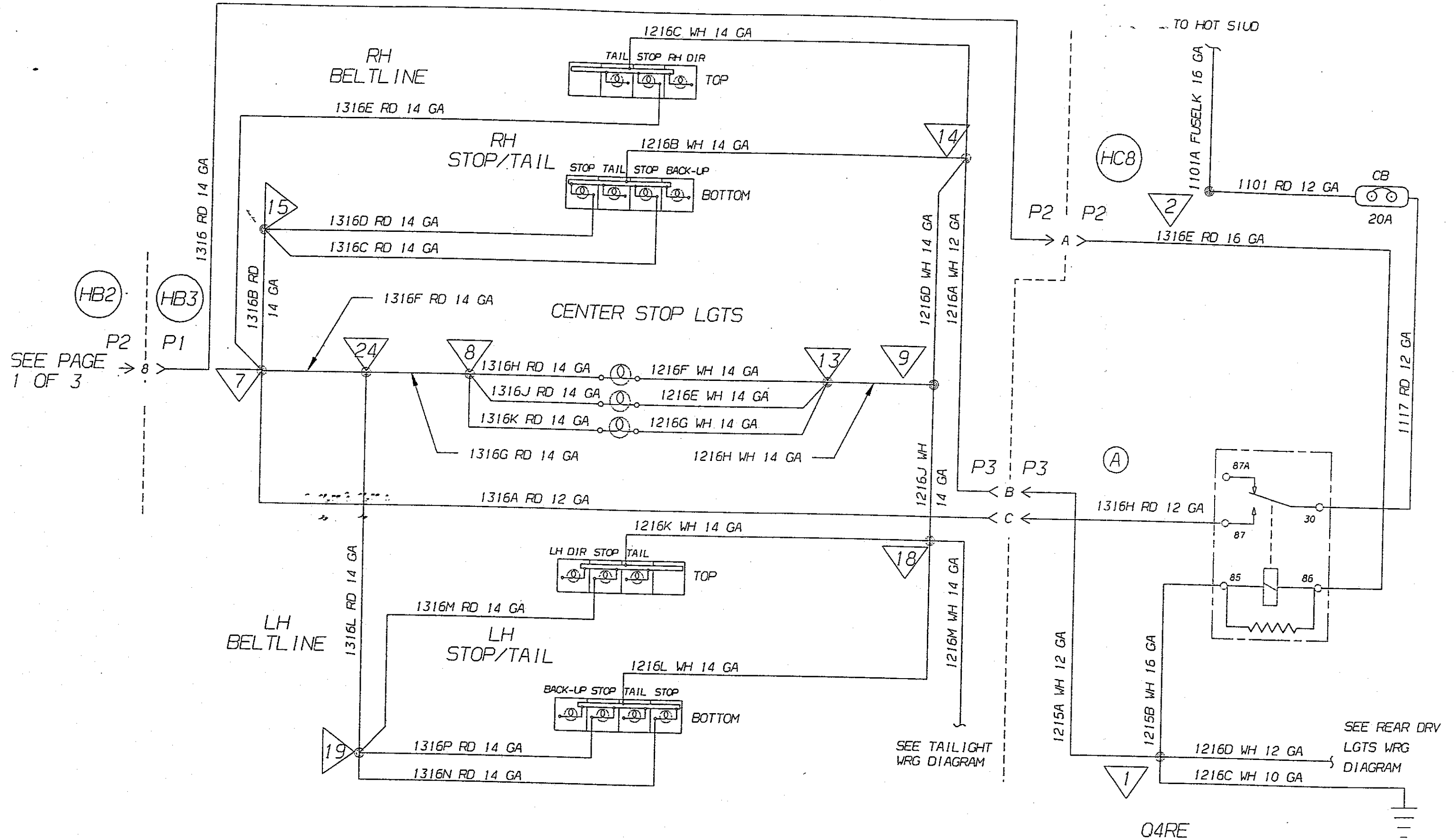


D. WRG. HEADLIGHT CIRCUIT 0002279M

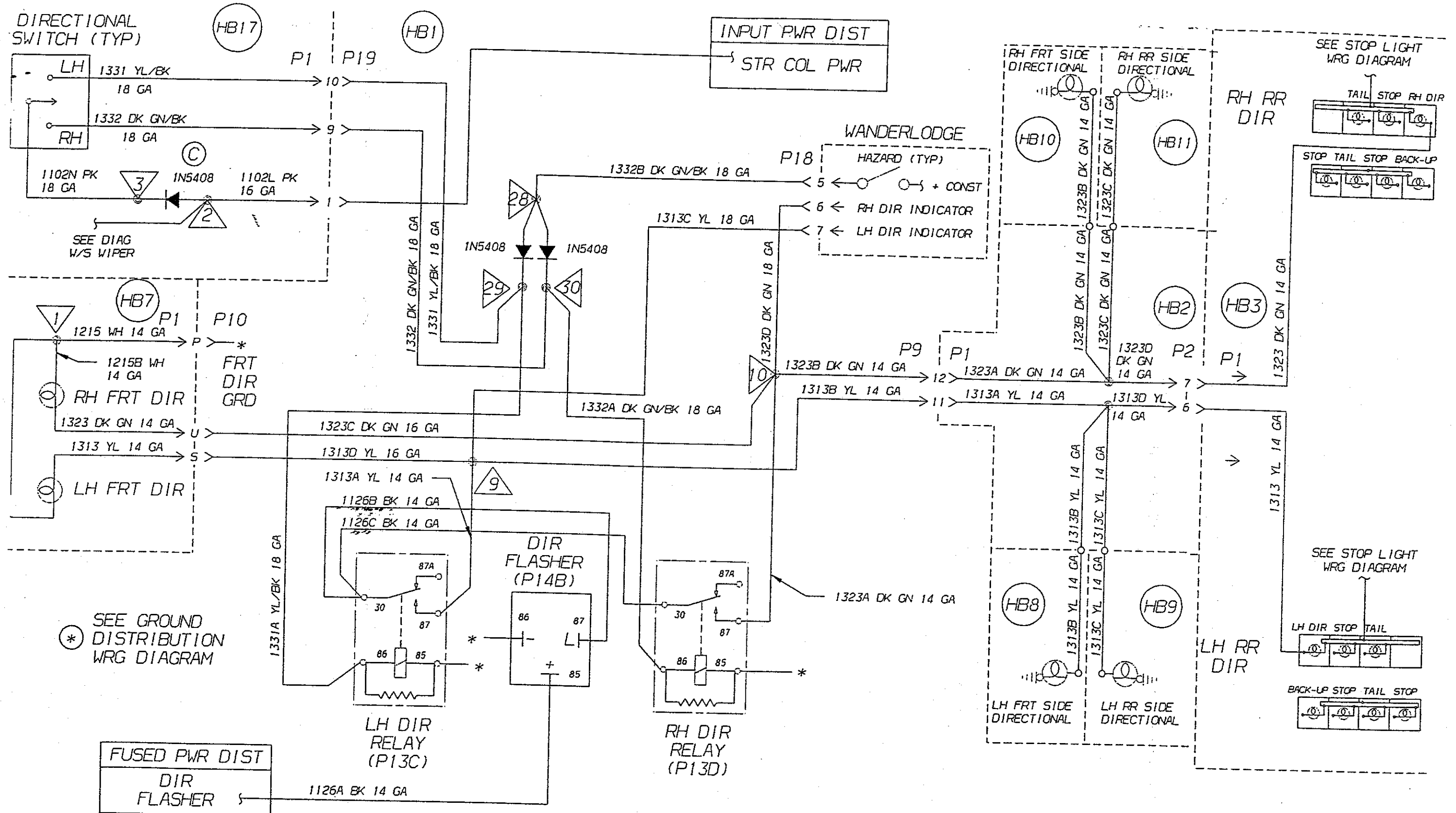


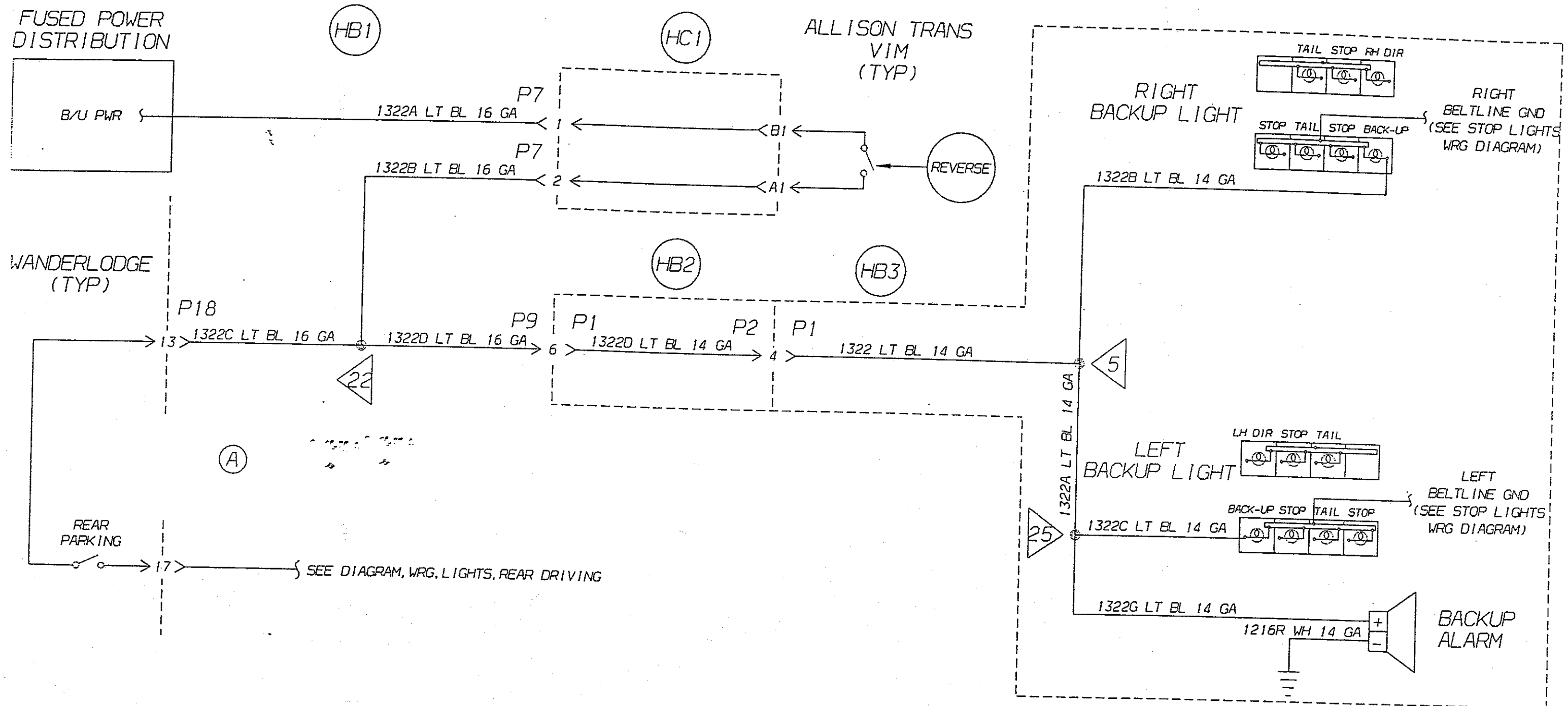


D. WRG. STOP LIGHT DDEC
0010397#1 M

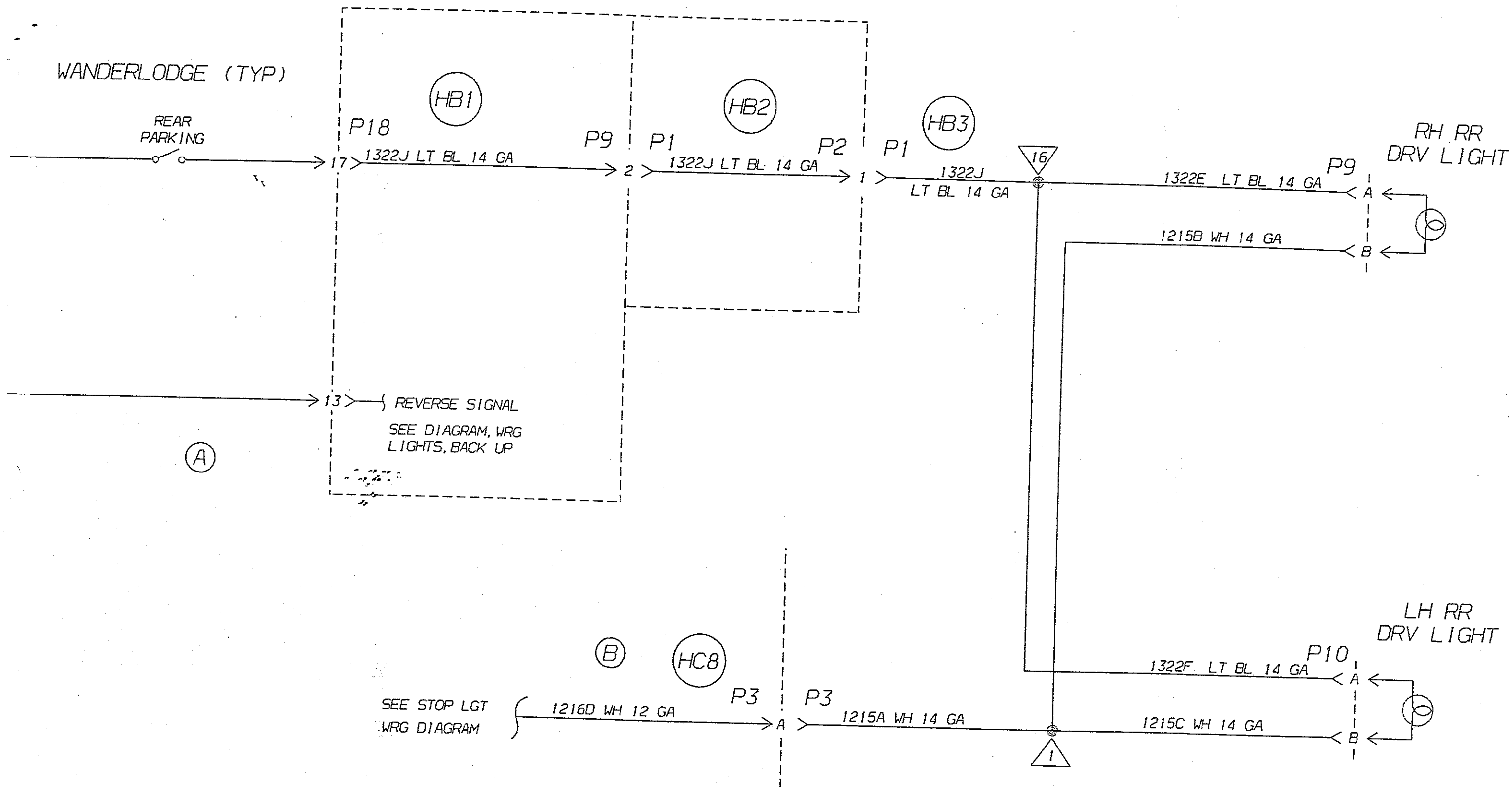


D. WRG. STOP LIGHTS DDEC 0010397 #2M

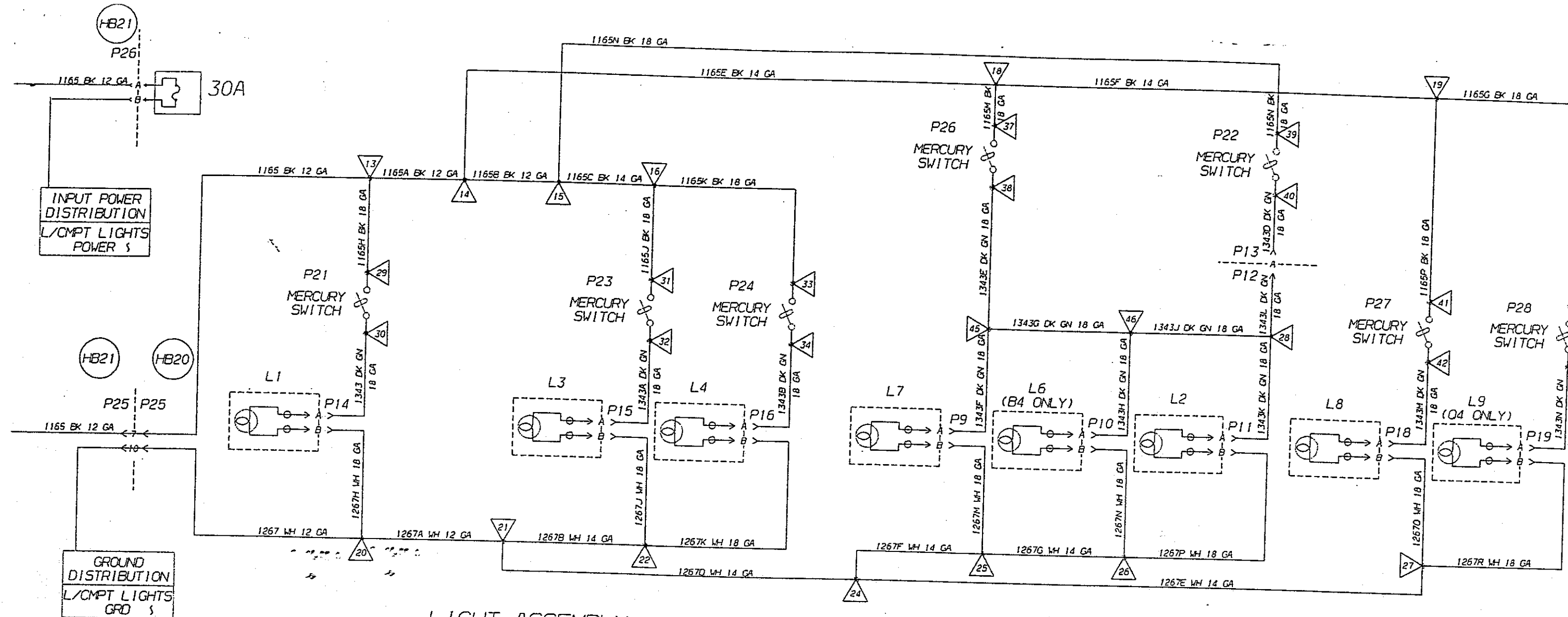




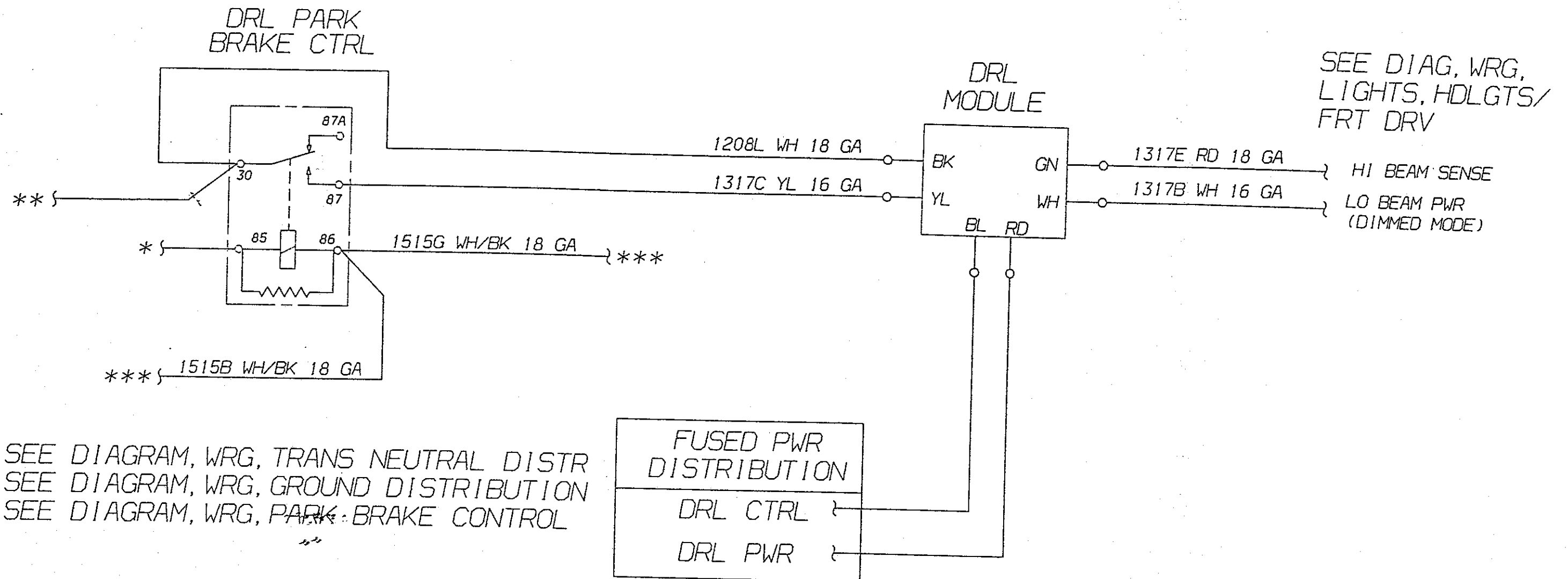
D. WRG. BACK UP CIRCUIT 0000240



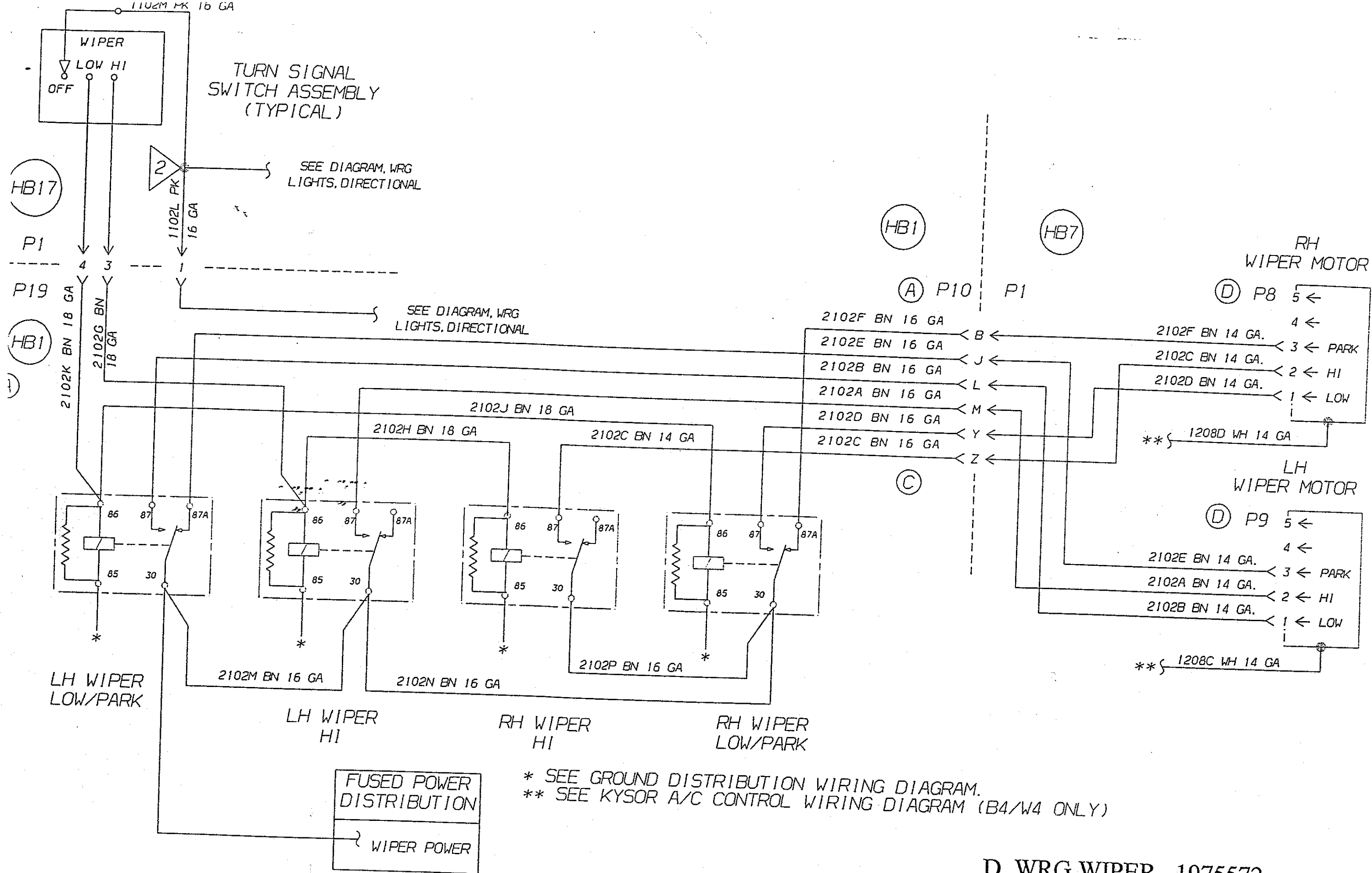
D. WRG. REAR DRIVING LIGHTS 0005561M REV.



