

THE AUTOPARK AUXILIARY LIGHT PACKAGE

This package consists of a group of memos, circuits, and diagrams, that describe an auxiliary dashboard light system. This system operates independently of, and *in addition* to the regular AutoPark dash light.

With the addition of this two light module, it is possible to monitor normal operation of the AutoPark system, and also detect potential problems. Even more importantly, it provides real attention-getting evidence of an imminent parking brake lockup.

This is a device that most forum members should be able to assemble and install themselves - - with parts costing less than 20 bucks. The following writeup describes the module in greater detail.

This is a suggestion for those who would like a lot more REAL TIME information about what their AutoPark system is doing. Use TWO lamps to augment the present single AutoPark lamp, making one yellow and one red.

NOTE: This modification pertains only to the Version II and Version III AutoPark systems that run off of a separate pump and reservoir. It DOES NOT apply to the earlier version that runs off of the power steering pump.

The red light is hooked up to the Light Switch - - sometimes referred to as the pressure switch. This light would go ON, any time the shift lever is in PARK, or any time the AutoPark system pressure drops below 450 psi.

The yellow light is hooked up to the pump/motor switch (RGS), so it would go ON any time the pump was running.

Make these lights both large enough and bright enough to catch your attention - - and place them where they are easily seen without taking your eyes off the road.

With this setup, any time you have the ignition ON, and the shift lever in PARK, the RED light will be ON.

Then, when you first shift out of PARK, into REVERSE, NEUTRAL, or one of the forward gears, the YELLOW light should come on for just a few seconds and go OFF.

Once per hour or so, while going down the road, the YELLOW light should go on for a few seconds - - This is called a maintenance cycle and indicates that the pump is running to keep up the pressure in the AutoPark system - - perfectly normal.

If the RED light goes ON while you are going down the road, it means that either you have lost pressure in the system (REALLY BAD), or that the light switch has failed (NOT QUITE SO BAD but needs to be fixed).

If the YELLOW light goes ON and STAYS ON at any time, that is VERY BAD - - It probably means your pump/motor switch (RGS) has failed and you need to take immediate action - - Starting with pulling off the road!

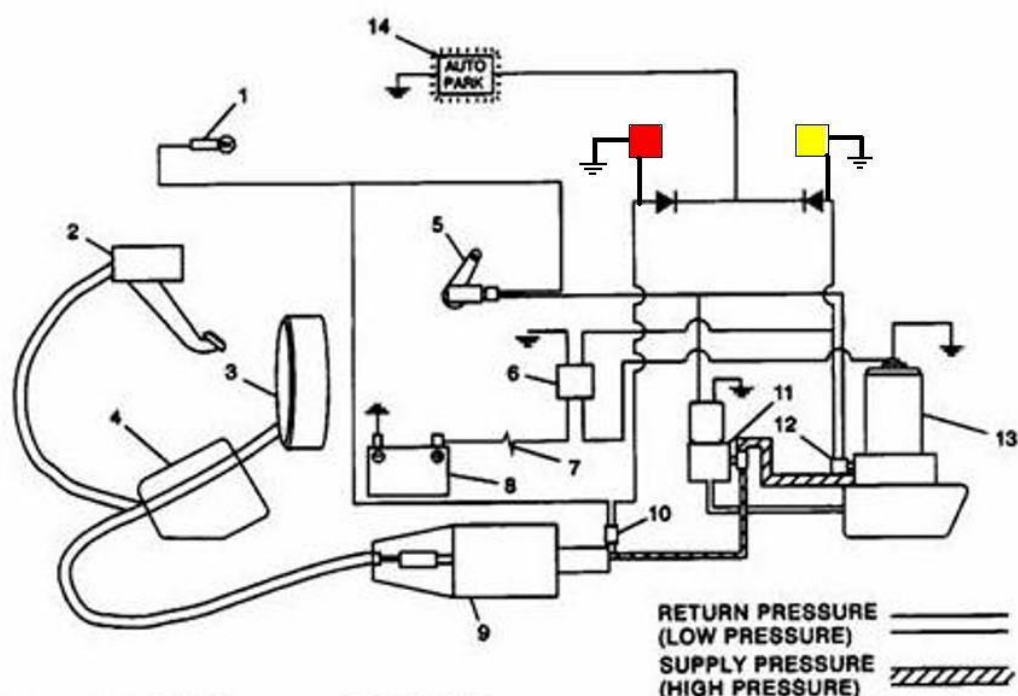
If BOTH YELLOW AND RED lights go ON, hit your warning flashers and turn signals and get OFF THE ROAD!! LOCKUP IS IMMINENT!!!!

