

## U.S. 986/996 Front Fender Side Marker Light Circuit Modification



Mouse over each image above to view turn signal operation.

Click on each image in the paragraphs below to enlarge.

### Introduction

This modification provides the following features on a U.S. (not Canadian) 986/996: When a turn is selected and the exterior lights switch is OFF, the appropriate front fender marker light will flash in step with the turn signal lights (see left image). When the exterior lights switch is ON (both clockwise positions), the appropriate front fender marker light will flash alternately with the turn signal lights (see right image). Also, when the exterior lights switch is ON, both front fender marker lights will illuminate steadily if no turn is selected.

The following procedures may appear complex at first glance because they are carefully detailed for the most part. No additional major components are installed in the lighting system, only 2 lengths of hookup wire and 4 splices. Simplifying: These procedures cut the ground connection at each side marker light socket and an 18 inch piece of hookup wire is spliced between the light socket and the turn signal wiring on the corresponding side of the car.

### Disclaimer

These procedures have been prepared to describe the modification steps performed on the author's U.S. 1999 996. Although this modification has also been performed on a U.S. 2000 986S, no claims are made regarding the modification's applicability for any other 986 or 996. Anyone attempting to duplicate these results must be experienced in working on auto electrical and lighting systems and be familiar with the applicable safety practices and procedures involved. This modification may affect a 986 or 996's warranty and may conflict with local auto lighting laws. The author assumes no responsibility for any resulting effects to your 986 or 996. You are on your own if you choose to perform this modification.

### Materials Required

1. 6 ft. of #20 AWG stranded hookup wire (includes extra wire).
2. 4 crimp-type insulated butt splices (for 20-22 AWG wire).

**Note:** 2 tap-in connectors (for 20-22 AWG wire) may be used in place of 2 of the butt splices.

3. 6 inches of heat-shrink tubing of the appropriate diameter for moisture protection of 2 of the splices being used.

### Preliminary Operational Check (before modification)

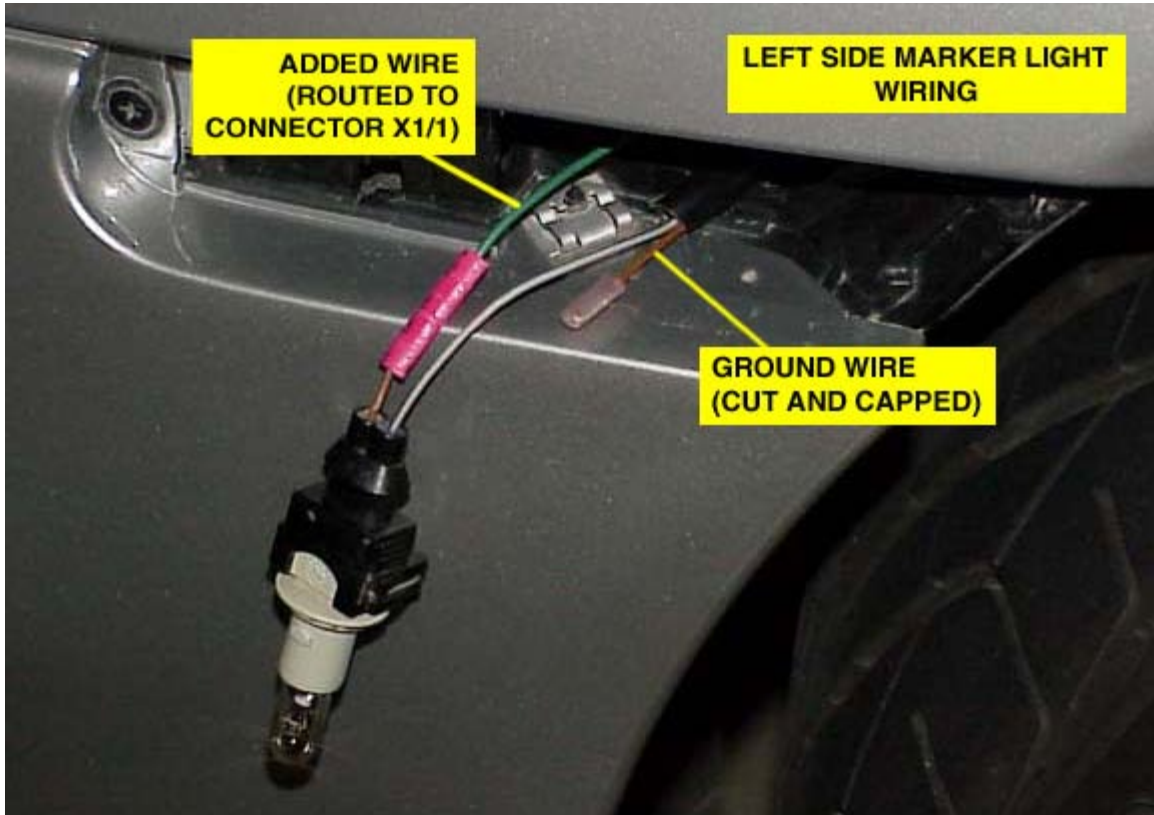
1. Turn on the ignition and check for normal operation of ALL exterior lights and turn signal lights. The fender-mounted marker lights should illuminate when the exterior lights are on. The appropriate fender marker light should also operate in each of the two "Park" positions of the exterior lights switch (the 2 most counterclockwise switch positions, when the ignition is OFF).
2. Be sure the turn signal lights are not flashing faster than normal when selecting a turn in each direction. If they are flashing faster than normal, there is most likely a burned-out bulb or an open circuit in a turn signal light on the corresponding side of the car.
3. Correct all exterior light malfunctions before continuing.