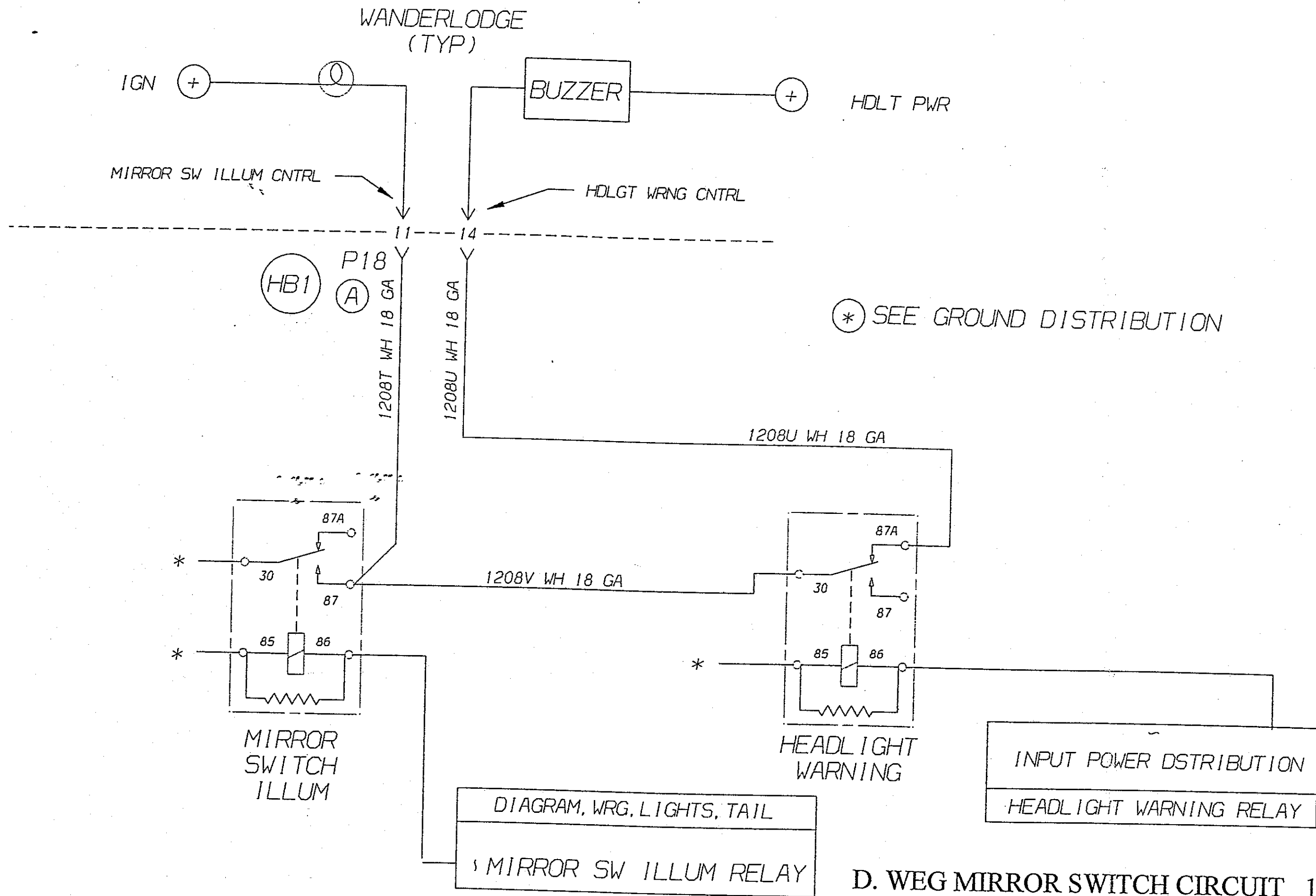
D. WRG. LUGGAGE COMP. 0005587M REV.

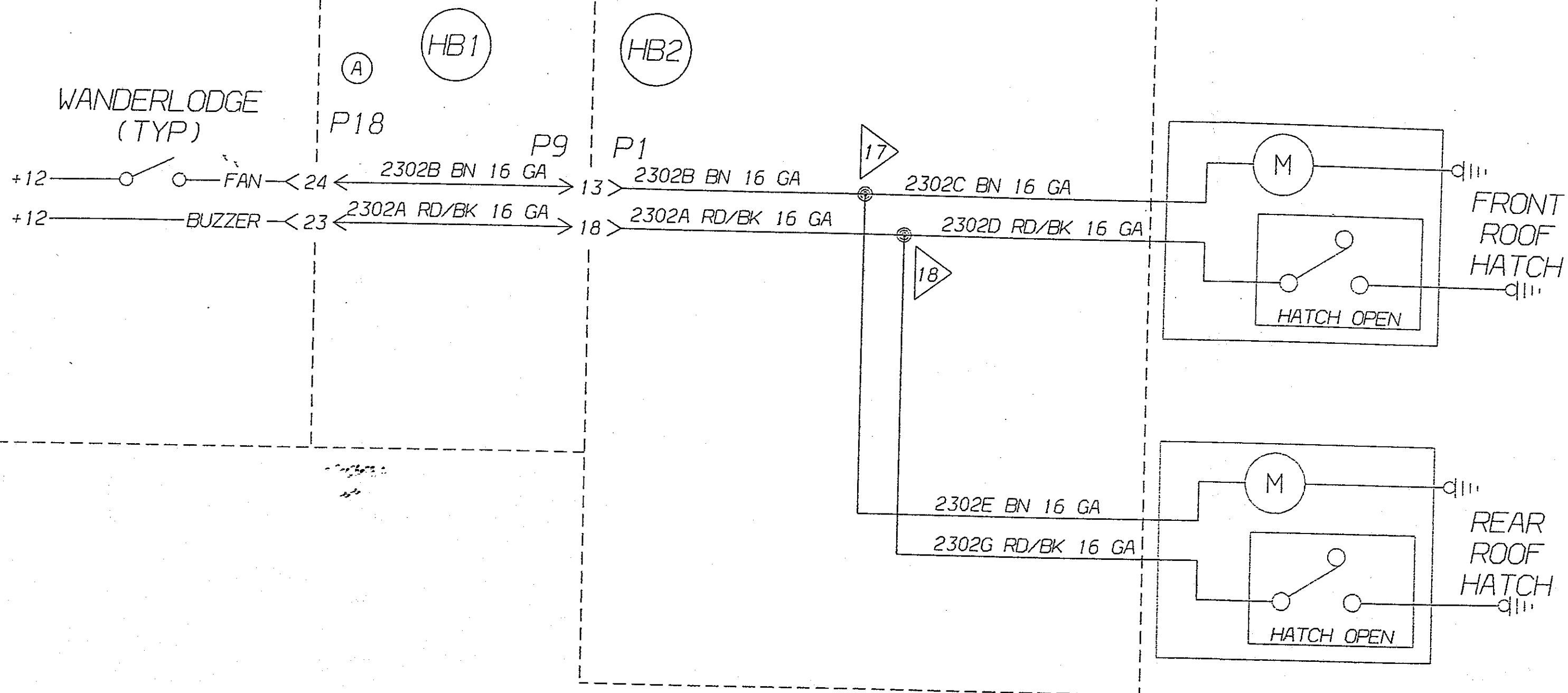


D. W. DAY TIME RUNNING LIGHTS 1999853

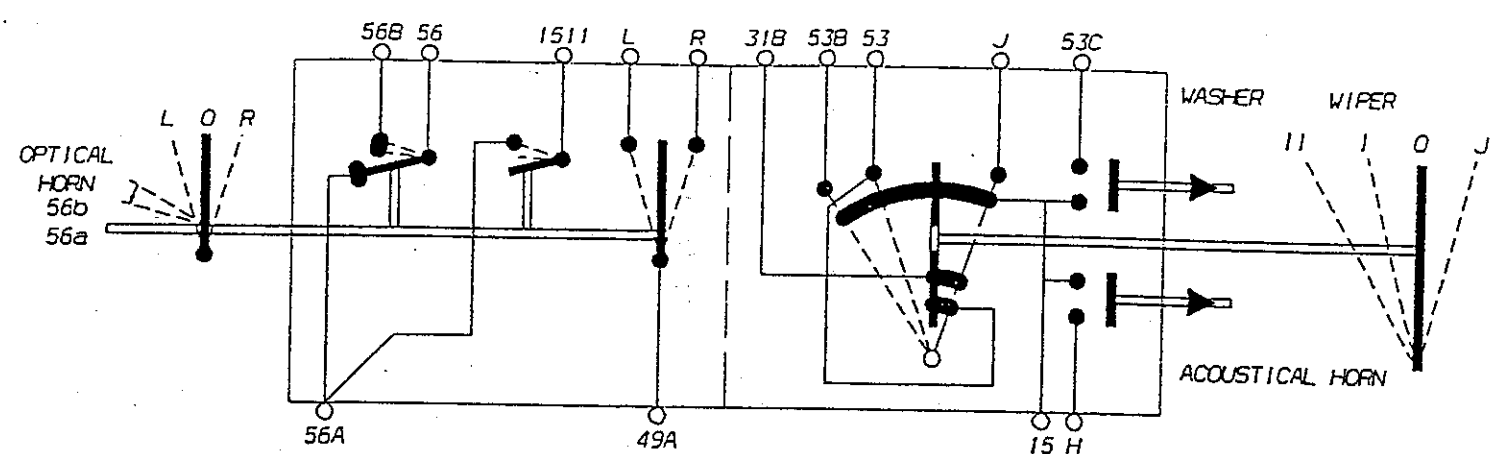


D. WRG. WIPER 1975572

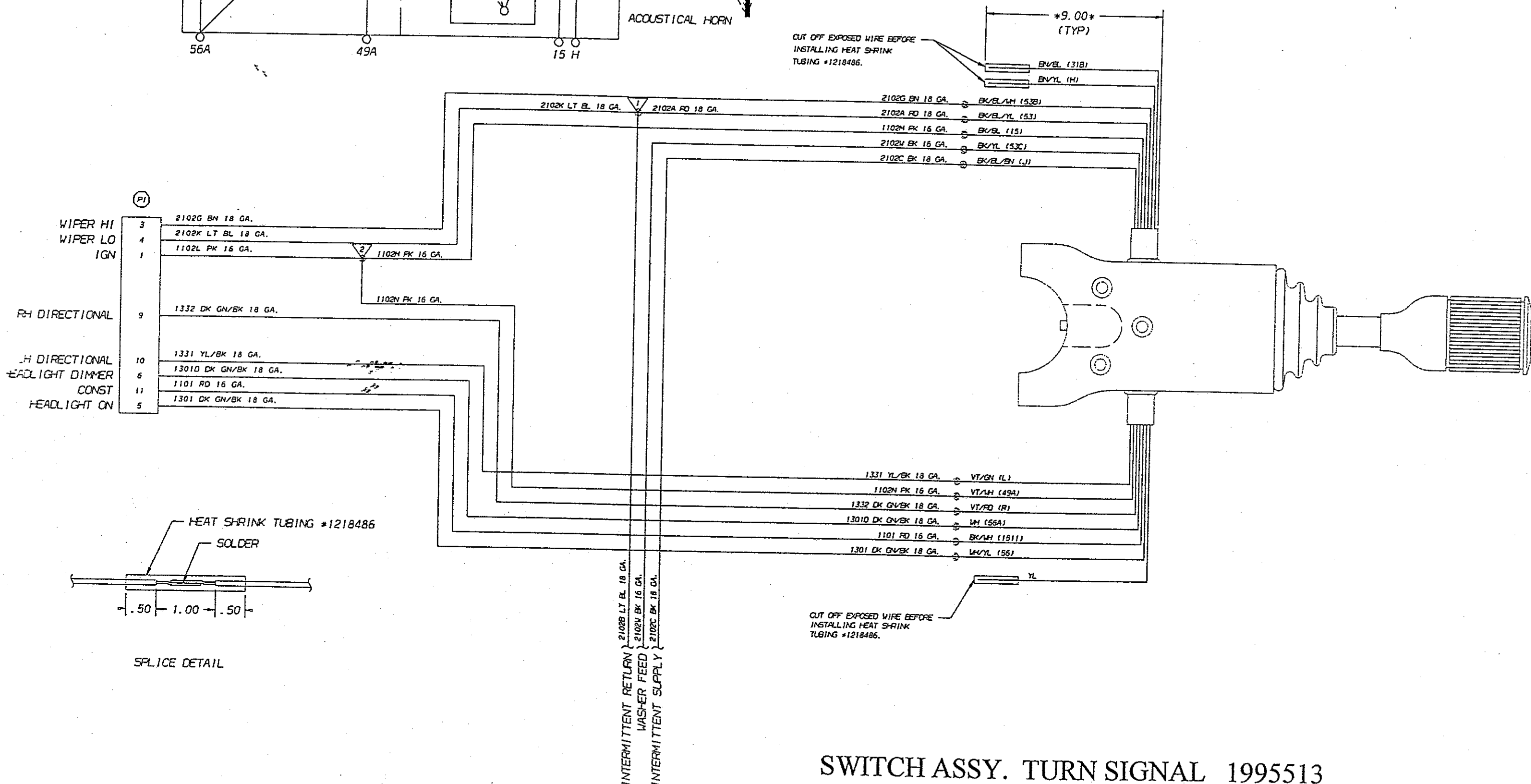




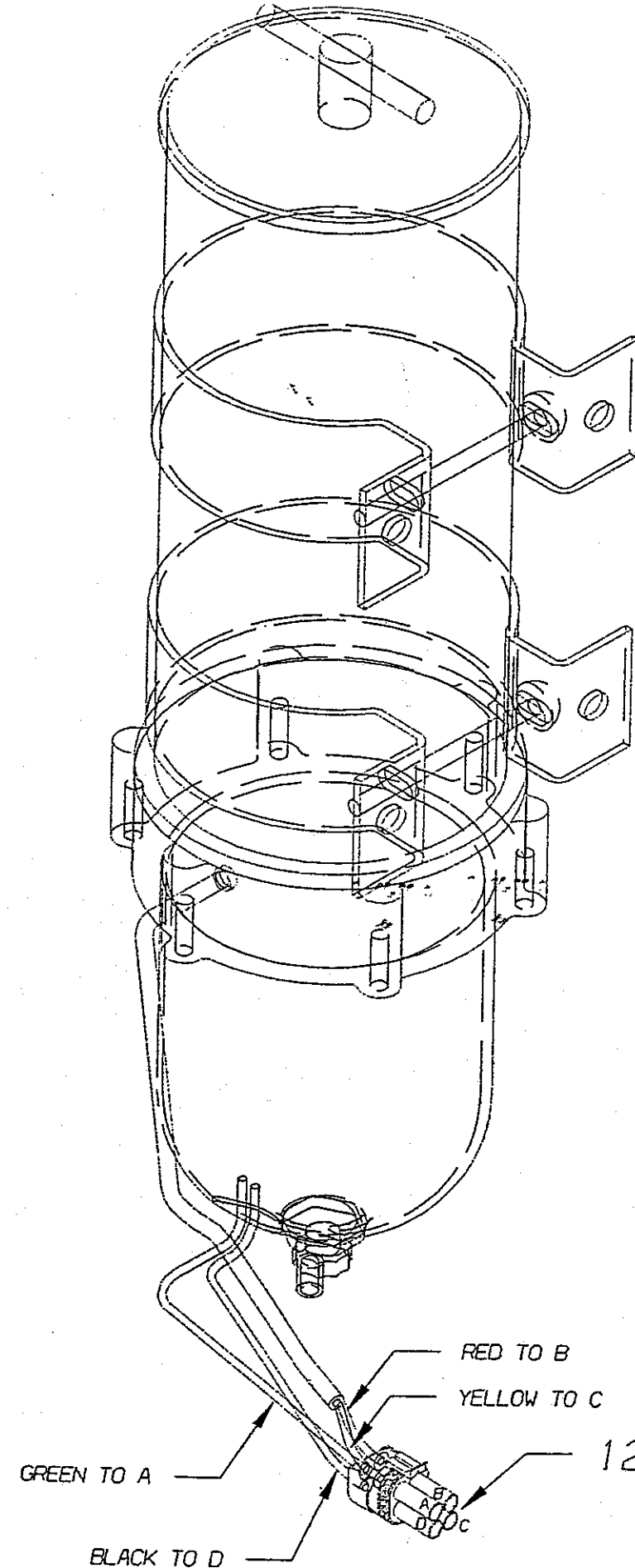
D.W. ROOF HATCH 1991595M REV.A



1995513 SWITCH ASSY, TURN SIGNAL, SELF CANCELLING WL
 1399195 SWITCH, DIRECTIONAL, SLF CNCL, E-003-009
 1218486 TUBING, HEAT SHRINK, SEALING, BLACK, 3/8 DIA
 1985167 HARNESS, WRG, STEERING COLUMN WARE

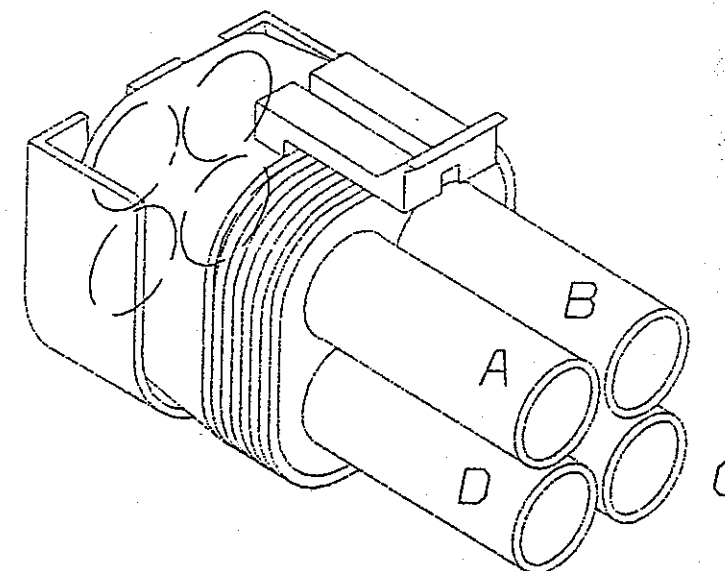


SWITCH ASSY. TURN SIGNAL 1995513

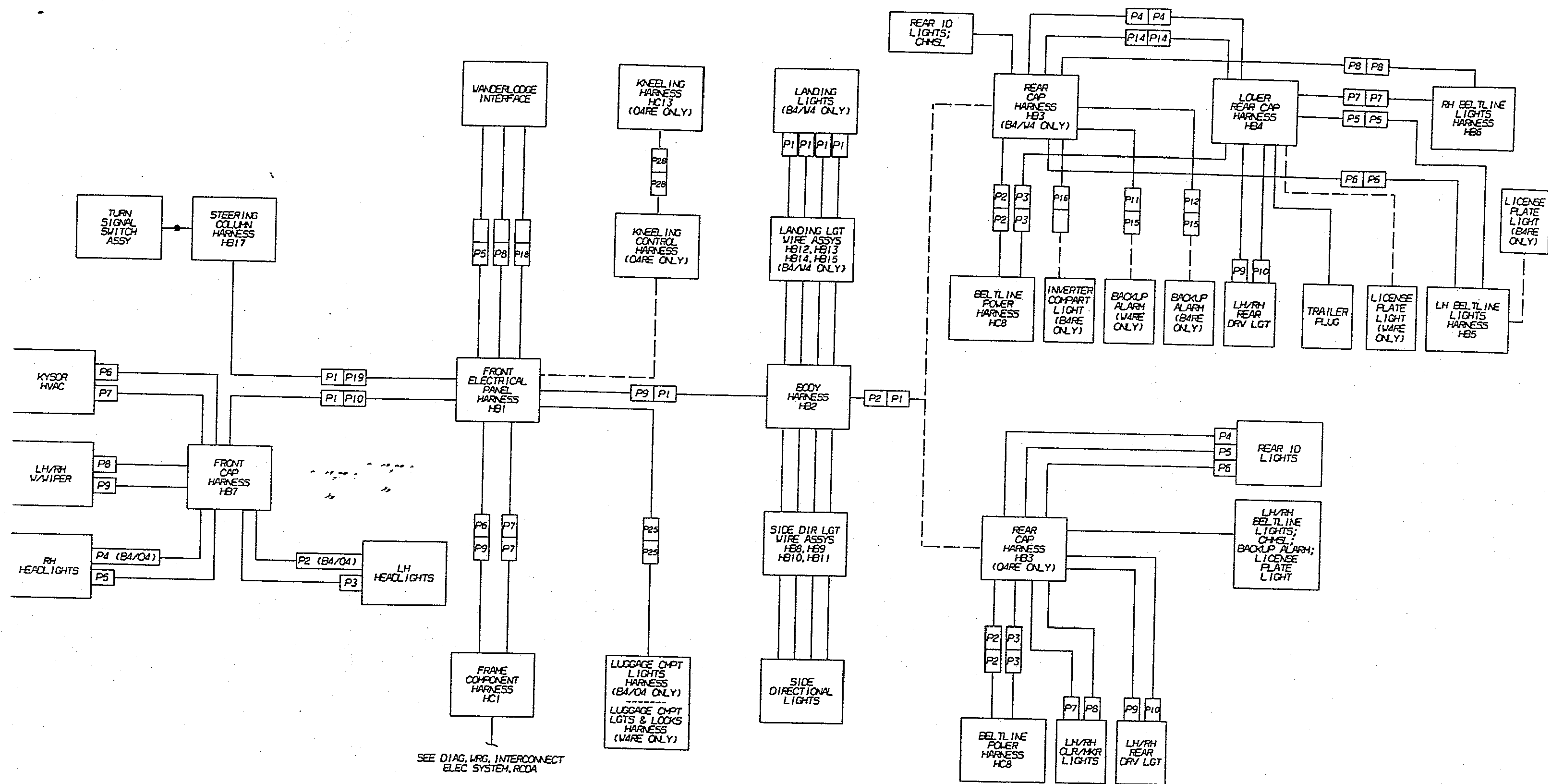


FILTER: 30 MICRON, RED RACOR

CONNECTOR DETAIL
12015798 W/SOCKET 12124580 (D)