The above setup will provide the driver with a LOT more information than can be obtained from the stock configuration of a single AutoPark warning lamp. Whereas the single lamp may serve to raise your suspicions (IF you happen to notice it), this dual lamp arrangement can tell you much more about the real time performance of the AutoPark system.

With this additional information, you can see at a glance if everything is normal, trouble is brewing, or if you have an emergency in progress.

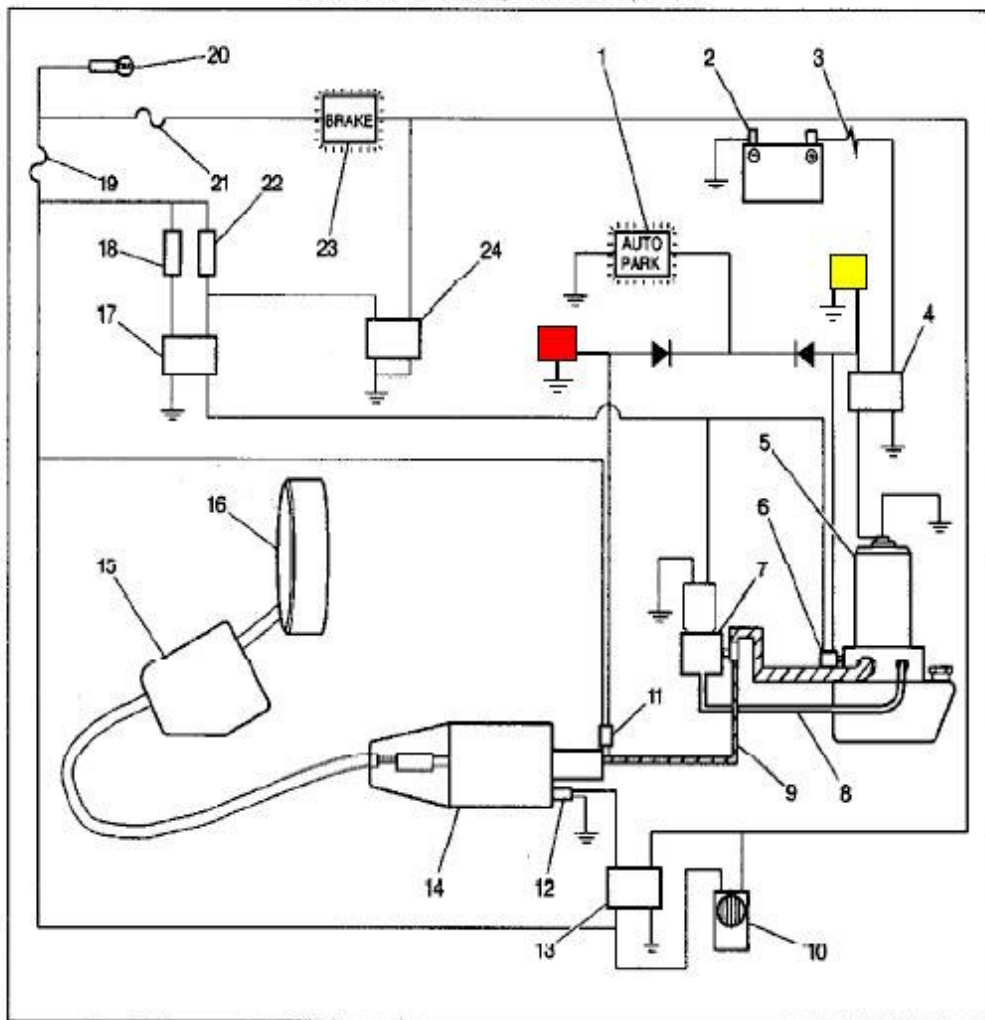
For those interested, we have modified versions of the block diagrams - - showing where to tie the red and yellow lamps into the existing circuit.