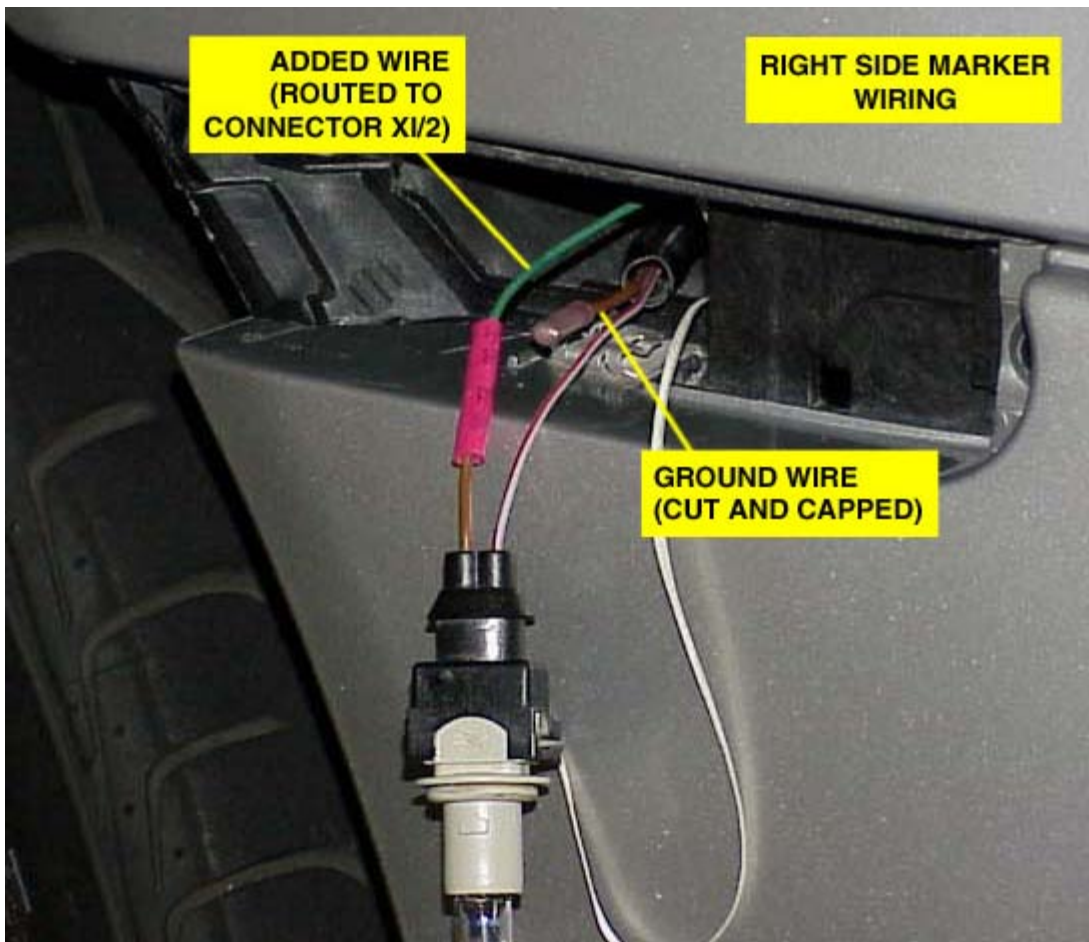
## Preparation

1. Ensure the exterior lights are off. Disconnect and remove the front trunk's interior light assembly and remove the large protective black plastic shroud surrounding the brake fluid reservoir.
2. Pull both trunk side liners inboard to allow use of the headlight removal tool and to also access the two rubber grommets through which the existing left and right headlight wire harnesses are routed.
3. Remove both headlight assemblies and both fender-mounted side marker light assemblies per the Owner's Manual instructions.