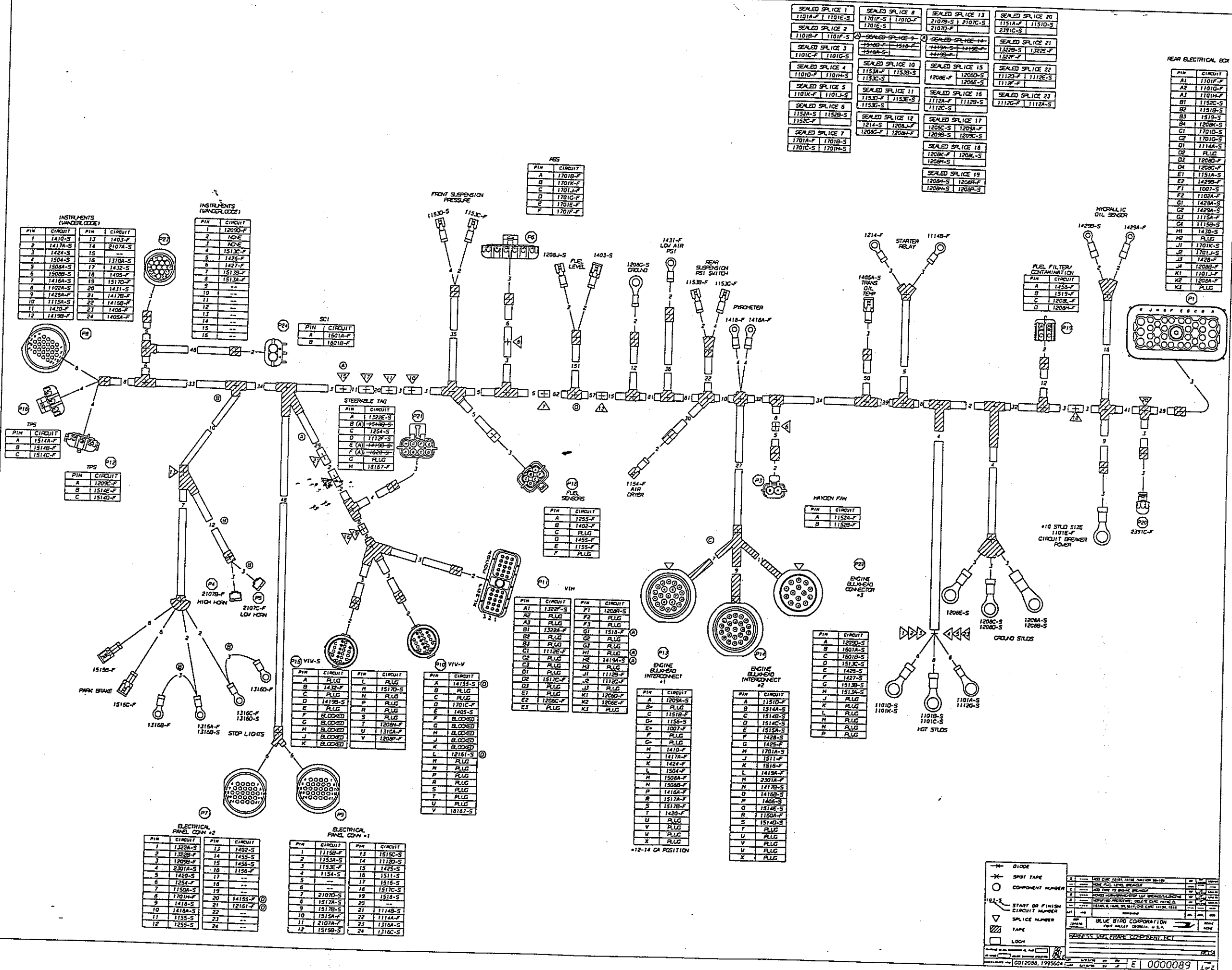


FILTER FUEL / WATER SEPARATOR
RACOR 1153655M



INTERCONNECT LOCATIONS Q4 BODY

#	DESCRIPTION	LOCATION
1	P6 TO KYSOR HVAC	UPPER DASH
2	P7 TO KYSOR HVAC	UPPER DASH
3	P8 TO WIPER	AT THE WIPER MOTOR
4	P9 TO WIPER	AT THE WIPER MOTOR
5	P4 TO HEAD LIGHTS	NO CONNECTOR USED, CIRCUIT RUNS TO THE HEAD LIGHTS
6	P5 TO HEAD LIGHTS	NO CONNECTOR USED, CIRCUIT RUNS TO THE HEAD LIGHTS
7	P1 TO P19	SIDE ELECTRICAL PANEL, LEFT SIDE, REF. PICTURE B. P.11
8	P1 TO P10	SIDE ELECTRICAL PANEL, LEFT SIDE, REF. PICTURE B. P.11
9	P2 TO HEAD LIGHTS	NO CONNECTOR USED, CIRCUIT RUNS TO THE HEAD LIGHTS
10	P3 TO HEAD LIGHTS	NO CONNECTOR USED, CIRCUIT RUNS TO THE HEAD LIGHTS
11	P5 TO W. INTERFACE	SIDE ELECTRICAL PANEL, LEFT SIDE, REF. PICTURE B. P.10
12	P8 TO W. INTERFACE	SIDE ELECTRICAL PANEL, LEFT SIDE, REF. PICTURE B. P.10
13	P18 TO W. INTERFACE	SIDE ELECTRICAL PANEL, LEFT SIDE, REF. PICTURE B. P.11
14	HB1/HC1 INTERFACE	SIDE ELECTRICAL PANEL, MIDDLE, REF. PICTURE B. P.11
15	HB1/HC1 INTERFACE	SIDE ELECTRICAL PANEL, MIDDLE, REF. PICTURE B. P.11
16	KNEELING HARNESS	SIDE ELECTRICAL PANEL, MIDDLE, REF. PICTURE B. P.11
17	HB1 TO HB2 BODY H.	SIDE ELECTRICAL PANEL, MIDDLE, REF. PICTURE B. P.11
18	HB1 TO LUGG. COMP. H	NO CONNECTOR USED, CIRCUIT RUNS TO LUGGAGE COMP.
19	HB2 TO HB3 INTERFAC	BEHIND PARCEL RACK LEFT REAR
20	HB3 TO HC8 INTERFAC	NO CONNECTOR USED, CIRCUIT RUNS TO HC8 HARNESS
21	HB3 TO HC8 INTERFAC	NO CONNECTOR USED, CIRCUIT RUNS TO HC8 HARNESS
22	P7 TO MARKER LIGHTS	AT THE LIGHTS
23	P8 TO MARKER LIGHTS	AT THE LIGHTS
24	P9 TO DRIVING L.	AT THE LIGHTS
25	P10 TO DRIVING L.	AT THE LIGHTS
26	P4 TO REAR ID L.	AT THE LIGHTS
27	P5 TO REAR ID L.	AT THE LIGHTS
28	P6 TO REAR ID L.	AT THE LIGHTS



WIRE LIST									
CIRC	GA	WIRE COLOR	LOCATION	START	FINISH	START	FINISH	CIRCUIT DESCRIPTION	
1003	12	OR	START	FINISH	START	FINISH	U	ALTERNATOR FIELD WIRE	
1003A	12	OR	START	FINISH	START	FINISH	U	ALT FIELD WIRE, BATT SENSE	
1003B	12	OR	START	FINISH	START	FINISH	U	ALT FIELD WIRE, BATT SENSE	
1007	14	BL	START	FINISH	START	FINISH	M	REGULATOR ION	
1111A	12	RD	START	FINISH	START	FINISH	J	ENGINE ECU POWER	
1111B	12	RD/WH	START	FINISH	START	FINISH	J	ENGINE ECU POWER	
1150A	18	OR	START	FINISH	START	FINISH	C	A/C FAN CONTROL	
1151B	18	OR	START	FINISH	START	FINISH	C	ENGINE ECU ION	
1151C	18	OR	START	FINISH	START	FINISH	C	FAN POWER	
1152	14	OR	START	FINISH	START	FINISH	V	QUICK START THERMOSTAT PWR	
1209A	12	WH	START	FINISH	START	FINISH	A	ECU GROUND	
1209B	12	WH	START	FINISH	START	FINISH	A	ECU GROUND	
1209C	12	WH	START	FINISH	START	FINISH	A	ECU GROUND	
1209D	12	WH	START	FINISH	START	FINISH	J	ECU GROUND	
1209E	12	WH	START	FINISH	START	FINISH	J	ECU GROUND	
1209F	12	WH	START	FINISH	START	FINISH	J	ECU GROUND	
1209G	12	WH	START	FINISH	START	FINISH	J	ECU GROUND	
1209H	12	WH	START	FINISH	START	FINISH	J	ECU GROUND	
1210	18	WH	START	FINISH	START	FINISH	M	LOW COOLANT GROUND	
1211	18	WH	START	FINISH	START	FINISH	M	OIL PRESSURE GROUND	
1212	18	WH	START	FINISH	START	FINISH	M	REGULATOR GROUND	
1250	18	WH	START	FINISH	START	FINISH	D	QUICK START THERMOSTAT GND	
1406	18	GY	START	FINISH	START	FINISH	C	TACHOMETER	
1410	18	LT BL/WH	START	FINISH	START	FINISH	T	OIL TEMP SENDER	
1415A	18	OR	START	FINISH	START	FINISH	T	WATER TEMP	
1415B	18	OR	START	FINISH	START	FINISH	T	WATER TEMP LGT	
1417A	18	LT BL/WH	START	FINISH	START	FINISH	T	OIL PRES SENDER	
1417B	18	LT BL	START	FINISH	START	FINISH	T	LOW OIL PSI LGT	
1419	18	LT BL/WH	START	FINISH	START	FINISH	T	SPEED SIGNTRANS TO ENG	
1420	18	WH/WH	START	FINISH	START	FINISH	C	LOW COOLANT LGT	
1424	18	YL	START	FINISH	START	FINISH	O	CRUISE ENABLE LIGHT	
1425	18	RD	START	FINISH	START	FINISH	O	ENG BKK	
1425	18	RD/WH	START	FINISH	START	FINISH	C	CHECK ENGINE LIGHT	
1427	18	RY	START	FINISH	START	FINISH	C	SERVICE ENGINE SOON LIGHT	
1428	18	YL/WH	START	FINISH	START	FINISH	K	ALX BATT SIGNAL	
1504	18	BL	START	FINISH	START	FINISH	T	CRUISE ENABLE	
1508A	18	LT BL/WH	START	FINISH	START	FINISH	C	RESUME ACCEL	
1508B	18	YL/WH	START	FINISH	START	FINISH	C	CRUISE SET	
1511	18	YL	START	FINISH	START	FINISH	C	STOP ON CRUISE OVERRIDE	
1513A	18	BN/WH	START	FINISH	START	FINISH	C	DIAGNOSTIC REQUEST/REQ	
1514A	18	RD/WH	START	FINISH	START	FINISH	C	THROTTLE POSITION SENSOR	
1514B	18	OR	START	FINISH	START	FINISH	C	THROTTLE POSITION SENSOR	
1514C	18	OR	START	FINISH	START	FINISH	C	THROTTLE POSITION SENSOR	
1515A	18	RY	START	FINISH	START	FINISH	C	PARKING BRAKE INTUX	
1515B	18	OR	START	FINISH	START	FINISH	C	FAN OVERRIDE	
1517A	18	LT BL/WH	START	FINISH	START	FINISH	C	ENGINE BRAKE CONTROL	
1517B	18	WH/WH	START	FINISH	START	FINISH	C	ENGINE BRAKE CONTROL	
1520	18	OR	START	FINISH	START	FINISH	H	LOW COOLANT SENSOR	
1501A	18	OR	START	FINISH	START	FINISH	C	DATA LINK -	
1501B	18	OR	START	FINISH	START	FINISH	C	DATA LINK -	
1701	18	LT WH	START	FINISH	START	FINISH	C	ABS	
2002	18	OR	START	FINISH	START	FINISH	O	FAN POWER CONTROL SIGNAL	
2004	14	OR	START	FINISH	START	FINISH	O	QUICK START THERMOSTAT	
2301A	18	OR	START	FINISH	START	FINISH	T	A/C COMPRESSOR	
2301B	18	OR	START	FINISH	START	FINISH	T	A/C COMPRESSOR	

-- LOOSE PIECE LOCATION

SEALED SPLICE 1
1209A-F 1210-S
1209D-S

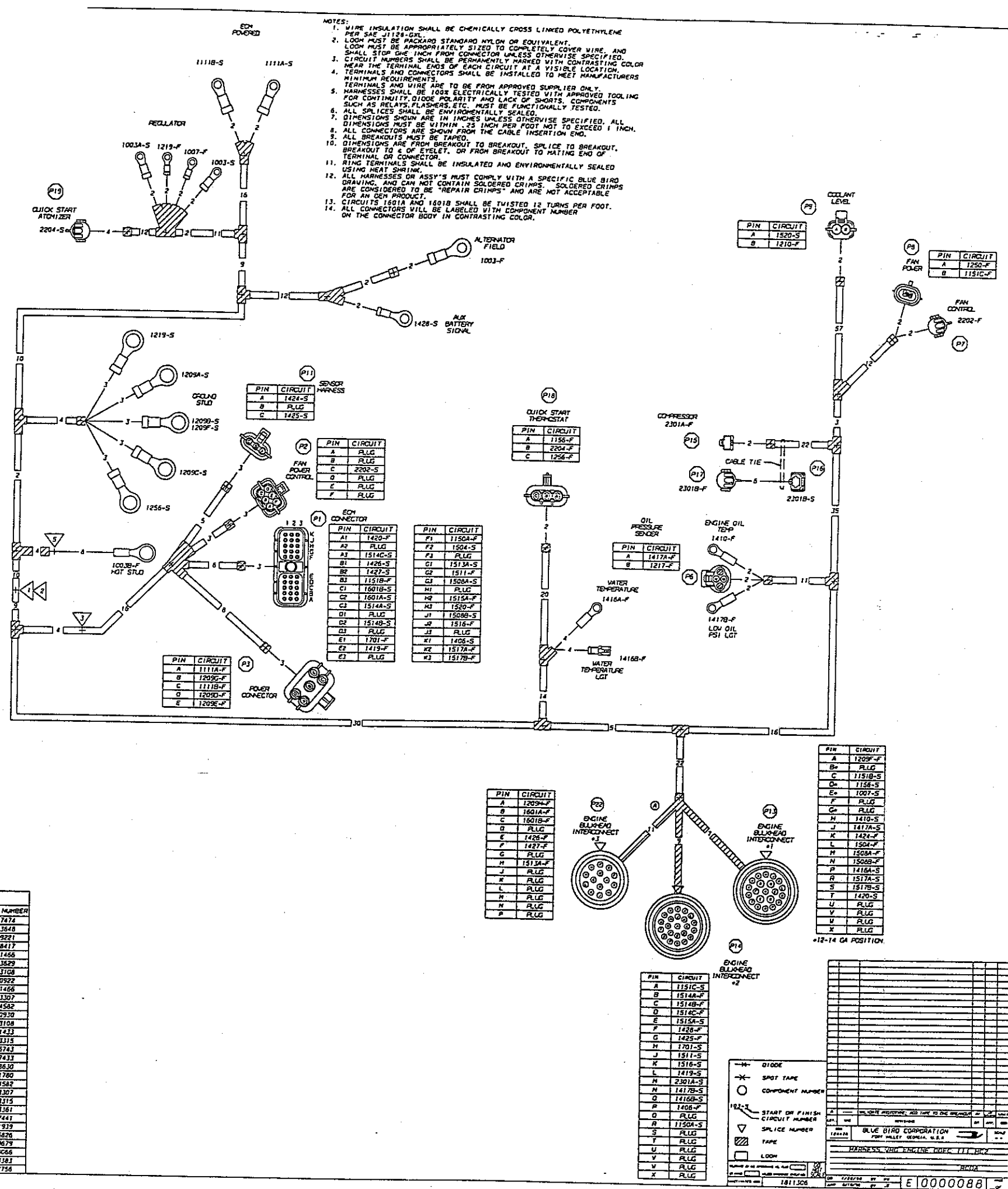
SEALED SPLICE 2
1209B-F 1209E-S
1209F-S

SEALED SPLICE 3
1209C-F 1209G-S
1217-S 1250-S

SEALED SPLICE 4
1003A-F 1003B-S

COMPONENT LIST		
COMP	DESCRIPTION	PART NUMBER
P1	CONN. 30 CIRC. F. 1505	1298603
	PLUG, SEAL, ING. 1505	1299239
P2	CONN. 5 CIRC. 1505	1903137
	PLUG, CAVITY, 1 WAY, 1505	1793132
	LOCK, SEAL, SEED, 1C, 1505	1811983
P3	CONN. 5 CIRC. F. 2805	1903133
	LOCK, SEAL, SEED, 1C, 2805	1829316
P4	CONN. 2 CIRC. F. 1505, ON	1829319
	LOCK, SEAL, SEED, 1C, 1505	1811983
P5	CONN. 1 CIRC. 9-ROD, W/P	1154558
P6	CONN. 2 CIRC. H. 1505	1877239
	LOCK, SEAL, SEED, 1C, 1505	1781400
P7	CONN. 2 CIRC. F. 2805	1829316
	LOCK, SEAL, SEED, 1C, 2805	1811983
P8	CONN. 3 CIRC. H. 1505	1903145
	LOCK, SEAL, SEED, 1C, 1505	1781400
P9	CONN. 2 CIRC. F. 2805	1829316
	LOCK, SEAL, SEED, 1C, 2805	1811983
P10	CONN. 1 CIRC. 9-ROD, W/P	1154558
P11	CONN. 3 CIRC. H. 1505	1903145
	LOCK, SEAL, SEED, 1C, 1505	1781400
P12	CONN. 2 CIRC. F. 2805	1829316
	LOCK, SEAL, SEED, 1C, 2805	1811983
P13	CONN. 1 CIRC. 9-ROD, W/P	1154558
P14	CONN. 3 CIRC. H. 1505	1903145
	LOCK, SEAL, SEED, 1C, 1505	1781400
P15	CONN. 2 CIRC. F. 2805	1829316
	LOCK, SEAL, SEED, 1C, 2805	1811983
P16	CONN. 1 CIRC. 9-ROD, W/P	1154558
P17	CONN. 3 CIRC. H. 1505	1903145
	LOCK, SEAL, SEED, 1C, 1505	1781400
P18	CONN. 2 CIRC. F. 2805	1829316
	LOCK, SEAL, SEED, 1C, 2805	1811983
P19	CONN. 1 CIRC. 9-ROD, W/P	1154558
P20	CONN. 3 CIRC. H. 1505	1903145
	LOCK, SEAL, SEED, 1C, 1505	1781400

TERMINAL LIST		
TERM	DESCRIPTION	PART NUMBER
A	TERM. EYELET, 3/8, 10-12 GA, INS	2007474
B	TERM. EYELET, #10, 18-20 GA, INS	1353646
C	TERM. PIN, 16-18 GA, 150 S	1299221
D	TERM. PIN, 16-18 GA, 150 S	1828417
E	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
F	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1813629
G	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1813629
H	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
I	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
J	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
K	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
L	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
M	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
N	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
O	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
P	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
Q	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
R	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
S	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
T	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
U	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
V	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
W	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
X	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466
Y	SEAL, WIRE, OR, DIA. 0.080, 112, RD	1481466

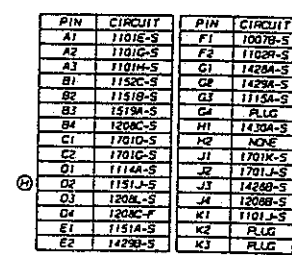


•• LOOSE PIECE LOCATION

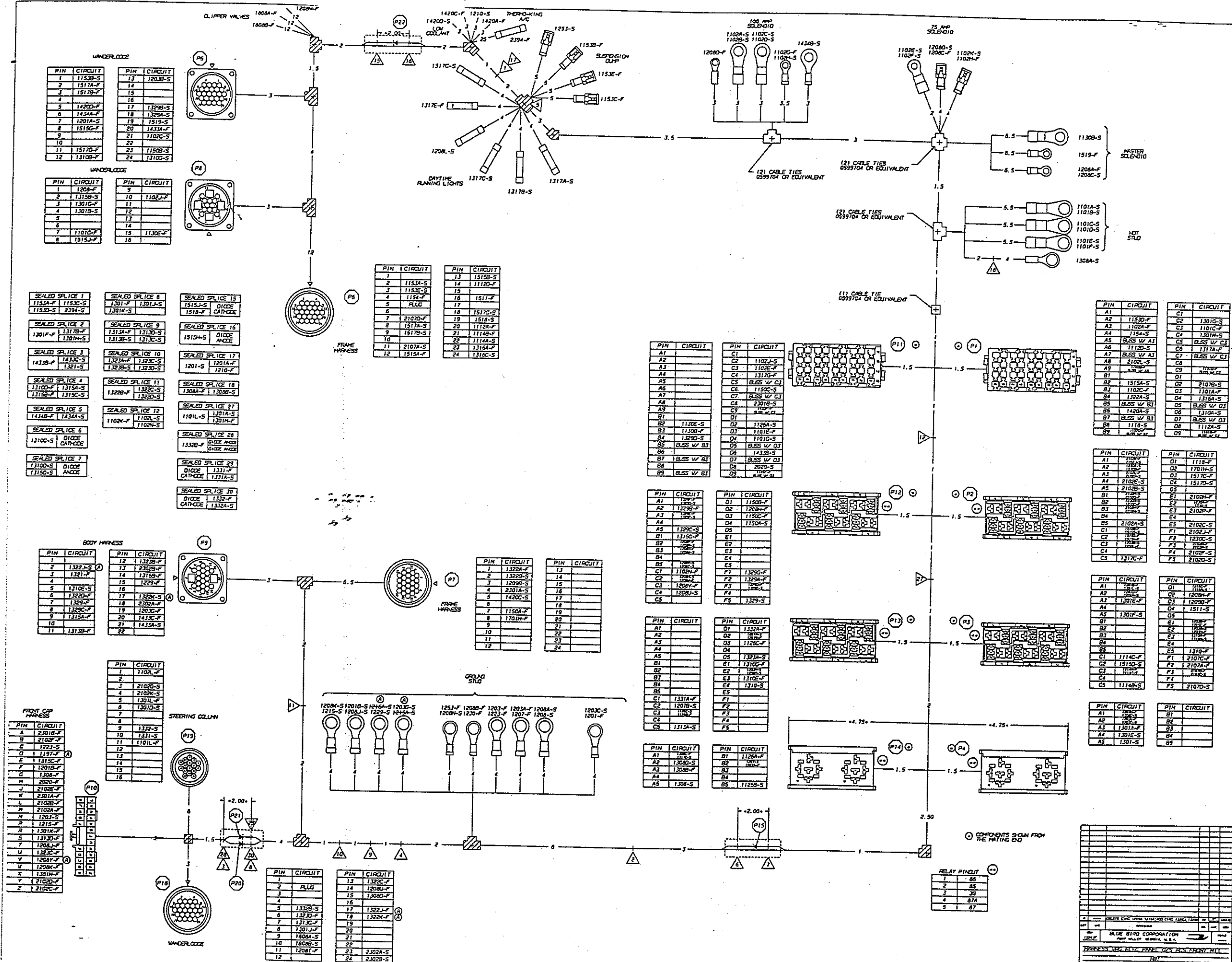
SEALED SPlice 1:		SEALED SPlice 2:		SEALED SPlice 3:	
1102P-S	1102T-F	1114A-F	DIODE CATHODE	1114C-S	DIODE ANODE
1429B-F					

NOTES:

- (1) WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE PER SAE J1128-CXL.
- (2) WIRE MUST BE BACKDRO STANDARD POLYETHYLENE OR EQUIVALENT.
- (3) WIRE MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND SHALL STOP ONE INCH FROM CONNECTOR.
- (4) ALL WIRE MUST BE IDENTIFIED BY COLOR AND NUMBERING SYSTEM. WIRE NEAR THE TERMINAL SHALL BE PERMANENTLY MARKED WITH CONTRASTING COLOR.
- (5) TERMINALS AND CONNECTORS SHALL BE INSTALLED AT A VISIBLE LOCATION, IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION REQUIREMENTS.
- (6) TERMINALS AND CONNECTORS MUST BE OF THE TYPE RECOMMENDED BY THE MANUFACTURERS.
- (7) HARNESS SHALL BE 100% ELECTRICAL TESTED FOR CONTINUITY, TESTED FOR POLARITY AND LACK OF SHORTS, TESTED FOR RESISTANCE, CAPACITANCE, ETC. SHALL BE FUNCTIONALLY TESTED.
- (8) ALL SPLICES SHALL BE ENVIRONMENTALLY SEALED.
- (9) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS MUST BE WITHIN TOLERANCES.
- (10) ALL CONNECTORS ARE SHOWN IN 23 INCH PER FOOT NOT TO EXCEED 1 INCH. ALL BREAKOUTS MUST BE TAPEO.
- (11) DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE TO BREAKOUT, TERMINAL OR CONNECTOR.
- (12) ALL TERMINALS AND CONNECTORS MUST BE INSULATED AND ENVIRONMENTALLY SEALED USING HEAT SHRINK.
- (13) ALL HARNESS OR ASST'S MUST COMPLY WITH A SPECIFIC BLUE BIRD ORANGE AND RED BIRD ORANGE. HARNESS MUST CONTAIN SOLDERED GRIMPS. SOLDERED GRIMPS ARE CONSIDERED TO BE "REPAIR GRIMPS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.