There are two circuits shown - - One for the earlier versions that have the foot pedal applied parking brake in addition to AutoPark, and another circuit for the later versions that have NO foot pedal for the parking brake, but only AutoPark and the yellow push-pull switch on the dashboard.



- | | |
|------------------------|---|
| 1. IGNITION SWITCH | 8. BATTERY |
| 2. FOOT LEVER ASSEMBLY | 9. HIGH PRESSURE ACTUATOR |
| 3. PARKING BRAKE | 10. LIGHT SWITCH |
| 4. DIFFERENTIAL LEVER | 11. SOLENOID VALVE |
| 5. CAM ACTUATED SWITCH | 12. PRESSURE MAINTENANCE SWITCH |
| 6. RELAY SWITCH | 13. ELECTRIC - HYDRAULIC PUMP AND RESERVOIR |
| 7. FUSIBLE LINK | 14. AUTO PARK LAMP |

Electric/Auto Parking Brake Components

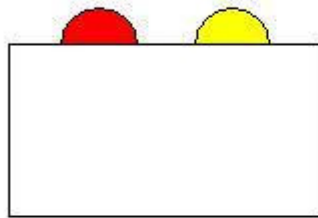


Legend

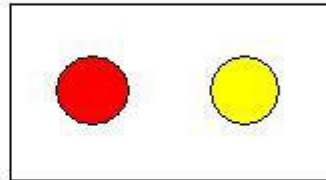
- | | |
|---|--|
| (1) AUTO PARK indicator lamp | (14) Actuator assembly |
| (2) Battery | (15) Differential lever |
| (3) Fusible link | (16) Parking brake |
| (4) Pump motor relay | (17) Park/Neutral position switch relay |
| (5) Pump and reservoir | (18) Park/Neutral position and backup lamps switch |
| (6) Pump motor switch | (19) A/A (Auto Apply) fuse 19 |
| (7) Solenoid valve | (20) Ignition switch |
| (8) Hydraulic return pipe (low pressure) | (21) GAUGES fuse 8 |
| (9) Hydraulic supply pipe (high pressure) | (22) Pull button switch |
| (10) Parking brake alarm | (23) BRAKE indicator lamp |
| (11) Pressure indicator switch | (24) Pull button relay |
| (12) Actuator position switch | |
| (13) Alarm relay | |

Below is a suggested configuration for the module. The parts can be purchased from your local Radio Shack (or similar) store. For trial purposes, I bought their 276-0270 twelve volt LED. It is REALLY bright and costs only 2 bucks. They have some nice little black plastic enclosures for 3 or 4 dollars. The necessary amount of 3 conductor, 18 gauge wire and some crimp connectors, completes the parts list for the module, but I would add a supply of wire ties for installation.