## Hookup

1. At each side marker light socket, cut the BROWN ground wire at least an inch or more from the end of the light socket. The wire harness' plastic sleeving may need to be slit or trimmed to expose more of the brown wire's length.





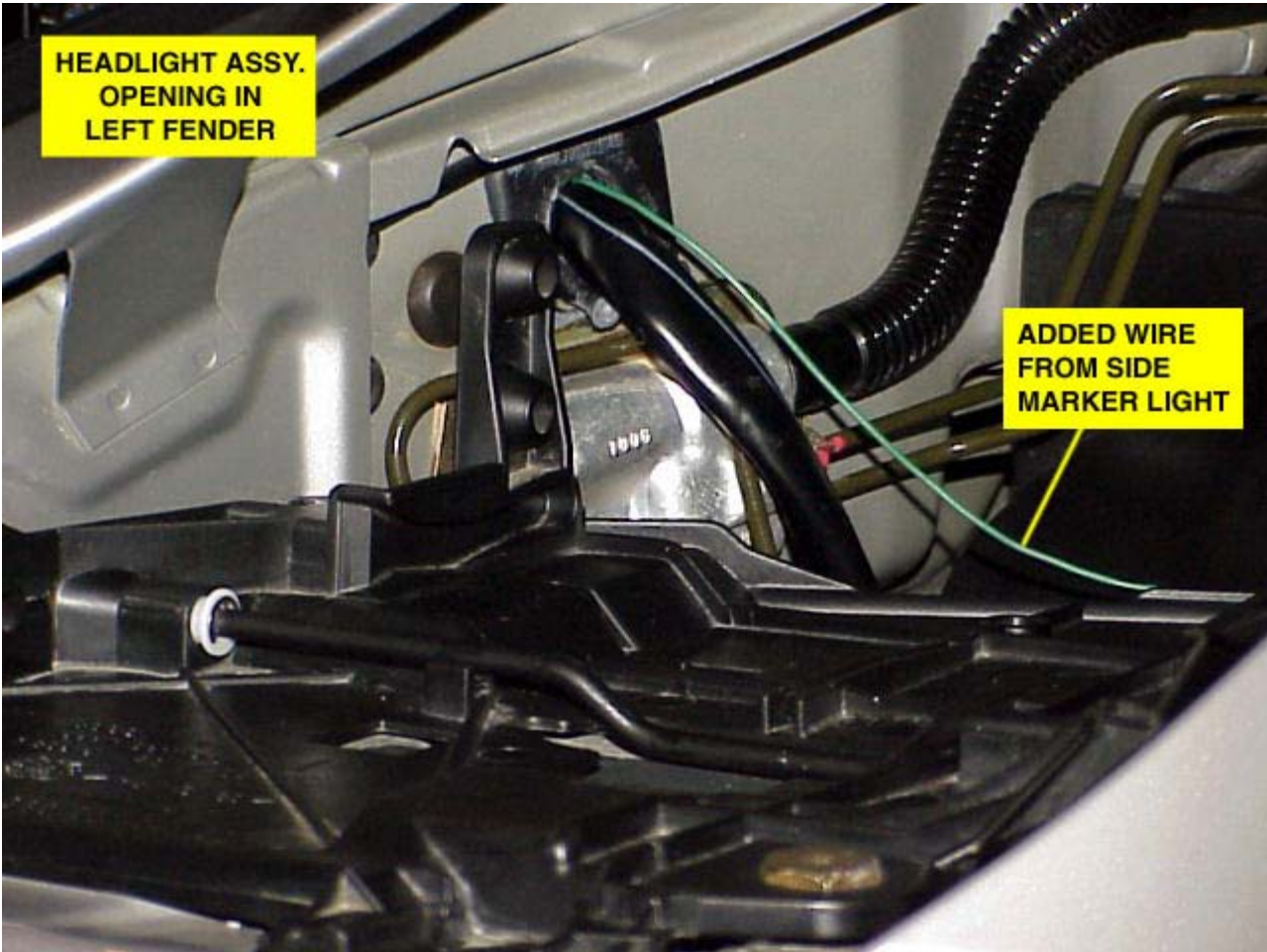
2. At each side marker light socket, splice a 3 ft. length of hookup wire to the end of the cut brown wire which is connected to the light socket. DO NOT splice to the cut end of the brown wire which is leading to the interior of the car through the sleeving. The end of the brown wire in the sleeving may be left unterminated since it leads to ground. DO NOT alter the other wire on each socket. Note: The loop of white cord shown attached to the bulb socket in the right side marker wiring picture has no significance in this modification.