<input checked="" type="checkbox"/> OIOOE	APPROVAL:	121100Z	121100Z
<input checked="" type="checkbox"/> SPOT TAPE	FLAT FILE:	121100Z	121100Z
<input checked="" type="checkbox"/> COMPONENT NUMBER		121100Z	121100Z
<input checked="" type="checkbox"/> START OR FINISH		121100Z	121100Z
<input checked="" type="checkbox"/> CIRCUIT NUMBER		121100Z	121100Z
<input checked="" type="checkbox"/> SPLICE NUMBER		121100Z	121100Z
<input checked="" type="checkbox"/> TAPE		121100Z	121100Z
<input checked="" type="checkbox"/> LOGS		121100Z	121100Z



WIRE LIST									
CIRC	GA	WIRE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION		
			START	FINISH	START	FINISH			
1101A	12	NO FUSIBLE LINK	..	P1	XX	JOH WTR10E	EE	BATTERY BUSS POWER	
1101B	12	NO FUSIBLE LINK	..	P1	JOH WTR10E	BLK WTR10E	..	BATTERY BUSS POWER	
1101C	12	NO FUSIBLE LINK	..	P1	XX	JOH WTR10E	BLK WTR10E	BATTERY BUSS POWER	
1101E	12	NO FUSIBLE LINK	..	P1	JOH WTR10E	BLK WTR10E	..	BATTERY BUSS POWER	
1101F	12	NO FUSIBLE LINK	..	P11	XX	JOH WTR10E	EE	BATTERY BUSS POWER	
1101G	12	OK	..	P8	..	JOH WTR10E	BLK WTR10E	BATTERY BUSS POWER	
1101L	18	RO	SPRICE 27	P19	..	N	AA	CONSTANT FUSED FEED	
1102A	12	NO FUSIBLE LINK	..	P1	A	JOH WTR10E	..	OPTICAL HORN PUR	
1102B	12	NO FUSIBLE LINK	..	P1	JOH WTR10E	EE	100A SOLENOID PUR	..	
1102C	12	NO FUSIBLE LINK	..	P1	A	JOH WTR10E	EE	100A SOLENOID PUR	
1102D	12	NO FUSIBLE LINK	..	P1	JOH WTR10E	BLK WTR10E	..	100A SOLENOID PUR	
1102E	12	NO FUSIBLE LINK	..	P11	Y	JOH WTR10E	EE	75A SOLENOID PUR	
1102F	12	NO FUSIBLE LINK	..	P11	JOH WTR10E	BLK WTR10E	..	75A SOLENOID PUR	
1102G	16	OK	P8	..	..	G	U	IGN CTRL
1102H	16	OK	..	..	..	JOH WTR10E	..	IGN CTRL
1102J	12	OK	P11	P8	..	N	AA	IGN FUSED FEED	
1102K	16	OK	..	SPRICE 12	..	JOH WTR10E	..	IGN CTRL	
1102L	16	PK	SPRICE 12	P19	..	..	D	SIR COIL PUR
1102N	16	PK	SPRICE 12	P12	..	..	E	MOLT VON CTRL
1112A	18	RO	P1	P6	..	C	O	VIN BATTERY POWER	
1112B	18	PK	P1	P5	..	C	O	VIN IGN	
1112A	16	PU	P5	P3	..	F	JOH WTR10E	STARTER SWITCH SIGNAL	
1112C	16	PU	P3	P3	..	F	O	STARTER SWITCH	
1112D	16	PU	P3	P3	..	JOH WTR10E	E	STARTER SWITCH	
1112E	18	OK	P1	P2	..	C	E	ENGINE BRAKE CONTRL FEED	
1125A	14	OK	P11	P14	..	N	E	IGN FLASHER	
1125B	14	OK	P14	P13	..	P	L	JOH WTR10E	
1125C	14	OK	P13	P13	..	JOH WTR10E	..	IGN POWER	
1130B	12	NO FUSIBLE LINK	..	P11	S	EE	MASTERED SOLENOID PUR	..	
1130E	12	OK	P11	P8	..	N	AA	MASTERED FUSED FEED	
1150A	18	LT ON	P12	P7	..	E	O	FAN OFF SIGNAL	
1150B	18	LT ON	P5	P12	..	G	E	A/C ON SIGNAL	
1150C	18	PK	P11	P12	..	C	M	FAN CONTRL FEED	
1153A	18	PK	P6	SPRICE 1	..	C	M	FAN CONTRL FEED	
1153B	18	PK	P5	..	..	C	M	SLEP PRESS SUPPLY
1153C	18	PK	SPRICE 1	..	..	V	U	SLEP PRESS LAMP
1153D	18	PK	SPRICE 1	P1	..	..	V	SLEP PRESS PUR
1153E	18	BLNDR	P6	..	..	O	U	SLEP PRESS SUP RETURN
1154	18	..	P1	P6	..	C	D	AIR DRYER POWER	
1201	16	WH	SPRICE 17	..	..	JOH WTR10E	..	GRD
1201A	16	WH	..	SPRICE 17	..	..	JOH WTR10E	GRD
1201B	18	WH	..	P10	..	..	..	INSTRUMENT GRD, VOLTMETER
1203	14	WH	P10	..	..	..	..	WAG ILLUM GRD
1203A	18	WH	P3	..	..	..	..	MOLT GRD
1203B	18	WH	P5	P3	..	G	JOH WTR10E	CLEARANCE LIGHTS GRD	
1203C	18	WH	..	P4	..	..	..	CLEARANCE LIGHTS RETURN
1203D	18	WH	..	P4	..	..	..	MOLT GRD
1203E	14	WH	..	P3	..	..	..	MOLT GRD
1203H	18	WH	P13	P1	(A)	JJ	G	CLEARANCE LIGHT GRD	
1207	14	WH	P14	..	JOH WTR10E	..	..	GRD
1207A	18	WH	P13	P14	JOH WTR10E	JOH WTR10E	..	DIR GROUND	
1207B	18	WH	P13	P13	JOH WTR10E	JOH WTR10E	..	DIR GROUND	
1208	12	WH	..	P8	..	..	AA	DIR GROUND
1208A	18	WH	..	..	..	..	..	..
1208B	18	WH	..	..	..	..	..	..
1208C	18	WH	P2	..	..	..	..	..
1208D	18	WH	..	..	..	..	..	..
1208E	18	WH	..	..	..	..	..	..
1208F	18	WH	P12	P12	..	..	CC	IGN SOLENOID GRD
1209AJ	12	WH	..	P10	..	..	E	COOLANT FAN GRD
1209K	12	WH	..	P10	..	..	J	WAG GRD
1209L	18	WH	..	P2	..	..	..	..
1209M	18	WH	P3	P3	..	..	..	..
1209N	18	WH	..	..	..	..	..	..
1209P	18	WH	..	..	..	..	..	..
1209R	18	WH	P12	P12	..	..	..	..
1209T	18	WH	P12	P12	..	..	..	..
1209U	18	WH	P12	P12	..	..	..	..
1209V	18	WH	P12	P12	..	..	..	..
1209W	18	WH	P12	P12	..	..	..	..
1209X	18	WH	P12	P12	..	..	..	..
1209Y	18	WH	P12	P12	..	..	..	..
1209Z	18	WH	P12	P12	..	..	..	..
1210	18	WH	..	..	..	..	..	..
1215	16	WH	..	..	..	..	..	..
1215A	16	WH	..	..	..	..	..	..
1215B	16	WH	..	..	..	..	..	..
1215C	16	WH	..	..	..	..	..	..
1215D	16	WH	..	..	..	..	..	..
1215E	16	WH	..	..	..	..	..	..
1215F	16	WH	..	..	..	..	..	..
1215G	16	WH	..	..	..	..	..	..
1215H	16	WH	..	..	..	..	..	..
1215I	16	WH	..	..	..	..	..	..
1215J	16	WH	..	..	..	..	..	..
1215K	16	WH	..	..	..	..	..	..
1215L	16	WH	..	..	..	..	..	..
1215M	16	WH	..	..	..	..	..	..
1215N	16	WH	..	..	..	..	..	..
1215O	16	WH	..	..	..	..	..	..
1215P	16	WH	..	..	..	..	..	..
1215Q	16	WH	..	..	..	..	..	..
1215R	16	WH	..	..	..	..	..	..
1215S	16	WH	..	..	..	..	..	..
1215T	16	WH	..	..	..	..	..	..
1215U	16	WH	..	..	..	..	..	..
1215V	16	WH	..	..	..	..	..	..
1215W	16	WH	..	..	..	..	..	..
1215X	16	WH	..	..	..	..	..	..
1215Y	16	WH	..	..	..	..	..	..
1215Z	16	WH	..	..	..	..	..	..
1216	18	WH	..	..	..	..	..	..
1216A	18	WH	..	..	..	..	..	..
1216B	18	WH	..	..	..	..	..	..
1216C	18	WH	..	..	..	..	..	..
1216D	18	WH	..	..	..	..	..	..
1216E	18	WH	..	..	..	..	..	..
1216F	18	WH	..	..	..	..	..	..
1216G	18	WH	..	..	..	..	..	..
1216H	18	WH	..	..	..	..	..	..
1216I	18	WH	..	..	..	..	..	..
1216J	18	WH	..	..	..	..	..	..
1216K	18	WH	..	..	..	..	..	..
1216L	18	WH	..	..	..	..	..	..
1216M	18	WH	..	..	..	..	..	..
1216N	18	WH	..	..	..	..	..	..
1216O	18	WH	..	..	..	..	..	..
1216P	18	WH	..	..	..	..	..	..
1216Q	18	WH	..	..	..	..	..	..
1216R	18	WH	..	..	..	..	..	..
1216S	18	WH	..	..	..	..	..	..
1216T	18	WH	..	..	..	..	..	..
1216U	18	WH	..	..	..	..	..	..
1216V	18	WH	..	..	..	..	..	..
1216W	18	WH	..	..	..	..	..	..
1216X	18	WH	..	..	..	..	..	..
1216Y	18	WH	..	..	..	..	..	..
1216Z	18	WH	..	..	..	..	..	..
1217	18	WH	..	..	..	..	..	..
1217A	18	WH	..	..	..	..	..	..
1217B	18	WH	..	..	..	..	..	..
1217C	18	WH	..	..	..	..	..	..
1217D	18	WH	..	..	..	..	..	..
1217E	18	WH	..	..	..	..	..	..
1217F	18	WH	..	..	..	..	..	..
1217G	18	WH	..	..	..	..	..	..
1217H	18	WH	..	..	..	..	..	..
1217I	18	WH	..	..	..	..	..	..
1217J	18	WH	..	..	..	..	..	..
1217K	18	WH	..	..	..	..	..	..
1217L	18	WH	..	..	..	..	..	..
1217M	18	WH	..	..	..	..	..	..
1217N	18	WH	..	..	..	..	..	..
1217O	18	WH	..	..	..	..	..	..
1217P	18	WH	..	..	..	..	..	..
1217Q	18	WH	..	..	..	..	..	..
1217R	18	WH	..	..	..	..	..	..
1217S	18	WH	..	..	..	..	..	..
1217T	18	WH	
1217U	18	WH	
1217V	18	WH	
1217W	18	WH	
1217X	18	WH	
1217Y	18	WH	
1217Z	18	WH	
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1218A	18	WH	
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1218C	18	WH	
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1218E	18	WH	
1218F	18	WH	
1218G	18	WH	
1218H	18	WH	
1218I	18	WH	
1218J	18	WH	
1218K	18	WH	
1218L	18	WH	..	..	..	..	..	..
1218M	18	WH	..	..	..	..	..	..
1218N	18	WH	..	..	..	..	..	..
1218O	18	WH	..	..	..	..	..	..
1218P	18	WH	..	..	..	..	..	..
1218Q	18	WH	..	..	..	..	..	..
1218R	18	WH	..	..	..	..	..	..
1218S	18	WH	..	..	..	..	..	..
1218T	18	WH	..	..	..	..	..	..
1218U	18	WH	..	..	..	..	..	..
1218V	18	WH	..	..	..	..	..	..
1218W	18	WH	..	..	..	..	..	..
1218X	18	WH	..	..	..	..	..	..
1218Y	18	WH	..	..	..	..	..	..
1218Z	18	WH	..	..	..	..	..	..
1219	18	WH	..	..	..	..	..	..
1219A	18	WH	..	..	..	..	..	..
1219B	18	WH	..	..	..	..	..	..
1219C	18	WH	..	..	..	..	..	..
1219D	18	WH	..	..	..	..	..	..
1219E</									

WIRE LIST									
CIRC	CA	WIRE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION		
			START	FINISH	START	FINISH			
1230C	18	WH	P2	P2	E	JOHN WY1800			W/VEPER ODO
1253	18	WH	--	--	V	JOHN WY1800			SUSPENSION OLMF ODO
1301A	14	DK OX/BLK	P4	SP1C 8	P	--			H1 BEAM PUR
1301B	18	DK OX/BLK	SP1C 27	P1	--	P			HEADLIGHT PUR
1301B	18	DK OX/BLK	P19	P4	G	M JOHN WY1800			HEADLIGHT LOAM CTRL
1301E	14	DK OX/BLK	P4	P3	D	JOHN WY1800			H1 BEAM CTRL
1301F	14	DK OX/BLK	P3	SP1C 2	F	--			HEADLIGHT PUR
1301G	16	DK OX/BLK	P1	P8	C	--			HEADLIGHT, LO BEAM
1301H	14	DK OX/BLK	SP1C 2	P10	--	J			LO BEAM
1301I	18	DK OX/BLK	P4	SP1C 8	P10	--	J		H1 BEAM PUR
1301H	14	DK OX/BLK	P1	SP1C 27	N	JOHN WY1800			HEAD LIGHT ON
1308	14	GN	P14	P10	P	--			HEADLIGHT PUR
1308A	18	RD FLUOR/LINE	--	SP1C 18	GG	--	J		DRY LGT PUR
1308B	14	BK	SP1C 18	P14	--	P			DRY LGT FEED
1308C	18	BK	P4	P14	(P JOHN WY1800)				DRY LGT CTRL
1310	18	DK OX/BLK	P14	P18	NN	D			DRY LIGHT CTRL
1310A	14	DK OX/BLK	P1	P3	E	F			CLEARANCE LIGHT
1310B	14	DK OX/BLK	P3	P8	N	L JOHN WY1800			CLEARANCE LIGHT
1310C	18	DK OX/BLK	SP1C 8	P3	--	G			CLEARANCE LIGHTS
1310D	18	GN	SP1C 7	SP1C 4	--	M JOHN WY1800			CLEARANCE LIGHT CTRL
1310E	18	DK OX/BLK	P9	P13	G	--	F		CLEARANCE LIGHT
1310F	18	DK OX/BLK	P5	P13	G	E			CLEARANCE LIGHT POWER
1313A	14	YL	P13	SP1C 9	F	--	LN		DIR
1313B	14	YL	SP1C 9	P18	--	G			LM RR DIR
1313C	18	YL	SP1C 9	P18	--	D			LM DIR IND
1315A	16	BN	SP1C 4	P9	--	V			LM FRT DIR
1315B	18	BN	P8	SP1C 4	G	--	G		TAIL LIGHTS
1315C	18	BN	SP1C 4	P10	--	V			MYNC ILLUMINATION
1315G	18	BN	SP1C 7	P12	--	E			TAIL LGT CTRL
1315H	18	GN	P1	P5	C	D			STOP LIGHT PUR
1315I	18	GN	P3	P8	(M JOHN WY1800)		G		STOP LIGHT PUR
1317A	16	RD	--	P1	CO	JOHN WY1800			ORL ODS, POWER
1317B	16	WH	--	SP1C 2	CO	--	C		ORL LOW BEAM
1317C	16	YL	--	P2	CO	F			ORL PARK BRAKE SIGNAL
1317E	18	GN	P14	--	(P JOHN WY1800)		LL		LM BEAM SENSE (LX)
1317G	16	BL	--	P11	CO	--	G		DR, IGNITION PUR
1321	16	GN	SP1C 3	P9	--	C			ENG COMPARTMENT LGTS POW
1322A	16	YL	P7	SP1C 11	C	D			BACK-UP PUR
1322C	16	YL	SP1C 11	P18	--	D			BACK-UP PUR
1322J	14	LT BL	P9	P18	--	G			BACK-UP PUR
1322K	14	LT BL	P3	P18	--	G			BACK-UP PUR
1322L	14	DK OX	SP1C 18	P10	F	--	R		REAR DRY LGT ON/L
1322M	14	DK OX	SP1C 10	P18	F	--	R		BUV ALARM ON/L
1323C	16	DK OX	SP1C 10	P18	--	V			RM DIR
1323D	18	DK OX	SP1C 10	P18	--	V			RM FRT DIR
1329	16	GN	P12	P9	F	--	N	L JOHN WY1800	RIGHT LANDING LIGHT
1329A	18	GN	P5	P12	G	E			RIGHT LANDING LIGHT
1329B	18	GN	P5	P12	G	E			RIGHT LANDING LIGHT
1329C	18	GN	P12	P9	F	--	N	L JOHN WY1800	LEFT LANDING LIGHT
1329D	18	GN	P12	P9	F	--	N	L JOHN WY1800	LEFT LANDING LIGHT
1329E	18	GN	P12	P12	G	E			LEFT LANDING LIGHT
1329F	18	GN	P12	P12	G	E			LEFT LANDING LIGHT
1329G	18	GN	P12	P12	G	E			LEFT LANDING LIGHT
1331	18	YL/BLK	P19	SP1C 29	D	--	E		LM DIR CTRL
1331A	18	YL/BLK	SP1C 29	P13	--	E			LM DIR CTRL
1331B	18	DK OX/BLK	P19	SP1C 30	D	--	E		LM DIR CTRL
1332A	18	DK OX/BLK	SP1C 30	P13	--	E			LM DIR CTRL
1332B	18	DK OX/BLK	P19	SP1C 28	D	--	E		LM DIR CTRL
1400A	18	LT BL	P1	NONE	C	--			HAZARD INPUT
1400C	18	LT BL	P7	NONE	C	--			LOV COOLANT MIDDLE, POWER
1400D	18	LT BL	NONE	P5	--	G			LOV COOLANT SENSE
1403A	16	RD	P9	P5	G	--	G		HEAT SENSOR SIGNAL
1403B	16	RD	P11	SP1C 3	C	--	G		ENG COMPARTMENT POWER
1403C	16	RD	SP1C 3	P9	--	G			HEAT SENSOR POWER
1403D	16	RD	SP1C 5	P9	--	G			VOLTPETER POWER
1403E	18	RD FLUOR/LINE	--	SP1C 5	GG	--	G		VOLTPETER POWER
1511	18	YL	P3	P6	E	D			STOP SURVIVANCE OVERRIDE
1515A	18	PURK	P1	P3	C	D			PARK BRAKE SUPPLY
1515B	18	WV/BLK	P6	P2	D	M JOHN WY1800			+ PARK BRAKE
1515C	18	WV/BLK	P3	P2	E	M JOHN WY1800			NEUTRAL SIGNAL
1515D	18	WV/BLK	P3	P2	E	M JOHN WY1800			NEUTRAL SIGNAL
1515E	18	WV/BLK	SP1C 18	P2	--	G			PARKING BRAKE SIGNAL
1515J	18	WV/BLK	SP1C 15	P2	--	G			NEUTRAL SIGNAL
1517A	18	LT BL/BLK	P6	P6	D	G			NEUTRAL SIGNAL
1517B	18	WV/BLK	P6	P6	D	G			ENG BRAKE SEL, 1
1517C	18	LT BL	P6	P2	D	G			ENG BRAKE SEL, 2
1517D	18	LT BL	P6	P2	D	G			ENG BRAKE CTRL
1517E	18	LT BL	P2	P6	D	G			ENG BRAKE CTRL

WIPE LIST									
CIRC	GA	WIPE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION		
			START	FINISH	START	FINISH			
1518	18	YL	P6	SPICE 15	D	---	NEUTRAL SIGNAL		
1519	14	RD	P5	**	G	U	MASERED SOLENOID ONT		
1701H	18	GY	P2	P7	E	D	MASERED SOLENOID		
1805A	18	RD	P18	**	D	NONE	SUSPENSION CLAMP		
1806J	18	BL	P18	**	D	NONE	SUSPENSION CLAMP		
2020	12	BN	P11	P10	N	J	STEPWELL POWER		
2102A	16	BN	P2	P10	F	V	LH WIPER, HI		
2102B	16	BN	P2	P10	F	V	LH WIPER, LO		
2102C	16	BN	P2	P10	F	V	RH WIPER, HI		
2102D	16	BN	P2	P10	F	V	RH WIPER, LO		
2102E	16	BN	P2	P10	E	V	LH WIPER, PARK		
2102F	16	BN	P2	P10	E	V	RH WIPER, PARK		
2102G	18	BN	P19	P2	D	H	WIPER HI		
2102H	18	BN	P2	P2	J	W	WIPER HI		
2102J	18	BN	P2	P2	H	W	WIPER LO		
2102K	14	BN	P19	P2	D	J	WIPER LO		
2102L	14	BN	P1	P2	N	L	WIPER POWER		
2102M	16	BN	P2	P2	J	W	WIPER POWER		
2102N	16	BN	P2	P2	J	W	WIPER POWER		
2102P	16	BN	P2	P2	J	W	WIPER POWER		
2102Q	18	LT GN	P6	P1	D	W	WIPER POWER		
2107B	16	LT GN	P1	P3	C	W	HORN ACTIVATION SIGNAL		
2107C	18	RD	P3	P3	F	W	HORN POWER		
2107D	16	LT GN	P3	P6	F	D	HORN RELAY COIL (POWER)		
2107A	16	GN	P7	P10	D	V	HORN SWITCHED POWER		
2301B	12	YL	P11	P10	N	J	HWAC POWER		
2302A	16	RGK	P18	P9	D	G	ROOF MATCH BLUZZER ORD		
2302B	16	BN	P18	P9	D	G	ROOF MATCH FAN PLUS		
2394	18	PK	SPICE 1	**	---	LL	THERMO-KING AC CTR.		