AUTOPARK AUXILIARY LIGHT MODULE



SIDE VIEW

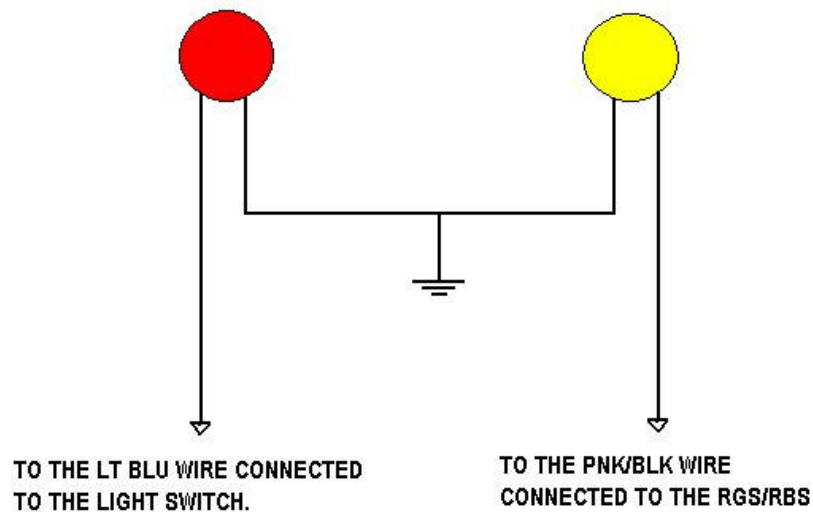


TOP VIEW

WE SUGGEST THE USE OF A SMALL PLASTIC UTILITY BOX TO HOLD THE LIGHTS. ALSO, THE LAMPS THEMSELVES SHOULD BE SOME SORT OF EASILY MOUNTED 12 VOLT LED. THE BRIGHTER THE BETTER. THESE ITEMS, AS WELL AS SOME FLEXIBLE AND WELL INSULATED WIRE, CAN BE OBTAINED AT RADIO SHACK OR ANY SIMILAR ELECTRONICS SUPPLY HOUSE.

As mentioned earlier, where the module is “tapped into” the coach wiring is a matter of choice and how much effort you are willing to expend. It is probably simpler to make the connections at the pump switch and at the light switch. It might be a neater and cleaner job to locate the correct wires under the dash, and make the connections there. Probably a lot more work to find them.

MAKING THE CONNECTIONS



CONSTRUCTION AND INSTALLATION TIPS FOR THE GENIE LAMP MODULE

All of the parts needed can be purchased at Radio Shack or similar electronics outlet. Basically, you will need something like a small plastic box for the components, unless you choose to mount the lamps directly into your dashboard.

Additionally, you will need a red LED, and a yellow LED (light emitting diode). These are small lamps which can be purchased in different sizes, colors, and outputs. You need ones which will work on 12 volts, are easily mounted in the little box or dashboard, and are bright. The choice of colors is optional - - we arbitrarily chose red and yellow. For trial purposes, we bought a Radio Shack #276-0270 red lamp for \$1.99 - - works great.

We **STRONGLY** recommend mounting the lamps up where they are easily seen without having to take your eyes off of the road. If there is doubt as to the best location, one could probably mount the unit with a good quality double-stick foam tape, or perhaps the stick-on Velcro tape. Either method should be suitable for trial purposes.

Your choice and amount of wire will depend on how and where you choose to make the connections, and where the AutoPark components are located in your coach. On earlier versions, both connections could be made either in the AutoPark goodie box under the coach, passenger side, on the frame rail near the tranny.

A neater, cleaner, but more difficult job, would be to locate the two correct wires under the dashboard. This will take some investigation however. According to our factory info, the one from the RGS should be

pink and black. The one from the light switch, should be light blue. That still may not be much help when trying to sort through the usual maze of wiring under the dash.

On the newer versions of AutoPark circa 2001 and later, the light switch is still under the coach by the tranny, but the pump and RGS are located under the utility hood at the front of the coach. So one wire will need to go down under the coach by the tranny, and the other wire will need to go forward under the utility hood. Or, both connections could be made under the dashboard - - as mentioned above.

Regardless of where you choose to tap into the present system, we recommend using well insulated, flexible wire of 18 gauge or larger. It should be carefully routed to avoid hot spots from the exhaust or engine, and sharp edges which could cut through the insulation. A good supply of wire ties will be worthwhile. Some sort of rubber or plastic grommets should be used if going thru holes in metal. Routing the wire may turn out to be the most challenging part of the job.

The method of actually making the connection where tapping into the existing wiring is another matter of choice. Some people have had good luck with the clamp-on type of quick connectors - - commonly supplied with stereo accessories and such. I personally prefer to carefully scrape the insulation on the wire to be tapped into, clamp the wires with a tiny U-bolt type of connector, and then carefully tape the whole connection. A small wire tie over the tape will help to insure the quality of the connection over a long period of time. Soldering and taping can also produce a reliable joint. Cheap electrical tape tends to degrade with time and heat - - the better stuff is worth the extra money.

As always, questions and comments can be directed to oldusedbear at rhaag@nwtec.com

We'll help if we can.