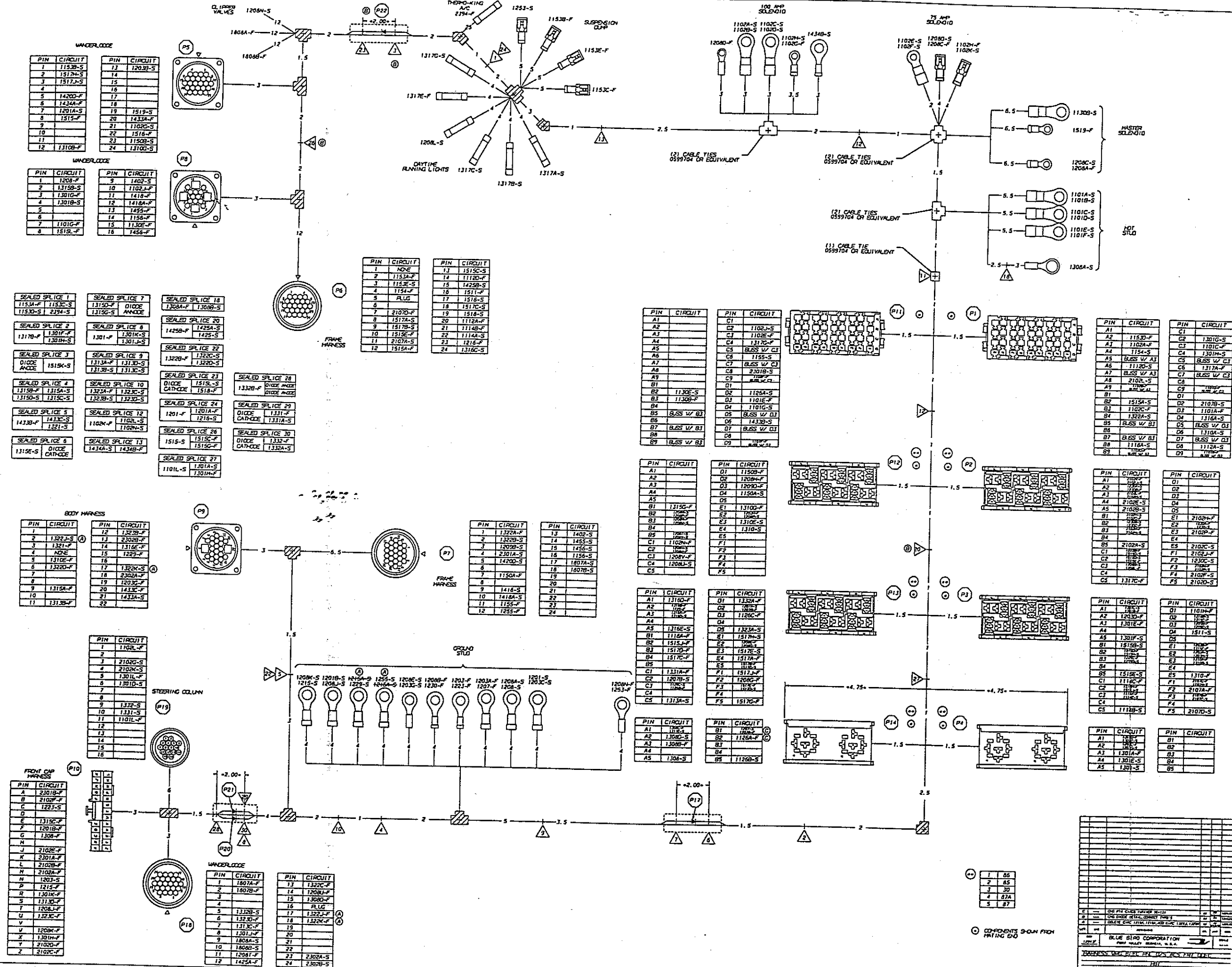
•• LOOSE PIECE LOCATION

COMPONENT LIST		
COMP	DESCRIPTION	PART NUMBER
P1	FUSE BLOCK, 16 VAY, MINI FUSE	1950691
	LOCK, SECONDARY, 16 VAY, MINI FUSE BLOCK	1950609
P2	RELAY BLOCK, 6 POSITION, MICRO	1746411
	LOCK, SECONDARY, 6 POSITION, MICRO RLY BLOCK	1950617
P3	RELAY BLOCK, 6 POSITION, MICRO	1746411
	LOCK, SECONDARY, 6 POSITION, MICRO RLY BLOCK	1950617
P4	RELAY BLOCK, MINI	1754316
	LOCK, SECONDARY, 5 CIRC, 630 SERIES, AMP	1703131
P5	CONNECTOR, 24 CIRC, CAP, CPC, SERIES 1, AMP	1077619
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	2264349
P6	CONNECTOR, 24 CIRC, PLUG, CPC, SERIES 1, AMP	1077627
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	2264349
	PLUG, KEYING, METRIMATE, AMP	1564152
P7	CONNECTOR, 24 CIRC, PLUG, CPC, SERIES 1, AMP	1077627
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	2264349
P8	CONNECTOR, 15 CIRC, CAP, CPC, SERIES 4, AMP	1077452
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	2264349
P9	CONNECTOR, 22 CIRC, CAP, CPC, SERIES 4, AMP	1078211
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	2264349
P10	CONNECTOR, 23 CIRC, P, ACT, 280 SERIES, AMP	1832948
P11	FUSE BLOCK, 16 VAY, MINI FUSE	1950691
	LOCK, SECONDARY, 16 VAY, MINI FUSE BLOCK	1950609
P12	RELAY BLOCK, 6 POSITION, MICRO	1746411
	LOCK, SECONDARY, 6 POSITION, MICRO RLY BLOCK	1950617
P13	RELAY BLOCK, 6 POSITION, MICRO	1746411
	LOCK, SECONDARY, 6 POSITION, MICRO RLY BLOCK	1950617
P14	RELAY BLOCK, MINI	1754316
	LOCK, SECONDARY, 5 CIRC, 630 SERIES, AMP	1703131
P15	DIODE, RECTIFIER INS400	1202977
	CONNECTOR, 24 CIRC, PLUG, CPC, SERIES 1, AMP	1077627
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	2264349
	PLUG, KEYING, METRIMATE, AMP	1564152
P16	CONNECTOR, 16 CIRC, PLUG, CPC, SERIES 1, AMP	1894022
	CLAMP, STRAIN RELIEF, WVO SEAL, CPC, AMP	1692430
P17	DIODE, RECTIFIER INS400	1202977
P18	DIODE, RECTIFIER INS400	1202977
P19	DIODE, RECTIFIER INS400	1202977
P20	DIODE, RECTIFIER INS400	1202977
P21	DIODE, RECTIFIER INS400	1202977
P22	DIODE, RECTIFIER INS400	1202977

TERMINAL LIST		
TERM	DESCRIPTION	PART NUMBER
A	TERMINAL, EYELET, 5/16, 8 GA, INSULATED	04109136
B	TERMINAL, SOC, 10 GA, 280 SER, BLESS BAR, MTR-PAK	19507122
C	TERMINAL, SOC, 16-18 GA, 280S, BLESS BAR, MTR-PAK	19524115
D	TERMINAL, SOC, 14-18 GA, OPC	10774718
E	TERMINAL, F, 16-18 GA, 480 SERIES, METRI-PAK	19507116
F	TERMINAL, PIN, 14-18 GA, 630 GA, METRI-PAK	19471100
G	TERMINAL, PIN, 14-18 GA, 630 SER, 1, AMP, LS PC	10774466
H	TERMINAL, F, 12-15-18 GA, 280 SER, METRI-PAK	19507108
J	TERMINAL, SOC, 12-14 GA, 280 SER, METRI-PAK	18131551
L	TERMINAL, 12114-GR 10-12 GA 330S, METRI-PAK	19558663
M	TERMINAL, F, 18-20 GA, 630 SERIES, METRI-PAK	19506133
N	TERMINAL, F, 12-14 GA, 280 SER, BLESS BAR, NVP	19507124
P	TERMINAL, F, 14-16 GA, 630 SERIES, NVP	17003154
R	TERMINAL, F, 10-12 GA, 630 SER, NVP	17033162
S	TERMINAL, EYELET, 5/16, 10-12 GA, INSULATED	09849555
U	TERMINAL, EYELET, 10-14, 18-16 GA, INSL	20074733
V	TERMINAL, SOC, 16-18 GA, 280 SERIES, MTP	18131478
Y	TERMINAL, SLIDE, 1/4, 18-20 GA, FULLY INSL	15886007
Z	TERMINAL, EYELET, NO 10, 6 GA, INSL	04109444
AA	TERMINAL, PIN, 12-16 GA, OPC, SERIES 3, AMP	18131621
BB	TERMINAL, EYELET, 5/16, 22-19 GA, INSULATED	15174820
CC	TERMINAL, EYELET, NO, 10, 18-20 GA, INSL	13536448
DD	TERMINAL, BUTT COGN, 14-18 GA, INSULATED	20074029
EE	TERMINAL, SOC, 12-14 GA, 280 SER, BLESS BAR, NVP	15606284
FF	TERMINAL, EYELET, 1/4, 14-20 GA, INSULATED	17363630
HH	TERMINAL, EYELET, 3/16, 10-12 GA, INSULATED	20074714
JJ	TERMINAL, EYELET, 1/8, 16-18 GA, INSULATED	08036316
KK	TERMINAL, EYELET, 1/8, 8 GA, INSULATED	10613613
LL	TERMINAL, BUTT COGN, 16-20 GA, INSULATED	15948415
NN	TERMINAL, F, 18-20 GA, 630 SER, NVP	18311585

- NOTES:
1. WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE PER SAE J1128-GR.
 2. WIRE MUST BE TO AROUND STANDARD POLYETHYLENE OR EQUIVALENT.
 3. LOOM MUST BE APPROPRIATELY SIZED TO PROTECT WIRE AND INSULATION FROM 1/8" INCH FROM CONNECTOR UNLESS OTHERWISE SPECIFIED.
 4. SERIAL CIRCUIT NUMBER SHALL BE IDENTIFIED BY CONTRASTING COLOR.
 5. NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION.
 6. ALL WIRE HARNESS CONNECTORS SHALL BE INSTALLED TO MEET MANUFACTURERS MINIMUM REQUIREMENTS.
 7. TERMINALS AND WIRE ARE TO BE FROM APPROVED SUPPLIER ONLY.
 8. ALL WIRE HARNESS ARE TO BE 100% CHECKED AND TESTED WITH APPROVED TOLTS FOR CONTINUITY, GROUND POLARITY AND LEAK CURRENTS.
 9. ALL RELAYS, FLAPLAPS, ETC. MUST BE FUNCTIONALLY TESTED.
 10. ALL SPLICES SHALL BE DRIVING.
 11. DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO BE WITHIN 1/16" INCH PER FOOT NOT TO EXCEED 1 INCH.
 12. ALL CONNECTORS ARE SHOWN FROM A CABIN INSIDE VIEW ONLY.
 13. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, UNLESS OTHERWISE INDICATED.
 14. ALL BREAKOUTS MUST BE TARGED.
 15. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE OR BREAKOUT, BUT NOT FROM BREAKOUT, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
 16. TERN TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED.
 17. FROM HEAT.
 18. ALL HARNESSSES OR ASSYS MUST COMPLY WITH A SPECIFIC BLUE BIRD ORANGE AND GREEN. THEY CAN NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED "REPAIRS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.
 19. THE CONNECTOR BODY WILL BE LABELED WITH COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.

[illegible]



WIRE LIST							
CIRC	CA	WIRE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION
			START	FINISH	START	FINISH	
1301	14	DK DVBK	P4	SPLICE 8	P	--	HI BEAM PWR
1301A	14	DK DVBK	SPLICE 21	P4	--	P	HEADLIGHT PWR
1301B	18	DK DVBK	P8	P3	G	H JOHN W/1301A	HEADLIGHT LO BEAM CTRL
1301D	18	DK DVBK	P19	P4	P	D	HI BEAM CTRL
1301E	14	DK DVBK	P4	P1	F	F	HEADLIGHT PWR
1301F	14	DK DVBK	P3	SPLICE 2	F	--	HEADLIGHT LO BEAM
1301G	14	DK DVBK	P1	P8	N	--	HEADLIGHT CTRL
1301H	14	DK DVBK	SPLICE 2	P10	--	J	LO BEAM
1301J	18	DK DVBK	SPLICE 8	P18	--	D	HI BEAM INO
1301K	14	DK DVBK	SPLICE 3	P10	--	J	HI BEAM PWR
1301L	14	DK DVBK	P3	P19	--	D	HEADLIGHT ON
1301M	14	DK	P1	SPLICE 27	N	--	HEADLIGHT PWR
1302	14	DK	P14	P10	P	J	DRY LGT PWR
1304A	18	RD FUS LINK	--	SPLICE 18	AK	--	DRY LGT FEED
1304B	14	DK	SPLICE 18	P14	--	P	DRY LGT PWR
1304C	18	DK	P4	P14	P JOHN W/1302	J	DRY LGT PWR
1304D	18	DK	P14	P18	NN	D	DRY LGT CTRL
1310	16	DK DVBK	P12	P3	E	F	CLEARANCE LIGHT
1310A	14	DK DVBK	P1	P3	N	L JOHN W/1308	CLEARANCE LIGHT
1310B	14	DK DVBK	P3	P5	--	G	CLEARANCE LIGHTS
1310C	16	DK DVBK	P12	P3	F	F	CLEARANCE LIGHT POWER
1310D	18	LT BL	P8	P13	G	E	CLEARANCE LIGHT MGN SVT
1313A	14	LT	P13	SPLICE 9	F	--	LN DIR
1313B	14	YL	SPLICE 9	P9	--	G	LN DIR DIR
1313C	18	LT	SPLICE 9	P18	--	D	LN DIR INO
1313D	14	LT	SPLICE 9	P10	--	V	LN FRD DIR
1315A	16	BN	SPLICE 4	P9	--	G	TAIL LIGHTS
1315B	16	BN	P8	SPLICE 4	G	--	TAIL LIGHTS
1315C	16	BN	SPLICE 4	P10	--	V	HYAC ILLUMINATION
1315D	16	BN	SPLICE 4	SPLICE 7	--	--	TAIL LGT CTRL
1315E	16	DK DVBK	SPLICE 6	P3	--	J	CLEARANCE LIGHT FEED
1315G	18	BN	SPLICE 7	P12	--	--	TAIL LGT CTRL
1316A	16	OR	P1	P13	C	F JOHN W/1308	STOP LIGHT PWR
1316B	18	OR	P3	P13	H JOHN W/1308	J	STOP LIGHT PWR
1316C	18	OR	P8	P3	O	J	STOP LIGHT PWR
1316D	18	OR	P13	P13	J	J	STOP LIGHT PWR
1316E	16	OR	--	P13	F	G	STOP LIGHT FEED
1317A	18	OR	--	P1	O	D	ORL COND. POWER
1317B	18	WH	--	SPLICE 2	O	--	ORL LO BEAM
1317C	16	YL	--	P2	O	--	ORL PARK BRAKE SIGNAL
1317E	18	OR	P18	--	R JOHN W/1308	LL	HI BEAM SHORSE (DRL)
1317G	16	BL	--	P11	DD	C	ORL IGNITION POWER
1321	16	OR	SPLICE 5	P9	--	G	ENG COMPARTMENT LGTS POWER
1322A	16	YL	P1	P7	C	O	BACK-UP PWR
1322B	16	YL	P7	SPLICE 22	O	--	BACK-UP PWR
1322C	16	YL	SPLICE 22	P3	--	D	BACK-UP PWR
1322D	14	LT BL	P9	P18	G	O	REAR DRY LGT CTRL
1322E	14	LT BL	P9	P18	G	O	REAR ALARM CTRL
1323A	14	DK ON	P13	SPLICE 10	F	--	RN DIR
1323B	14	DK ON	SPLICE 10	P9	--	G	RN DIR DIR
1323C	16	DK ON	SPLICE 10	P10	--	V	RN FRD DIR
1323D	18	DK ON	SPLICE 10	P18	--	D	RN DIR INO
1331	18	YL BK	P19	SPLICE 29	O	--	LN DIR CTRL
1331A	18	YL BK	SPLICE 29	P19	--	E	LN DIR CTRL
1332	18	DK DVBK	P19	SPLICE 30	--	--	LN DIR CTRL
1332A	14	DK DVBK	SPLICE 30	P13	--	E	RN DIR CTRL
1332B	18	DK DVBK	P18	SPLICE 28	O	--	HAZARD INPUT
1402	18	TH	P7	P8	O	G	LOU FLUET LAMP
1418	18	LT	P7	P8	O	G	PYRO
1418A	18	RD	P7	P8	O	G	PYRO
1420D	18	LT BL	P7	P8	O	G	PYRO
1425	18	RD	SPLICE 20	P13	--	J	LOU COOLANT LAMP
1425A	18	RD	SPLICE 20	P18	--	D	ENGINE BRAKE ACTIVE
1425B	18	RD	P5	SPLICE 20	D	--	ENGINE BRAKE ACTIVE
1433A	16	RD	P9	P5	G	--	ENGINE BRAKE ACTIVE
1433B	16	RD	P11	SPLICE 5	--	G	HEAT SENSOR SIGNAL
1433C	16	RD	SPLICE 5	P9	--	--	ENG COMPARTMENT POWER
1434A	14	LT BL	SPLICE 13	P4	--	G	HEAT SENSOR POWER
1434B	18	RD FUSIBLE LINK	--	SPLICE 13	BB	--	VOLTMETER POWER
1455	18	TH	--	P8	O	G	VOLTMETER POWER
1455	18	DK	P7	P8	O	G	FUEL CONTAIN
1511	18	YL	P3	P5	E	O	WATER COOLANT
1515	18	WV BK	SPLICE 28	P5	--	G	WATER COOLANT OVERHEAT
1515A	18	WV BK	P1	P6	--	C	* PARK BRAKE
1515B	18	WV BK	P3	P2	--	O	* PARK BRAKE SUPPLY
1515C	18	WV BK	P3	P2	E	H JOHN W/1515B	* PARK BRAKE
1515D	18	WV BK	P2	P3	--	--	* PARK BRAKE
1515E	18	PV	P3	SPLICE 28	J	H JOHN W/1515B	NEUTRAL SIGNAL
1515G	18	WV BK	P2	SPLICE 28	J	H JOHN W/1515B	* PARK BRAKE INTERLOCK
1519A	18	WV BK	P3	P3	--	J	NEUTRAL SIGNAL
1519B	18	WV BK	P3	P13	--	J	NEUTRAL SIGNAL
1519C	18	PV	SPLICE 3	P2	--	J	NEUTRAL SIGNAL
1519D	18	WV BK	SPLICE 3	P2	--	J	NEUTRAL SIGNAL
1519E	18	WV BK	P8	P5	--	G	NEUTRAL SIGNAL
1519F	18	WV BK	P8	P13	O	E	PAN OVERHEAT
1519G	18	WV BK	P5	P13	O	F JOHN W/1519E	ENGINE BRAKE LEVEL SELECT
1519H	18	LT BL	P6	P13	D	E	ENGINE BRAKE LEVEL SELECT
1519I	18	LT BL	P13	P13	F JOHN W/1519H	M	ENGINE BRAKE CONTROL
1519J	18	LT BL	P13	P13	--	--	ENGINE BRAKE

•• LOOSE PIECE LOCATION

TERMINAL LIST		
TERM	DESCRIPTION	PART NUMBER
A	TERMINAL EYELET, 5/16-8 GA. INSULATED	0410936
B	TERMINAL, SOC, 10-16 GA, 230 SER, BUSS BAR, MTR-PC	1950732
C	TERMINAL, SOC, 16-18 GA, 230S, BUSS BAR, MTR-PC	1952415
D	TERMINAL, SOC, 14-16 GA, CPC	1077474
E	TERMINAL, P, 16-18 GA, 430 SERIES, MTR1-PAK	1950716
F	TERMINAL, P, 14-16 GA, 430 GA, MTR1-PAK	1947100
G	TERMINAL, PIN, 14-16 GA, SER 1 AND 1.5 PC	1077486
H	TERMINAL, F, 12/116-18 GA, 430 SER, MTR1-PAK	1950716
J	TERMINAL, SOC, 12-14 GA, 230 SER, MTR1-PAK	1811551
L	TERMINAL, 12/114 OR 10-12 GA, 630S, MTR1-PAK	1955663
M	TERMINAL, F, 18-20 GA, 630 SERIES, MTR1-PAK	1950683
N	TERMINAL, F, 12-14 GA, 230 SER, BUSS BAR, M/P	1950724
P	TERMINAL, F, 14-16 GA, 630 SERIES, M/P	1703354
R	TERMINAL, F, 10-12 GA, 630 SER, M/P	1703362
S	TERMINAL, EYELET, 1/8-16 GA, 10-12 GA, INSULATED	0944955
U	TERMINAL, EYELET, NO 10, 14-16 GA, INS.	2007433
V	TERMINAL, SOC, 16-18 GA, 330 SERIES, M/P	1814748
Y	TERMINAL, S, IDE, 1/4, 18-20 GA, FULLY INS.	1486607
Y	TERMINAL, EYELET, NO 10, 8 GA, INS.	0410944
Z	TERMINAL, S, IDE, 1/4, 14-16 GA, FULLY INS.	1816121
AA	TERMINAL, PIN, 12-16 GA, CPC SERIES, 3 AMP	1077502
BB	TERMINAL, EYELET, 5/16, 22-18 GA, INSULATED	1541820
CC	TERMINAL, EYELET, NO 10, 16-20 GA, INS.	1353646
CD	TERMINAL, BUTT, CONC, 14-16 GA, INSULATED	2007409
CE	TERMINAL, EYELET, 1/8-16 GA, INSULATED	1013653
CH	TERMINAL, EYELET, 1/8, 10-12 GA, INSULATED	2007474
JJ	TERMINAL, EYELET, 3/8, 16-16 GA, INSULATED	0803361
KJ	TERMINAL, EYELET, 3/4, 18-20 GA, INSULATED	1959445
LL	TERMINAL, BUTT, CONC, 16-22 GA, INSULATED	1811585
NN	TERMINAL, F, 18-20 GA, 630 SER, M/P	

- NOTES:
1. WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE TYPE J1128-00.
 2. LOOM MUST BE RIGID AND STANDARD POLYETHYLENE OR EQUIVALENT.
 3. LOOM MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND STOP ON STOP OF THE CONNECTOR, UNLESS OTHERWISE SPECIFIED.
 4. CIRCUIT NUMBERS SHALL BE PERMANENTLY MARKED ON THE WIRE, NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION. COLOR MARKING SHALL BE USED. WIRE SHALL BE INSTALLED TO MEET MANUFACTURERS' MINIMUM REQUIREMENTS.
 5. CABLES AND WIRE ARE TO BE FROM APPROVED SUPPLIER ONLY.
 6. HARNESSES SHALL BE PROTECTED EXTERNALLY TESTED WITH APPROVED TOOLING FOR CONTINUITY, DIODE POLARITY AND LACK OF SHORTS. COILING SHALL BE RELATIVE TO THE WIRE, AND MUST BE FUNCTIONALLY TESTED.
 7. ALL SPLICES SHALL BE ENVIRONMENTALLY SEALED.
 8. DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO BE WITHIN TOLERANCES TO EXCEED 1 INCH.
 9. ALL CONNECTORS ARE SHOWN FROM THE CABLE INSERTION SIDE UNLESS OTHERWISE INDICATED.
 10. BREAKOUTS MUST BE TAPPED UNLESS OTHERWISE INDICATED.
 11. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE TO BREAKOUT, BREAKOUT TO BREAKOUT, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
 12. WIRE TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED.
 13. HOT WIRE SHALL BE IDENTIFIED BY A RED STRIPE.
 14. ALL HARNESSES OR ASSY'S MUST COMPLY WITH A SPECIFIC BLUE BIRD DRUGS, INC. AND NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED TO BE "REPAIRABLE" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.
 15. ALL CONNECTORS MUST BE LABELED WITH COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.

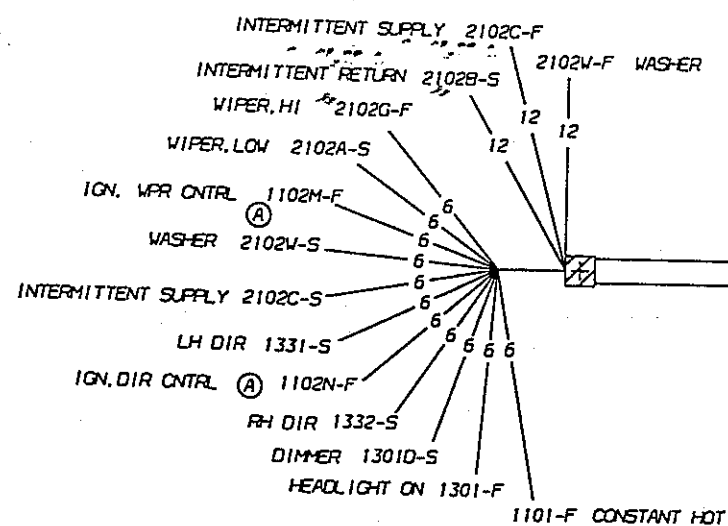
→	0100E
X	SPOUT TAPE
○	COMPONENT NUMBER
101-2	START OF FINISH CIRCUIT NUMBER
▽	SPLICE NUMBER
▨	TAPE
□	LOOM
Marked as per instructions at Part Number	
DATE _____	
PROPERTY NO. _____	
1985050	

19851670 HARNESS, WRG, STEERING COLUMN, HB17

W4RE12243K\$00RVRV

WIRE LIST						
CIRC	GA	WIRE COLOR	LOCATION		TERMINAL	
			START	FINISH	START	FINISH
1101	16	RD	PI	**	A	NONE
1102L	16	PK	PI	SPLICE 2	A	NONE
1102M	16	PK	SPLICE 2	**	---	---
1102N	18	PK	SPLICE 3	**	---	---
1301	18	DK GN/BK	PI	**	A	NONE
1301D	18	DK GN/BK	**	PI	NONE	NONE
1331	18	YL/BK	**	PI	NONE	A
1332	18	DK GN/BK	**	PI	NONE	A
2102A	18	RD	**	SPLICE 1	NONE	---
2102B	18	LT BL	**	SPLICE 1	NONE	---
2102C	18	BK	**	**	NONE	NONE
2102G	18	BN	PI	**	A	NONE
2102K	18	BN	SPLICE 1	PI	---	A
2102V	16	BK	**	**	NONE	NONE

** LOOSE PIECE LOCATION



SEALED SPLICE 1	
2102A-F	2102K-S
2102B-F	

SEALED SPLICE 2	
1102L-F	DIODE
1102M-S	ANODE

SEALED SPLICE 3	
1102N-S	DIODE
	CATHODE

PIN	CIRCUIT	PIN	CIRCUIT
1	1102L-S	9	1332-F
2	1102B-S	10	1331-F
3	2102G-S	11	1101-S
4	2102K-F	12	NONE
5	1301-S	13	NONE
6	1301D-F	14	NONE
7	NONE	15	NONE
8	NONE	16	NONE

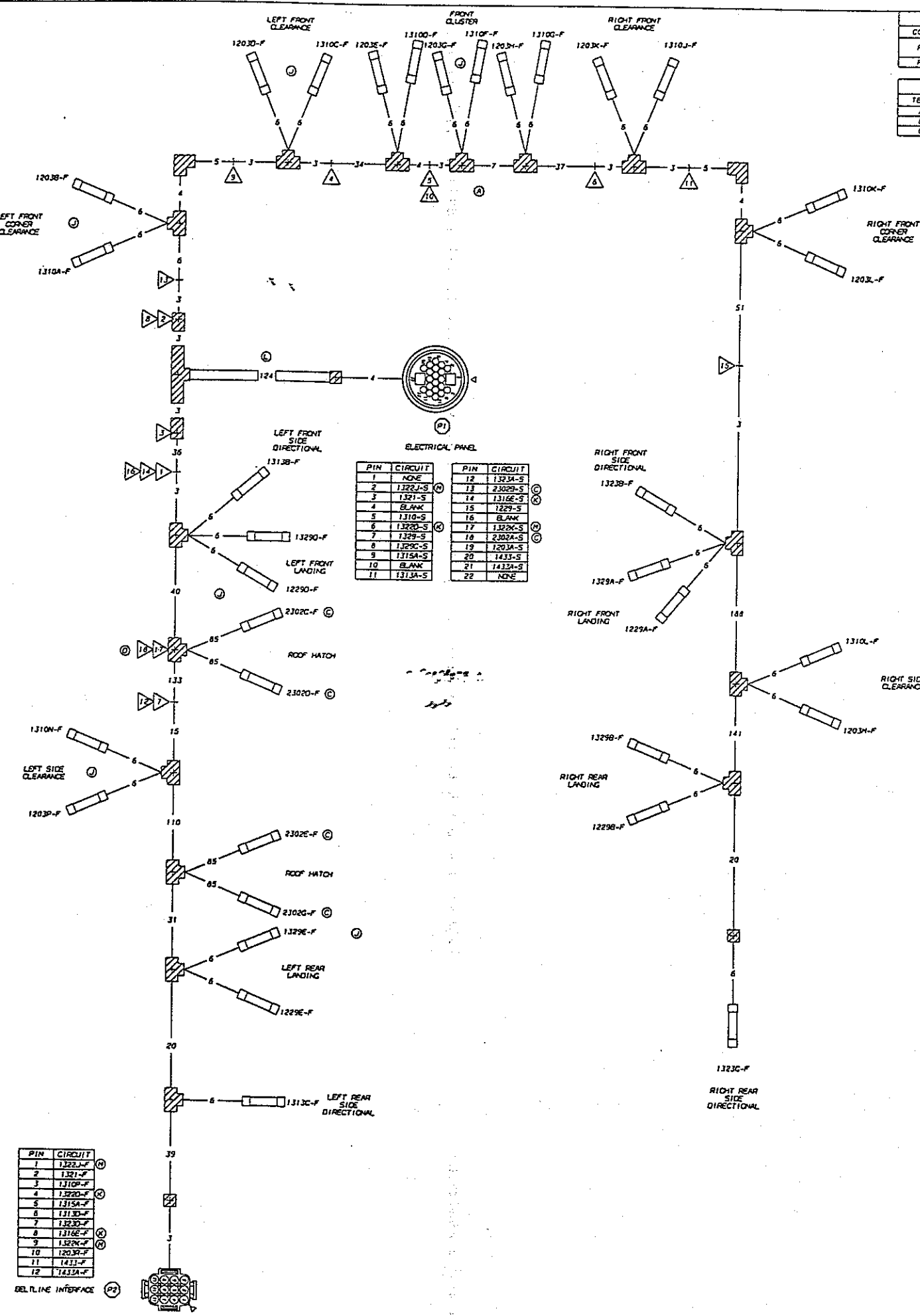
NOTES:

1. WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE PER SAE J1128-GXL.
2. LOOM MUST BE PACKARD STANDARD POLYETHYLENE OR EQUIVALENT. LOOM MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND SHALL STOP ONE INCH FROM CONNECTOR UNLESS OTHERWISE SPECIFIED.
3. CIRCUIT NUMBERS SHALL BE PERMANENTLY MARKED WITH CONTRASTING COLOR NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION.
4. TERMINALS AND CONNECTORS SHALL BE INSTALLED TO MEET MANUFACTURERS MINIMUM REQUIREMENTS.
5. TERMINALS AND WIRE ARE TO BE FROM APPROVED SUPPLIER ONLY. HARNESSES SHALL BE 100% ELECTRICALLY TESTED WITH APPROVED TOOLING FOR CONTINUITY, DIODE POLARITY AND LACK OF SHORTS. COMPONENTS SUCH AS RELAYS, FLASHERS, ETC. MUST BE FUNCTIONALLY TESTED.
6. ALL SPLICES SHALL BE ENVIRONMENTALLY SEALED.
7. DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS MUST BE WITHIN .25 INCH PER FOOT NOT TO EXCEED 1 INCH.
8. ALL CONNECTORS ARE SHOWN FROM THE CABLE INSERTION END.
9. ALL BREAKOUTS MUST BE TAPED.
10. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE TO BREAKOUT, BREAKOUT TO 1/4 OF EYELET, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
11. RING TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED USING HEAT SHRINK.
12. ALL HARNESSES OR ASSY'S MUST COMPLY WITH A SPECIFIC BLUE BIRD DRAWING, AND CAN NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED TO BE "REPAIR CRIMPS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.
13. ALL CONNECTORS WILL BE LABELED WITH COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.

COMPONENT LIST		
COMP	DESCRIPTION	PART NUMBER
P1	CONNECTOR, 16 CIRC, CAP, CPC, SERIES 1, AMP	1692482
P2	CLAMP, STRAIN RELIEF, W/O SEAL, CPC, AMP	1692490
	DIODE, 1N5408	1320977

TERMINAL LIST		
TERM	DESCRIPTION	PART NUMBER
A	TERMINAL, PIN, 14-18 GA, CPC, SERIES 1, AMP, LS PC	1077486

DIODE	SPOT TAPE	COMPONENT NUMBER	START OR FINISH CIRCUIT NUMBER	SPLICE NUMBER	TAPE	LOOM
103-S						
D -- ADD DIODE P2 AND SPLICE 3 (W/VER 98-171) BY RV 12/24/98 C -- ADD STRAIN RELIEF AND NOTE 13 BY RV 12/24/98 B -- ADD SPLICE 2: CHG WIRE SIZE BY RV 12/11/00 A -- ADD CIRC 1102L, M, N; DELETE CIRC 1102A, B BY RV 12/11/00						
LET. WAS REVISIONS DR. APP. CDR CON 121100 BLUE BIRD CORPORATION FORT VALLEY, GEORGIA, U.S.A. SCALE NONE HARNESS, WRG, STEERING COLUMN, HB17 W4RE DR. 09/30/97 BY AL APP. 10/28/97 BY RV C 1985167 PAGE 73						



- NOTES:**
- WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE PER SAE J1126-SH.
 - LOOM MUST BE PACKARD STANDARD POLYETHYLENE OR EQUIVALENT. LOOM MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND SHALL STOP ONE INCH FROM CONNECTOR MARKED WITH CONTRASTING COLOR.
 - CIRCUIT NUMBERS SHALL BE PERMANENTLY MARKED WITH CONTRASTING COLOR NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION.
 - TERMINALS AND CONNECTORS SHALL BE INSTALLED TO MEET MANUFACTURERS' MINIMUM REQUIREMENTS.
 - TERMINALS AND WIRE ARE TO BE FROM APPROVED SUPPLIER ONLY.
 - HARNESSES SHALL BE 100% ELECTRICALLY TESTED WITH APPROVED TOOLING FOR CONTINUITY, DIODE POLARITY AND LACK OF SHORTS. COMPONENTS SUCH AS RELAYS, FLASHERS, ETC. MUST BE FUNCTIONALLY TESTED.
 - ALL SPICES SHALL BE ENVIRONMENTALLY SEALED.
 - DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS MUST BE WITHIN .25 INCH PER FOOT NOT TO EXCEED 1 INCH.
 - ALL CONNECTORS ARE SHOWN FROM THE CABLE INSERTION END.
 - ALL BREAKOUTS MUST BE TAPED.
 - DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPICE TO BREAKOUT, BREAKOUT TO 6 OF ETELEI, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
 - RING TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED USING HEAT SHRINK.
 - ALL HARNESSES OR ASSY'S MUST COMPLY WITH A SPECIFIC BLUE BIRD DRAWING, AND CAN NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED TO BE "REPAIR CRIMPS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.
 - WHERE LOOM IS NOT INDICATED BIND HARNESSES WITH CONTINUOUS SPIRAL OF VINYL TAPE USING APPROXIMATELY 12 TURNS PER FOOT.
 - ALL CONNECTORS WILL BE LABELED WITH COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.

WIRE LIST

CIRC	GA	WIRE COLOR	LOCATION	START	FINISH	START	FINISH	CIRCUIT DESCRIPTION
1203A	14	WH	SPICE 3	SPICE 3	A	---	---	CLEARANCE/CLUSTER GRD
1203B	14	WH	SPICE 3	SPICE 3	A	---	---	CLEARANCE/CLUSTER GRD
1203C	14	WH	SPICE 3	SPICE 3	A	---	---	CLEARANCE/CLUSTER GRD
1203D	14	WH	SPICE 4	SPICE 4	A	---	---	CLEARANCE/CLUSTER GRD
1203E	14	WH	SPICE 4	SPICE 4	A	---	---	CLEARANCE/CLUSTER GRD
1203F	14	WH	SPICE 4	SPICE 4	A	---	---	CLEARANCE/CLUSTER GRD
1203G	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203H	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203I	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203J	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203K	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203L	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203M	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203N	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203O	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203P	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203Q	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203R	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203S	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203T	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203U	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203V	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203W	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203X	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203Y	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1203Z	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204A	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204B	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204C	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204D	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204E	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204F	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204G	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204H	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204I	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204J	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204K	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204L	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204M	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204N	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204O	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204P	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204Q	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204R	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204S	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204T	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204U	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204V	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204W	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204X	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204Y	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1204Z	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205A	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205B	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205C	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205D	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205E	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205F	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205G	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205H	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205I	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205J	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205K	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205L	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205M	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205N	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205O	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205P	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205Q	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205R	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205S	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205T	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205U	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205V	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205W	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205X	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205Y	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1205Z	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206A	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206B	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206C	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206D	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206E	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206F	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206G	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206H	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206I	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206J	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206K	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206L	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206M	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206N	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206O	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206P	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206Q	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206R	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206S	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206T	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206U	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206V	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206W	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206X	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206Y	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1206Z	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207A	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207B	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207C	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207D	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207E	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207F	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207G	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207H	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207I	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207J	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207K	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207L	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207M	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207N	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207O	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207P	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207Q	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207R	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207S	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207T	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1207U	14	WH	SPICE 5	SPICE 5	A	---	---	CLEARANCE/CLUSTER GRD
1								

0012021A CHARNNESS,WRG,BELTLINE LIGHTS POWER,HC8 RCD12447A\$00RV0S

WIRE LIST						
CIRC	GA	WIRE COLOR	LOCATION		TERMINAL	
			START	FINISH	START	FINISH
1101	12	RD	SPLICE 2	**	--	E
1101A	16	BK FUSIBLE LINK	SPLICE 2	**	--	C
1117	12	RD	P1	**	F	E
1215A	12	WH	SPLICE 1	P3	--	B
1215B	16	WH	SPLICE 1	P1	--	G
1216C	10	WH	**	SPLICE 1	D	--
1216D	12	WH	SPLICE 1	P3	--	B
1316E	16	RD	P1	P2	G	A
1316H	12	RD	P1	P3	F	B

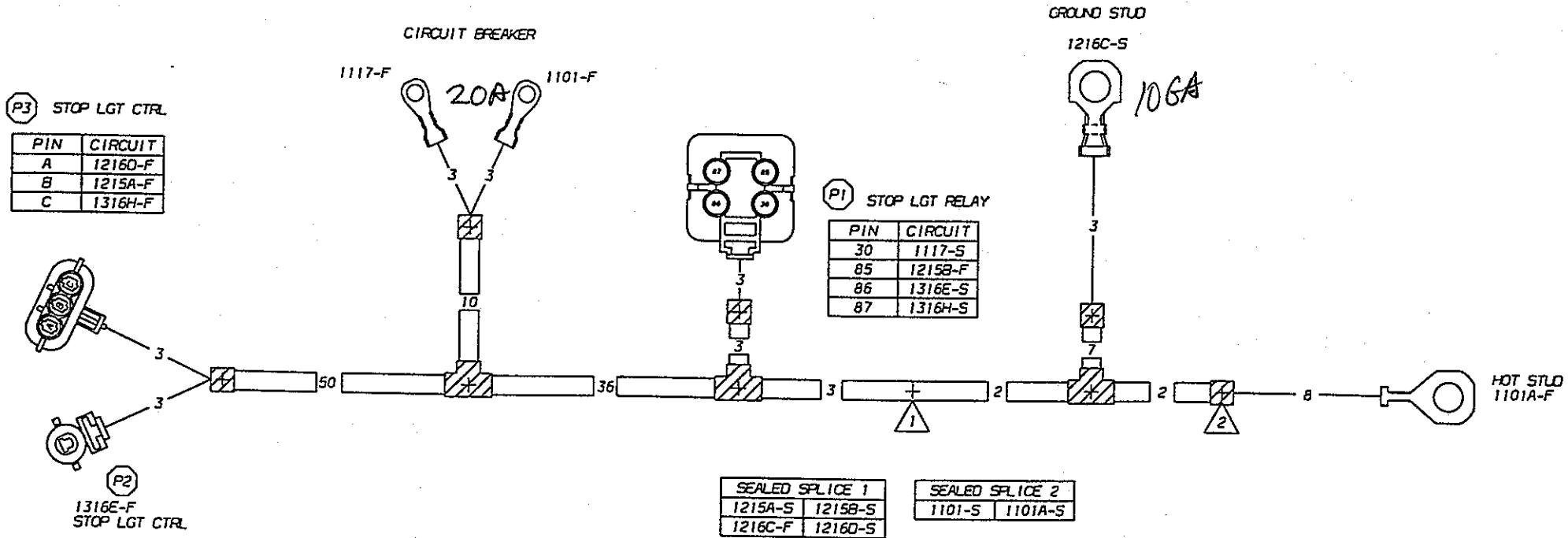
** LOOSE PIECE LOCATION

WT LIST		
COMP	DESCRIPTION	PART NUMBER
P1	CONNECTOR, 4 CIRC.F, 280S, FLEX-LOCK, PAC	1793140
P2	LOCK, SECD, 6 CIRC, 280S, FLEX-LOCK	1817006
P2	CONNECTOR, 3 CIRC.F, 280S, PAC	1613603
P3	LOCK, SECD, 1 CIRC, 280S	1613637
P3	CONNECTOR, 3 CIRC.H, 280S, PAC	1860162
P3	LOCK, SECD, 3 CIRC, 280S	1860170

TERMINAL LIST		
COMP	DESCRIPTION	PART NUMBER
A	TERMINAL, SOC, 14-16 GA, 280S	1925874
A	SEAL, WIRE, CBL/DIA, 111-.137, GRAY	1154582
B	TERMINAL, PIN, 12-14 GA, 280S	1754357
B	SEAL, WIRE, CBL/DIA, 136-.169, BLUE	1113315
C	TERMINAL, EYELET, 3/8, 14-16 GA	1903210
D	TERMINAL, EYELET, 3/8, 10 GA	1861194
E	TERMINAL, EYELET, #10, 12-14 GA	1888635
F	TERMINAL, SOC, 12-14 GA, 280S, TANGLESS	1816990
F	SEAL, WIRE, CBL/DIA, 136-.169, BLUE	1113315
G	TERMINAL, SOC, 16-18 GA, 280S, TANGLESS	1873785
G	SEAL, WIRE, CBL/DIA, 111-.137, GRAY	1154582

NOTES:

1. WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE PER SAE J1128-GXL.
2. LOOM MUST BE PACKARD STANDARD POLYETHYLENE OR EQUIVALENT. LOOM MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND SHALL STOP ONE INCH FROM CONNECTOR UNLESS OTHERWISE SPECIFIED.
3. CIRCUIT NUMBERS SHALL BE PERMANENTLY MARKED WITH CONTRASTING COLOR NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION.
4. TERMINALS AND CONNECTORS SHALL BE INSTALLED TO MEET MANUFACTURERS MINIMUM REQUIREMENTS.
5. TERMINALS AND WIRE ARE TO BE FROM APPROVED SUPPLIER ONLY. HARNESSES SHALL BE 100% ELECTRICALLY TESTED WITH APPROVED TOOLING FOR CONTINUITY, DIODE POLARITY AND LACK OF SHORTS. COMPONENTS SUCH AS RELAYS, FLASHERS, ETC. MUST BE FUNCTIONALLY TESTED.
6. ALL SPLICES SHALL BE ENVIRONMENTALLY SEALED.
7. DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS MUST BE WITHIN .25 INCH PER FOOT NOT TO EXCEED 1 INCH.
8. ALL CONNECTORS ARE SHOWN FROM THE CABLE INSERTION END.
9. ALL BREAKOUTS MUST BE TAPED.
10. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE TO BREAKOUT, BREAKOUT TO C OF EYELET, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
11. RING TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED USING HEAT SHRINK.
12. ALL HARNESSES OR ASSY'S MUST COMPLY WITH A SPECIFIC BLUE BIRD DRAWING, AND CAN NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED TO BE "REPAIR CRIMPS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.
13. ALL CONNECTORS WILL BE LABELED WITH THE COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.



DIODE	SPOT TAPE	COMPONENT NUMBER
START OR FINISH	SPLICE NUMBER	TAPE
LOOM		

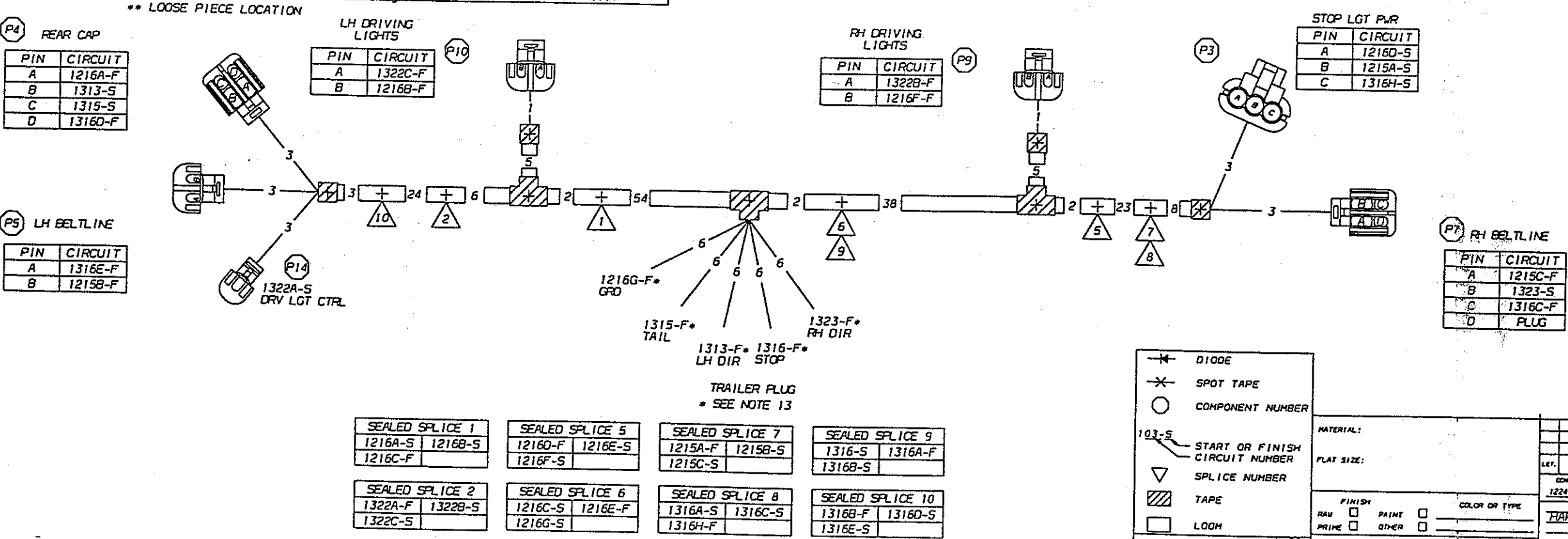
REV	DATE	BY	CHK
1	3/16/98	RV	CS
BLUE BIRD CORPORATION FORT VALLEY, GEORGIA, U.S.A.			
HARNESS, WRG, BELTLINE LIGHTS POWER, HC8			
RCD12447A			
0012021			

WIRE LIST							
CIRC	GA	WIRE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION
			START	FINISH	START	FINISH	
1215A	12	WH	P3	SPLICE 7	C	--	BELTLINE GRD
1215B	14	WH	SPLICE 7	P5	--	L	LH BELTLINE GRD
1215C	14	WH	SPLICE 7	P7	--	L	RH BELTLINE GRD
1216A	14	WH	SPLICE 1	P4	--	L	MISC GRD (CHMSL)
1216B	14	WH	SPLICE 1	P10	--	L	MISC GRD (LH DRV LGT)
1216C	14	WH	SPLICE 6	SPLICE 1	--	--	MISC GRD
1216D	14	WH	P3	SPLICE 5	C	--	MISC GRD
1216E	14	WH	SPLICE 5	SPLICE 6	--	--	MISC GRD
1216F	14	WH	SPLICE 5	P9	--	L	MISC GRD (RH DRV LGT)
1216G	14	WH	SPLICE 6	**	--	NONE	MISC GRD (TRAILER PLUG)
1313	14	YL	P4	**	L	NONE	LH DIR (TRAILER PLUG)
1315	14	BN	P4	**	L	NONE	TAIL LIGHTS (TRAILER PLUG)
1316	14	RD	SPLICE 9	**	--	NONE	STOP LIGHT (TRAILER PLUG)
1316A	12	RD	SPLICE 8	SPLICE 9	--	--	STOP LIGHT
1316B	14	RD	SPLICE 9	SPLICE 10	--	--	STOP LIGHT
1316C	14	RD	SPLICE 8	P7	--	L	RH STOP LIGHT
1316D	14	RD	SPLICE 10	P4	--	L	STOP LIGHT (CHMSL)
1316E	14	RD	SPLICE 10	P5	--	L	LH STOP LIGHT
1316H	12	RD	P3	SPLICE 8	C	--	STOP LIGHT
1322A	14	LT BL	P14	SPLICE 2	L	--	RR DRV LGTS CTRL
1322B	14	LT BL	SPLICE 2	P9	--	L	RH RR DRV LGT
1322C	14	LT BL	SPLICE 2	P10	--	L	LH RR DRV LGT
1323	14	DK GN	P7	**	L	NONE	RH DIR (TRAILER PLUG)

TERMINAL LIST		
COMP	DESCRIPTION	PART NUMBER
C	TERMINAL, SOC, 12-14 GA, 280S	1461433
	SEAL, WIRE, CBL/DIA, 136--169, BL, W/P	1113315
L	TERMINAL, SOC, 14-16 GA, W/P	1154541
	SEAL, WIRE, CBL/DIA, 136--169, BL, W/P	1113315

COMPONENT LIST		
COMP	DESCRIPTION	PART NUMBER
P3	CONNECTOR, 3 CIRC, F, 280S, PAC	1543057
	LOCK, SECD, 3 CIRC, 280S	1461474
P4	CONNECTOR, 4 CIRC, TOWER, W/P	1910231
P5	CONNECTOR, 2 CIRC, TOWER, W/P	1161868
P7	CONNECTOR, 4 CIRC, TOWER, W/P	1910231
	PLUG, SEALING, W/P	1161843
P9	CONNECTOR, 2 CIRC, TOWER, W/P	1161868
P10	CONNECTOR, 2 CIRC, TOWER, W/P	1161868
P14	CONNECTOR, 1 CIRC, TOWER, W/P	1154566

- NOTES:
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 2. LOOM MUST BE PACKARD STANDARD POLYETHYLENE OR EQUIVALENT. LOOM MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND SHALL STOP ONE INCH FROM CONNECTOR UNLESS OTHERWISE SPECIFIED.
 3. CIRCUIT NUMBERS SHALL BE PERMANENTLY MARKED WITH CONTRASTING COLOR NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION.
 4. TERMINALS AND CONNECTORS SHALL BE INSTALLED TO MEET MANUFACTURERS MINIMUM REQUIREMENTS.
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 13. STRIP .5" AND TIN FOLLOWING TRAILER PLUG CIRCUITS: 1216G-F, 1315-F, 1313-F, 1316-F, AND 1323-F.
 14. ALL CONNECTORS WILL BE LABELED WITH THE COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.



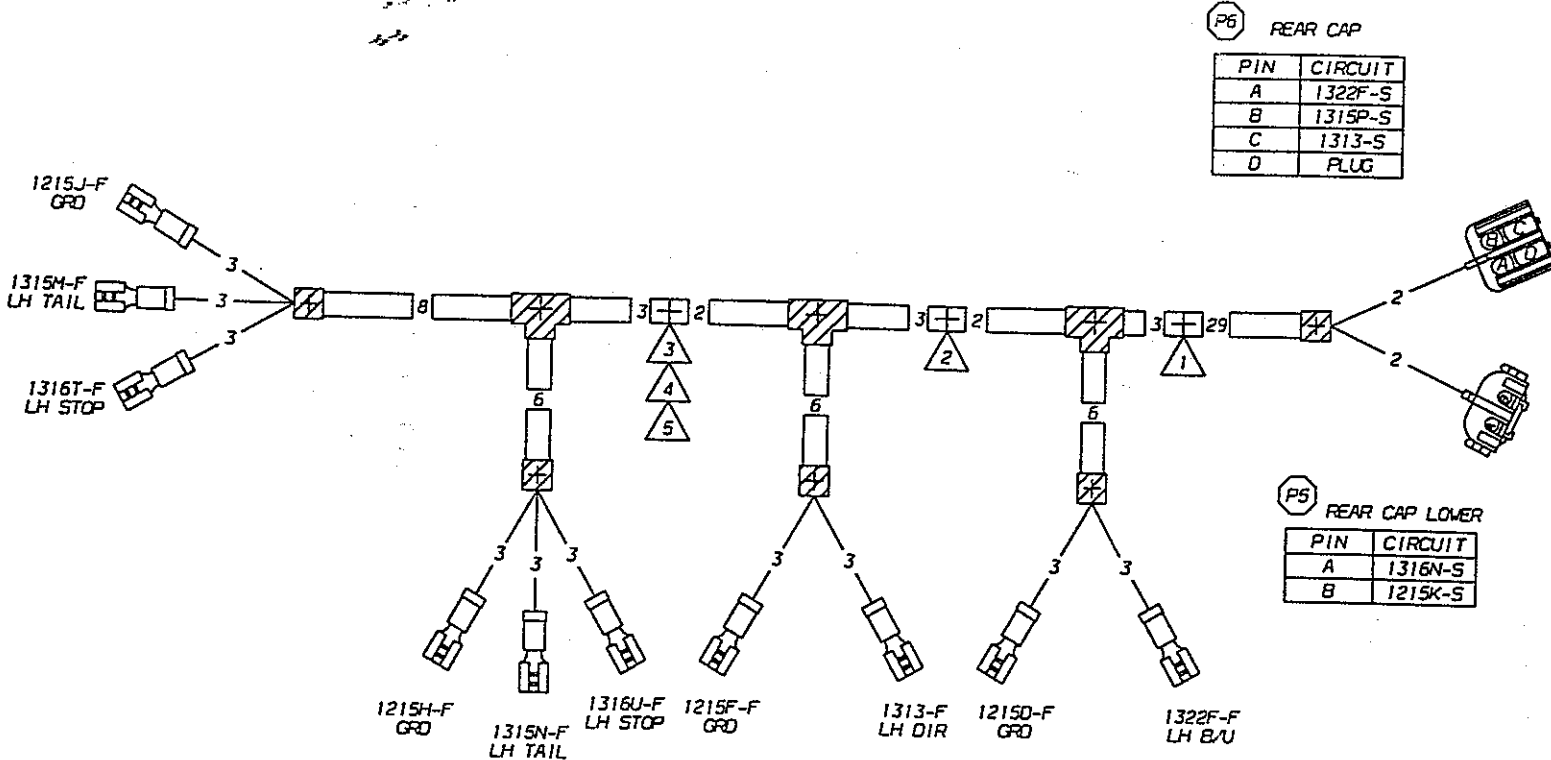
WIRE LIST							
CIRC	GA	WIRE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION
			START	FINISH	START	FINISH	
1215D	14	WH	SPLICE 1	**	--	A	B/U GRD
1215E	14	WH	SPLICE 1	SPLICE 2	--	--	BELTLINE GRD
1215F	14	WH	SPLICE 2	**	--	A	DIR GRD
1215G	14	WH	SPLICE 2	SPLICE 3	--	--	BELTLINE GRD
1215H	14	WH	SPLICE 3	**	--	A	STOP/TAILO GRD (LOWER)
1215J	14	WH	SPLICE 3	**	--	A	STOP/TAILO GRD (UPPER)
1215K	14	WH	P5	SPLICE 1	K	--	BELTLINE GRD
1313	14	YL	P6	**	K	A	LH DIR
1315P	14	BN	P6	SPLICE 4	K	--	TAIL LIGHT
1315M	14	BN	SPLICE 4	**	--	A	TAIL LIGHT (UPPER)
1315N	14	BN	SPLICE 4	**	--	A	TAIL LIGHT (LOWER)
1316T	14	RD	P5	SPLICE 5	K	--	STOP LIGHT
1316U	14	RD	SPLICE 5	**	--	A	STOP LIGHT (UPPER)
1322F	14	LT BL	P6	**	K	A	STOP LIGHT (LOWER)

** LOOSE PIECE LOCATION

TERMINAL LIST		
COMP	DESCRIPTION	PART NUMBER
A	TERMINAL, SLIDE, 1/4, 14-16 GA., INSL	2007417
K	TERMINAL, PIN, 14-16 GA, W/P	1113307
	SEAL, WIRE, CBL/DIA. 136-.169, BL., W/P	1113315

COMPONENT LIST		
COMP	DESCRIPTION	PART NUMBER
P5	CONNECTOR, 2 CIRC, SHROUD, W/P	1161850
P6	CONNECTOR, 4 CIRC, SHROUD, W/P	1897982
	PLUG, SEALING, W/P	1161843

- NOTES:
1. WIRE INSULATION SHALL BE CHEMICALLY CROSS LINKED POLYETHYLENE PER SAE J1128-SXL.
 2. LOOM MUST BE PACKARD STANDARD POLYETHYLENE OR EQUIVALENT. LOOM MUST BE APPROPRIATELY SIZED TO COMPLETELY COVER WIRE, AND SHALL STOP ONE INCH FROM CONNECTOR UNLESS OTHERWISE SPECIFIED.
 3. CIRCUIT NUMBERS SHALL BE PERMANENTLY MARKED WITH CONTRASTING COLOR NEAR THE TERMINAL ENDS OF EACH CIRCUIT AT A VISIBLE LOCATION.
 4. TERMINALS AND CONNECTORS SHALL BE INSTALLED TO MEET MANUFACTURERS MINIMUM REQUIREMENTS.
 5. TERMINALS AND WIRE ARE TO BE FROM APPROVED SUPPLIER ONLY. HARNESSES SHALL BE 100% ELECTRICALLY TESTED WITH APPROVED TOOLING FOR CONTINUITY, DIODE POLARITY AND LACK OF SHORTS. COMPONENTS SUCH AS RELAYS, FLASHERS, ETC. MUST BE FUNCTIONALLY TESTED.
 6. ALL SPLICES SHALL BE ENVIRONMENTALLY SEALED.
 7. DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS MUST BE WITHIN .25 INCH PER FOOT NOT TO EXCEED 1 INCH.
 8. ALL CONNECTORS ARE SHOWN FROM THE CABLE INSERTION END.
 9. ALL BREAKOUTS MUST BE TAPED.
 10. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE TO BREAKOUT, BREAKOUT TO 1/2 OF EYELET, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
 11. RING TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED USING HEAT SHRINK.
 12. ALL HARNESSES OR ASSY'S MUST COMPLY WITH A SPECIFIC BLUE BIRD DRAWING, AND CAN NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED TO BE "REPAIR CRIMPS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.
 13. ALL CONNECTORS WILL BE LABELED WITH COMPONENT NUMBER ON THE CONNECTOR BODY IN CONTRASTING COLOR.



SEALED SPLICE 1	SEALED SPLICE 4
1215K-F 1215D-S	1315P-F 1315N-S
1215E-S	1315M-S

SEALED SPLICE 2	SEALED SPLICE 5
1215E-F 1215F-S	1316N-F 1316U-S
1215G-S	1316T-S

SEALED SPLICE 3
1215G-F 1215H-S
1215J-S

Legend:

- DIODE
- SPOT TAPE
- COMPONENT NUMBER
- 103-S START OR FINISH CIRCUIT NUMBER
- SPLICE NUMBER
- TAPE
- LOOM

TRIMMING ON ALL DIMENSIONS IS PLUS

DO NOT SCALE

FUNCTIONALITY NOS. 1976687

REV.	DATE	REVISIONS	OR.	APP.	CON.
1	3/5/98				
CDR BLUE BIRD CORPORATION FORT VALLEY, GEORGIA, U.S.A.					
HARNESS, WRG, LIGHTS, LH RR, HBS					
WIRE					
DR.	3/5/98	BY	RV	C	0010504
APP.	3/18/98	BY	RV		

SEALED SPLICE 1		
2612G-F	2612H-S	2612J-S
SEALED SPLICE 2		
2610P-F	2610A-S	2610B-S
SEALED SPLICE 3		
2612J-F	2612K-S	2612L-S
SEALED SPLICE 4		
2610B-F	2610C-S	2610D-S
SEALED SPLICE 5		
2612L-F	2612M-S	2612N-S
SEALED SPLICE 6		
2610D-F	2610E-S	2610F-S
SEALED SPLICE 7		
2612P-F	2612A-S	2612B-S
SEALED SPLICE 8		
2610G-F	2610H-S	2610J-S
SEALED SPLICE 9		
2612B-F	2612C-S	2612D-S
SEALED SPLICE 10		
2610J-F	2610K-S	2610L-S
SEALED SPLICE 11		
2612D-F	2612E-S	2612F-S
SEALED SPLICE 12		
2610L-F	2610M-S	2610N-S

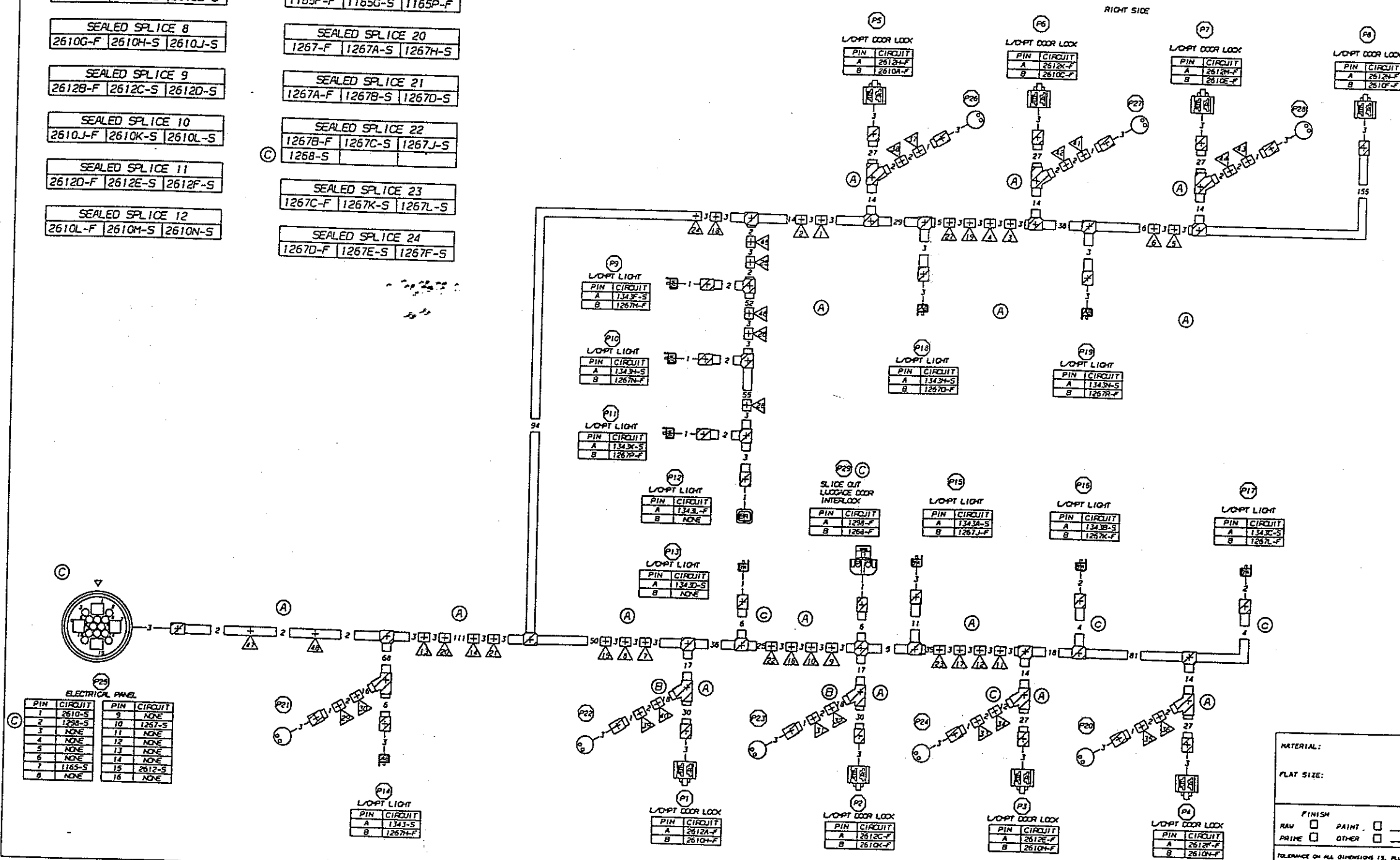
SEALED SPLICE 13		
1165-F	1165A-S	1165H-F
SEALED SPLICE 14		
1165A-F	1165B-S	1165E-S
SEALED SPLICE 15		
1165B-F	1165C-S	1165N-S
SEALED SPLICE 16		
1165C-F	1165D-S	1165J-F
SEALED SPLICE 17		
1165D-F	1165K-F	1165L-S
SEALED SPLICE 18		
1165E-F	1165F-S	1165M-F
SEALED SPLICE 19		
1165F-F	1165G-S	1165P-F
SEALED SPLICE 20		
1267-F	1267A-S	1267H-S
SEALED SPLICE 21		
1267A-F	1267B-S	1267D-S
SEALED SPLICE 22		
1267B-F	1267C-S	1267J-S
1268-S		
SEALED SPLICE 23		
1267C-F	1267K-S	1267L-S
SEALED SPLICE 24		
1267D-F	1267E-S	1267F-S

SEALED SPLICE 25		
1267F-F	1267G-S	1267M-S
SEALED SPLICE 26		
1267G-F	1267N-S	1267P-S
SEALED SPLICE 27		
1267E-F	1267O-S	1267R-S
SEALED SPLICE 28		
1343J-F	1343K-F	1343L-S
SEALED SPLICE 29		
1165H-S	P21	
SEALED SPLICE 30		
1343-F	P21	

SEALED SPLICE 31		
1165J-S	P23	
SEALED SPLICE 32		
1343A-F	P23	
SEALED SPLICE 33		
1165K-S	P24	
SEALED SPLICE 34		
1343B-F	P24	
SEALED SPLICE 35		
1165L-F	P20	
SEALED SPLICE 36		
1343C-F	P20	

SEALED SPLICE 37		
1165M-S	P26	
SEALED SPLICE 38		
1343E-F	P26	
SEALED SPLICE 39		
1165N-F	P22	
SEALED SPLICE 40		
1343D-F	P22	
SEALED SPLICE 41		
1165P-S	P27	
SEALED SPLICE 42		
1343M-F	P27	

SEALED SPLICE 43		
1165G-F	P28	
SEALED SPLICE 44		
1343N-F	P28	
SEALED SPLICE 45		
1343E-S	1343F-F	1343G-S
SEALED SPLICE 46		
1343G-F	1343H-F	1343J-S
SEALED SPLICE 47		
2612-F	2612G-S	2612P-S
SEALED SPLICE 48		
2610-F	2610G-S	2610P-S



ELECTRICAL PANEL			
PIN	CIRCUIT	PIN	CIRCUIT
1	2610-S	9	NONE
2	1258-S	10	1267-S
3	NONE	11	NONE
4	NONE	12	NONE
5	NONE	13	NONE
6	NONE	14	NONE
7	1165-S	15	2612-S
8	NONE	16	NONE

MATERIAL:

PLAT SIZE:

FINISH: ☐ PAINT ☐ COLOR OR TYPE

PRIME: ☐ OTHER ☐

TOLERANCE ON ALL DIMENSIONS IS, PLUS OR MINUS, UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE

INACTIVATES NOS.

C	ADD P29, CIRC 126A, 126B, DNG P25	BY	12/11/96
B	ADD LENGTH TO P13, P16, P17, P24	BY	12/11/96
A	DNG TO 18" AT BREAKOUTS P22 AND P23	BY	12/11/96
A	RELOCATED ALL SPLICES AWAY FROM BREAKOUTS	BY	12/11/96
A	ADD 2" AT HRC SWITCHES, SHIFT BREAKOUTS 2"	BY	12/11/96

LET. WAS

REVISIONS

DR. APP. CON.

CON 12243E

BLUE BIRD CORPORATION
FORT VALLEY, GEORGIA, U.S.A.

SCALE NONE

HARNES, WAG, LOCKS & LIGHTS, LUGGAGE COMPARTMENT

HB19

W4RE

DR. 01/13/98 BY ML

APP. 04/06/98 BY ML

D 1996735

PAGE 1 of 2

WIRE LIST

CIRC	GA	WIRE COLOR	LOCATION		TERMINAL		CIRCUIT DESCRIPTION
			START	FINISH	START	FINISH	
1165	14	BK	P25	SPLICE 13	B	--	L/OPT LIGHTS - POWER
1165A	14	BK	SPLICE 13	SPLICE 14	--	--	L/OPT LIGHTS - POWER
1165B	14	BK	SPLICE 14	SPLICE 15	--	--	L/OPT LIGHTS - POWER
1165C	14	BK	SPLICE 15	SPLICE 16	--	--	L/OPT LIGHTS - POWER
1165D	14	BK	SPLICE 16	SPLICE 17	--	--	L/OPT LIGHTS - POWER
1165E	14	BK	SPLICE 17	SPLICE 18	--	--	L/OPT LIGHTS - POWER
1165F	14	BK	SPLICE 18	SPLICE 19	--	--	L/OPT LIGHTS - POWER
1165G	18	BK	SPLICE 19	SPLICE 43	--	--	L/OPT LIGHTS - POWER
1165H	18	BK	SPLICE 29	SPLICE 13	--	--	L/OPT LIGHTS - POWER
1165J	18	BK	SPLICE 31	SPLICE 16	--	--	L/OPT LIGHTS - POWER
1165K	18	BK	SPLICE 33	SPLICE 17	--	--	L/OPT LIGHTS - POWER
1165L	18	BK	SPLICE 17	SPLICE 35	--	--	L/OPT LIGHTS - POWER
1165M	18	BK	SPLICE 37	SPLICE 18	--	--	L/OPT LIGHTS - POWER
1165N	18	BK	SPLICE 15	SPLICE 39	--	--	L/OPT LIGHTS - POWER
1165P	18	BK	SPLICE 41	SPLICE 19	--	--	L/OPT LIGHTS - POWER
1267	14	WH	P25	SPLICE 20	B	--	L/OPT LIGHTS - GROUND
1267A	14	WH	SPLICE 20	SPLICE 21	--	--	L/OPT LIGHTS - GROUND
1267B	14	WH	SPLICE 21	SPLICE 22	--	--	L/OPT LIGHTS - GROUND
1267C	14	WH	SPLICE 22	SPLICE 23	--	--	L/OPT LIGHTS - GROUND
1267D	14	WH	SPLICE 21	SPLICE 24	--	--	L/OPT LIGHTS - GROUND
1267E	14	WH	SPLICE 24	SPLICE 27	--	--	L/OPT LIGHTS - GROUND
1267F	14	WH	SPLICE 24	SPLICE 25	--	--	L/OPT LIGHTS - GROUND
1267G	14	WH	SPLICE 25	SPLICE 26	--	--	L/OPT LIGHTS - GROUND
1267H	18	WH	SPLICE 20	P14	--	--	L/OPT LIGHTS - GROUND
1267J	18	WH	SPLICE 22	P15	--	--	L/OPT LIGHTS - GROUND
1267K	18	WH	SPLICE 23	P16	--	--	L/OPT LIGHTS - GROUND
1267L	18	WH	SPLICE 23	P17	--	--	L/OPT LIGHTS - GROUND
1267M	18	WH	SPLICE 25	P9	--	--	L/OPT LIGHTS - GROUND
1267N	18	WH	SPLICE 26	P10	--	--	L/OPT LIGHTS - GROUND
1267P	18	WH	SPLICE 26	P11	--	--	L/OPT LIGHTS - GROUND
1267O	18	WH	SPLICE 27	P18	--	--	L/OPT LIGHTS - GROUND
1267R	18	WH	SPLICE 27	P19	--	--	L/OPT LIGHTS - GROUND
1268	18	WH	SPLICE 22	P29	--	--	DOOR INTERLOCK GROUND
1298	18	WH/GRN	P25	P29	F	--	DOOR INTERLOCK
1343	18	DK GRN	P14	SPLICE 30	C	--	L/OPT LIGHTS
1343A	18	DK GRN	P15	SPLICE 32	C	--	L/OPT LIGHTS
1343B	18	DK GRN	P16	SPLICE 34	C	--	L/OPT LIGHTS
1343C	18	DK GRN	P17	SPLICE 36	C	--	L/OPT LIGHTS
1343D	18	DK GRN	P13	SPLICE 40	C	--	L/OPT LIGHTS
1343E	18	DK GRN	SPLICE 45	SPLICE 38	--	--	L/OPT LIGHTS
1343F	18	DK GRN	P9	SPLICE 45	C	--	L/OPT LIGHTS
1343G	18	DK GRN	SPLICE 45	SPLICE 46	--	--	L/OPT LIGHTS
1343H	18	DK GRN	P10	SPLICE 46	C	--	L/OPT LIGHTS
1343J	18	DK GRN	SPLICE 46	SPLICE 28	--	--	L/OPT LIGHTS
1343K	18	DK GRN	P11	SPLICE 28	C	--	L/OPT LIGHTS
1343L	18	DK GRN	SPLICE 28	P12	--	--	L/OPT LIGHTS
1343M	18	DK GRN	P18	SPLICE 42	C	--	L/OPT LIGHTS
1343N	18	DK GRN	P19	SPLICE 44	C	--	L/OPT LIGHTS
2610	12	GY	P25	SPLICE 48	B	--	L/OPT DOOR LOCKS - LOCK
2610A	18	GY	SPLICE 2	P5	--	--	L/OPT DOOR LOCKS - LOCK
2610B	12	GY	SPLICE 2	SPLICE 4	--	--	L/OPT DOOR LOCKS - LOCK
2610C	18	GY	SPLICE 4	P6	--	--	L/OPT DOOR LOCKS - LOCK
2610D	12	GY	SPLICE 4	SPLICE 6	--	--	L/OPT DOOR LOCKS - LOCK
2610E	18	GY	SPLICE 6	P7	--	--	L/OPT DOOR LOCKS - LOCK
2610F	18	GY	SPLICE 6	P8	--	--	L/OPT DOOR LOCKS - LOCK
2610G	12	GY	SPLICE 48	SPLICE 8	--	--	L/OPT DOOR LOCKS - LOCK
2610H	18	GY	SPLICE 8	P1	--	--	L/OPT DOOR LOCKS - LOCK
2610J	12	GY	SPLICE 8	SPLICE 10	--	--	L/OPT DOOR LOCKS - LOCK
2610K	18	GY	SPLICE 10	P2	--	--	L/OPT DOOR LOCKS - LOCK
2610L	12	GY	SPLICE 10	SPLICE 12	--	--	L/OPT DOOR LOCKS - LOCK
2610M	18	GY	SPLICE 12	P3	--	--	L/OPT DOOR LOCKS - LOCK
2610N	18	GY	SPLICE 12	P4	--	--	L/OPT DOOR LOCKS - LOCK
2610P	12	GY	SPLICE 48	SPLICE 2	--	--	L/OPT DOOR LOCKS - LOCK
2612	12	PU	P25	SPLICE 47	B	--	L/OPT DOOR LOCKS - UNLOCK
2612A	18	PU	SPLICE 7	P1	--	--	L/OPT DOOR LOCKS - UNLOCK
2612B	12	PU	SPLICE 7	SPLICE 9	--	--	L/OPT DOOR LOCKS - UNLOCK
2612C	18	PU	SPLICE 9	P2	--	--	L/OPT DOOR LOCKS - UNLOCK
2612D	12	PU	SPLICE 9	SPLICE 11	--	--	L/OPT DOOR LOCKS - UNLOCK
2612E	18	PU	SPLICE 11	P3	--	--	L/OPT DOOR LOCKS - UNLOCK
2612F	18	PU	SPLICE 11	P4	--	--	L/OPT DOOR LOCKS - UNLOCK
2612G	12	PU	SPLICE 47	SPLICE 1	--	--	L/OPT DOOR LOCKS - UNLOCK
2612H	18	PU	SPLICE 1	P5	--	--	L/OPT DOOR LOCKS - UNLOCK
2612J	12	PU	SPLICE 1	SPLICE 3	--	--	L/OPT DOOR LOCKS - UNLOCK
2612K	18	PU	SPLICE 3	P6	--	--	L/OPT DOOR LOCKS - UNLOCK
2612L	12	PU	SPLICE 3	SPLICE 5	--	--	L/OPT DOOR LOCKS - UNLOCK
2612M	18	PU	SPLICE 5	P7	--	--	L/OPT DOOR LOCKS - UNLOCK
2612N	18	PU	SPLICE 5	P8	--	--	L/OPT DOOR LOCKS - UNLOCK
2612P	12	PU	SPLICE 47	SPLICE 7	--	--	L/OPT DOOR LOCKS - UNLOCK

TERMINAL LIST

TERM	DESCRIPTION	PART NUMBER
A	TERMINAL, FEMALE, 18-20 GA, SERIES 1, PACKARD	1996636
B	TERMINAL, PIN, 12-16 GA, CPC, SERIES 3, AMP	1077502
C	TERMINAL, SOC, 16-18 GA, 150 SERIES, M/P	1526318
D	TERMINAL, BLADE, 16-18 GA, 150 SERIES, M/P	1816321
E	TERMINAL, SOCKET, 18-20 GA, W/P	1605724
F	SEAL, WIRE, CBL/DIA, 080-, 112, GN	1613108
	TERMINAL, PIN, 14-18 GA, AMP	1077486

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COMPONENT LIST

COMP	DESCRIPTION	PART NUMBER
P1	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P2	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P3	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P4	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P5	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P6	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P7	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P8	CONNECTOR, 2 CIRC, F, PACK-CON, PACKARD	1996693
P9	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952324
P10	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1837681
P11	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952324
P12	CONNECTOR, 2 CIRC, M, 150 SERIES, M/P	1837681
P13	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952332
P14	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952365
P15	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952324
P16	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1837681
P17	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952324
P18	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1837681
P19	CONNECTOR, 2 CIRC, F, 150 SERIES, M/P	1952324
P20	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P21	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P22	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P23	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P24	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P25	CONNECTOR, 16 CIRC, CAP, CPC, SERIES 4, AMP	1971050
P26	CLAMP, STRAIN RELIEF, W/O SEAL, CPC, AMP	2264349
P27	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P28	SWITCH, MERCURY, METAL CASE, INSL, TSS-12	3928017
P29	CONNECTOR, 2 CIRC, TOWER, W/P	1161868

DIODE
 SPOT TAPE
 COMPONENT NUMBER
 103-5
 START OR FINISH CIRCUIT NUMBER
 SPLICE NUMBER
 TAPE
 LOOM

TOLERANCE OF ALL DIMENSIONS IS .015" UNLESS OTHERWISE SPECIFIED.
 DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

DR. 01/11/98 BY AL
 APP. 04/06/98 BY AL

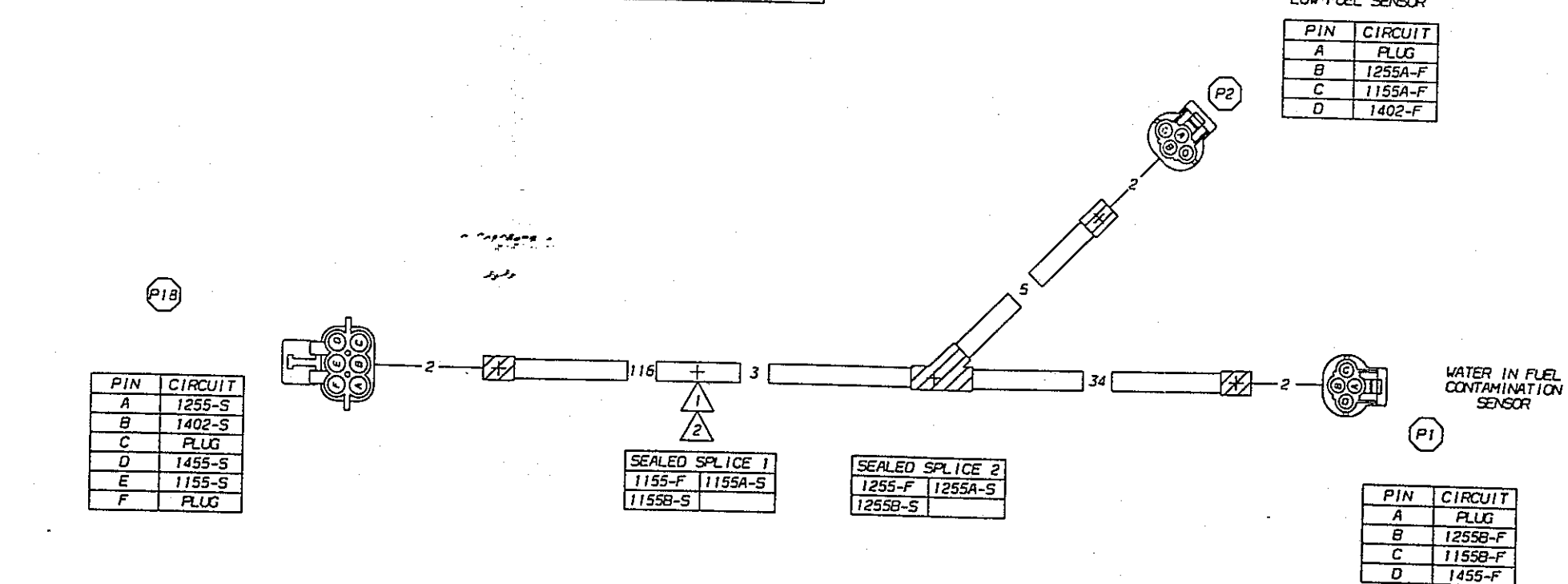
SCALE
 NONE

WAVE

1996735

2 OF 2

WIRE LIST						
CIRC	GA	WIRE COLOR	LOCATION		TERMINAL	
			START	FINISH	START	FINISH
1155	16	BK	P18	SPLICE 1	A	--
1155A	16	BK	SPLICE 1	P2	--	A
1155B	16	BK	SPLICE 1	P1	--	A
1255	16	WH	P18	SPLICE 2	A	--
1255A	16	WH	SPLICE 2	P2	--	A
1255B	16	WH	SPLICE 2	P1	--	A
1402	16	TN	P18	P2	A	A
1455	16	TN	P18	P1	A	A
CIRCUIT DESCRIPTION						
FUEL SENSOR POWER						
LOW FUEL SENSOR POWER						
WATER IN FUEL SENSOR PWR						
FUEL SENSOR GROUND						
FUEL SENSOR GROUND						
FUEL SENSOR GROUND						
LOW FUEL LAMP						
WATER IN FUEL LAMP						



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 10. DIMENSIONS ARE FROM BREAKOUT TO BREAKOUT, SPLICE TO BREAKOUT, BREAKOUT TO END OF EYELET, OR FROM BREAKOUT TO MATING END OF TERMINAL OR CONNECTOR.
 11. RING TERMINALS SHALL BE INSULATED AND ENVIRONMENTALLY SEALED USING HEAT SHRINK.
 12. ALL HARNESSES OR ASSY'S MUST COMPLY WITH A SPECIFIC BLUE BIRD DRAWING, AND CAN NOT CONTAIN SOLDERED CRIMPS. SOLDERED CRIMPS ARE CONSIDERED TO BE "REPAIR CRIMPS" AND ARE NOT ACCEPTABLE FOR AN OEM PRODUCT.

COMPONENT LIST		
COMP	DESCRIPTION	PART NUMBER
P1	CONNECTOR, 4 CIRC, F, 150 SERIES, M/P	1876671
	LOCK, SEAL, SECD, 2CIRC, 150 SERIES, M/P	1461458
	PLUG, CAVITY, 1 WAY, 150 SER, M/P + MIC/P	1793132
P2	CONNECTOR, 4 CIRC, F, 150 SERIES, M/P	1876671
	LOCK, SEAL, SECD, 2CIRC, 150 SERIES, M/P	1461458
	PLUG, CAVITY, 1 WAY, 150 SER, M/P + MIC/P	1793132
P18	CONNECTOR, 6 CIRC, F, 150 SERIES, M/P	1944966
	LOCK, SEAL, 6 CIRC, TPA, 150 SERIES, M/P	1811993
	PLUG, CAVITY, 1 WAY, 150 SER, M/P + MIC/P	1793132

TERMINAL LIST		
TERM	DESCRIPTION	PART NUMBER
A	TERMINAL SOC, 16-20 GA., 150 S, M/P	1460922
	SEAL, WIRE, CBL., 080-.112, RD, 150 S, M/P	1461466

DIODE	SPOT TAPE	COMPONENT NUMBER
103-S	START OR FINISH CIRCUIT NUMBER	SPLICE NUMBER
TAPE	LOOM	
DO NOT SCALE	DATE	BY
1954130	9/21/98	RV
10/16/98	BY	RV
BLUE BIRD CORPORATION FORT VALLEY, GEORGIA, U.S.A.		
HARNESS, WRG, FUEL SENSORS, HC9		
WIRE		
0005727		

PACKARD WEATHERPACK CONNECTORS

1401652HHCCHART, WAG, CONNECTORS, PACKARD WEATHERPACK 12148K\$01ALDL

DETAIL	BLUE BIRD NUMBER	DESCRIPTION	APPROVED MANUFACTURER AND NO.	APPROVED TOOLING/SPECIAL INSTRUCTIONS
	1113299	CONNECTOR, 3 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12015793	MATES TO 1154574; IN-LINE CONNECTION: USE TERMINAL 1154541, PANEL CONN: USE TERMINAL 1113307, SHOWN FROM CABLE INSERTION END. KEYED ON PINS A & C, SHOWN FROM MATING END.
	1154558	CONNECTOR, 1 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12010996	MATES TO 1154556; IN-LINE CONNECTION: USE TERMINAL 1113307, PANEL CONNECTION: USE TERMINAL 1154541.
	1154566	CONNECTOR, 1 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12015791	MATES TO 1154558; IN-LINE CONNECTION: USE TERMINAL 1154541, PANEL CONNECTION: USE TERMINAL 1113307.
	1154574	CONNECTOR, 3 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12010717	MATES TO 1113299; IN-LINE CONNECTION: USE TERMINAL 1113307, PANEL CONNECTION: USE TERMINAL 1154541.
	1154616	CONNECTOR, 6 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12010975	MATES TO 1154624; IN-LINE CONNECTION TERMINALS: 14-16 GA 1113307, 18-20 GA 1605716 PANEL CONNECTION TERMINALS: 14-16 GA 1154541, 18-20 GA 1605724 MATES TO 1154616; IN-LINE CONNECTION TERMINALS: 14-16 GA 1154541, 18-20 GA 1605724 PANEL CONNECTION TERMINALS: 14-16 GA 1113307, 18-20 GA 1605716
	1154624	CONNECTOR, 6 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12015799	MATES TO 1154616; IN-LINE CONNECTION TERMINALS: 14-16 GA 1154541, 18-20 GA 1605724 PANEL CONNECTION TERMINALS: 14-16 GA 1113307, 18-20 GA 1605716
	1161850	CONNECTOR, 2 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12010973	MATES TO 1161868; IN-LINE CONNECTION: USE TERMINAL 1113307, PANEL CONNECTION: USE TERMINAL 1154541.
	1161868	CONNECTOR, 2 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12015792	MATES TO 1161850; IN-LINE CONNECTION: USE TERMINAL 1154541, PANEL CONNECTION: USE TERMINAL 1113307.
	1461250	CONNECTOR, 4 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12015797	MATES TO 1895978; IN-LINE CONN: USE TERM. 1154541, PANEL CONN: USE TERMINAL 1113307.
	1839778	CONNECTOR, 4 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12020830	MATES TO 1844141; IN-LINE CONNECTION TERMINALS: 14-16 GA 1113307, 18-20 GA 1605716 PANEL CONNECTION TERMINALS: 14-16 GA 1154541, 18-20 GA 1605724
	1844141	CONNECTOR, 4 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12020832	MATES TO 1839778; IN-LINE CONNECTION TERMINALS: 14-16 GA 1154541, 18-20 GA 1605724 PANEL CONNECTION TERMINALS: 14-16 GA 1113307, 18-20 GA 1605716
	1895978	CONNECTOR, 4 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12010974	MATES TO 1461250; IN-LINE CONNECTION TERMINALS: 14-16 GA 1113307, 18-20 GA 1605716 PANEL CONNECTION TERMINALS: 14-16 GA 1154541, 18-20 GA 1605724
	1897982	CONNECTOR, 4 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12015024	MATES TO 1910231; CONNECTION: USE TERMINAL 1113307
	1910231	CONNECTOR, 4 CIRCUIT, TOWER, WEATHERPACK, PACKARD	PACKARD 12015798	MATES TO 1897982; CONNECTION: USE TERMINAL 1154541
	1934868	CONNECTOR, 3 CIRCUIT, TOWER, RED, WEATHERPACK, PACKARD	PACKARD 12015795	CONNECTION: USE TERMINAL 1605716 SHOWN FROM CABLE INSERTION END KEYED ON PIN C SHOWN FROM MATING END
	1940956	CONNECTOR, 3 CIRCUIT, TOWER, BK, WEATHERPACK, PACKARD	PACKARD 12020829	CONNECTION: USE TERMINAL 1605716 SHOWN FROM CABLE INSERTION END MATES TO 1942085
	1942085	CONNECTOR, 3 CIRCUIT, SHROUD, WEATHERPACK, PACKARD	PACKARD 12020827	KEYED ON PINS B & C SHOWN FROM MATING END MATES TO 1940956; IN-LINE CONNECTION: USE TERMINAL 1113307, PANEL CONNECTION: USE TERMINAL 1154541.
	1996701	CONNECTOR, 22 CIRCUIT, M, WEATHERPACK, PACKARD	PACKARD 12020005	MATES TO THERMO-KING A/C UNIT USE TYP. TERMINAL 1113307. USE LOCK 1996719 (2 REQ.)

NOTES:

- CONNECTOR/TERMINAL COMBINATIONS LISTED ARE PACKARD STANDARD. HOWEVER, SHROUDS AND TOWERS ARE BOTH APPROVED TO ACCEPT EITHER PIN OR SOCKET IF NECESSARY TO MATE TO EXISTING CONNECTORS.
- DETAIL VIEWS OF ALL CONNECTORS ARE SHOWN AS VIEWED FROM THE CABLE INSERTION END.

REV	DESCRIPTION	DATE	BY	CHKD
CG	SEE SHEET 2			
CG	ADDED 1996701			
FF	ADDED 1940956, 1942085 FOR CGN 12110A			
EE	ARRANGED IN BB ORDER			
DO	ADDED KEYING TO 1113299			
CC	SEE SHEET 2			
BB	ADDED 1914868			
AA	MOVED TERMINALS AND SEALS TO SHEET 2			
Z	ADDED PARTS PER CGN 120430 & E			
X	ADDED CONNECTOR PN 1895978			
V	REPLACED 14-16 GA TERMINAL			
U	REPLACED SPECIAL INSTRUCTIONS			
U	CHANGED CABLE DIAMETER			
T	CHANGED PN 1832330 FROM PIN TO SOCKET			
S	ADDED CABLE DIAMETER			
R	UPDATED VENDOR PART NUMBER			
Q	UPDATED VENDOR PART NUMBER			
P	UPDATED VENDOR PART NUMBER			
N	UPDATED VENDOR PART NUMBER			
M	ADDED COMPONENTS TO CHART			
LET	WAS			
REV	DESCRIPTION	DATE	BY	CHKD
CG	BLUE BIRD CORPORATION FORT VALLEY, GEORGIA, U.S.A.			
CG	CHART, WIRING, CONNECTORS, PACKARD WEATHERPACK			
CG	5-20-88 BY ATW			
CG	7-18-88 BY CH			
CG	1401652			