3. Cut 2 lengths of heat-shrink tubing at least one inch longer than the splices being used. Slide the tubing over the end of each length of hookup wire, center the tubing over each splice and shrink it tightly around the splice AND connecting wires. If the tubing cannot be shrunk tightly around the splices, other methods (such as the use of electrical tape) should be used to protect the splices from moisture.



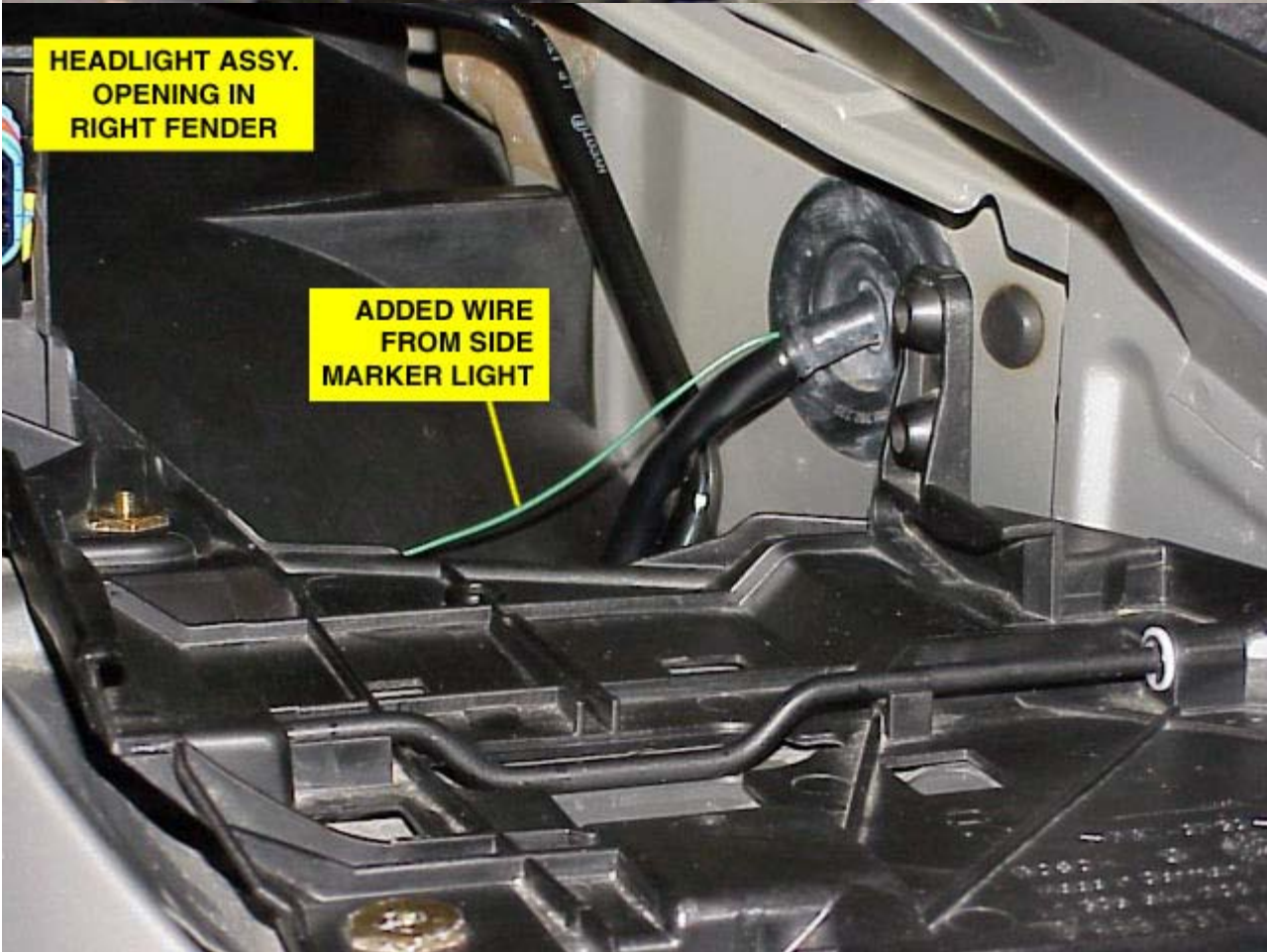
**HEADLIGHT ASSY.  
OPENING IN  
LEFT FENDER**

**ADDED WIRE  
FROM SIDE  
MARKER LIGHT**

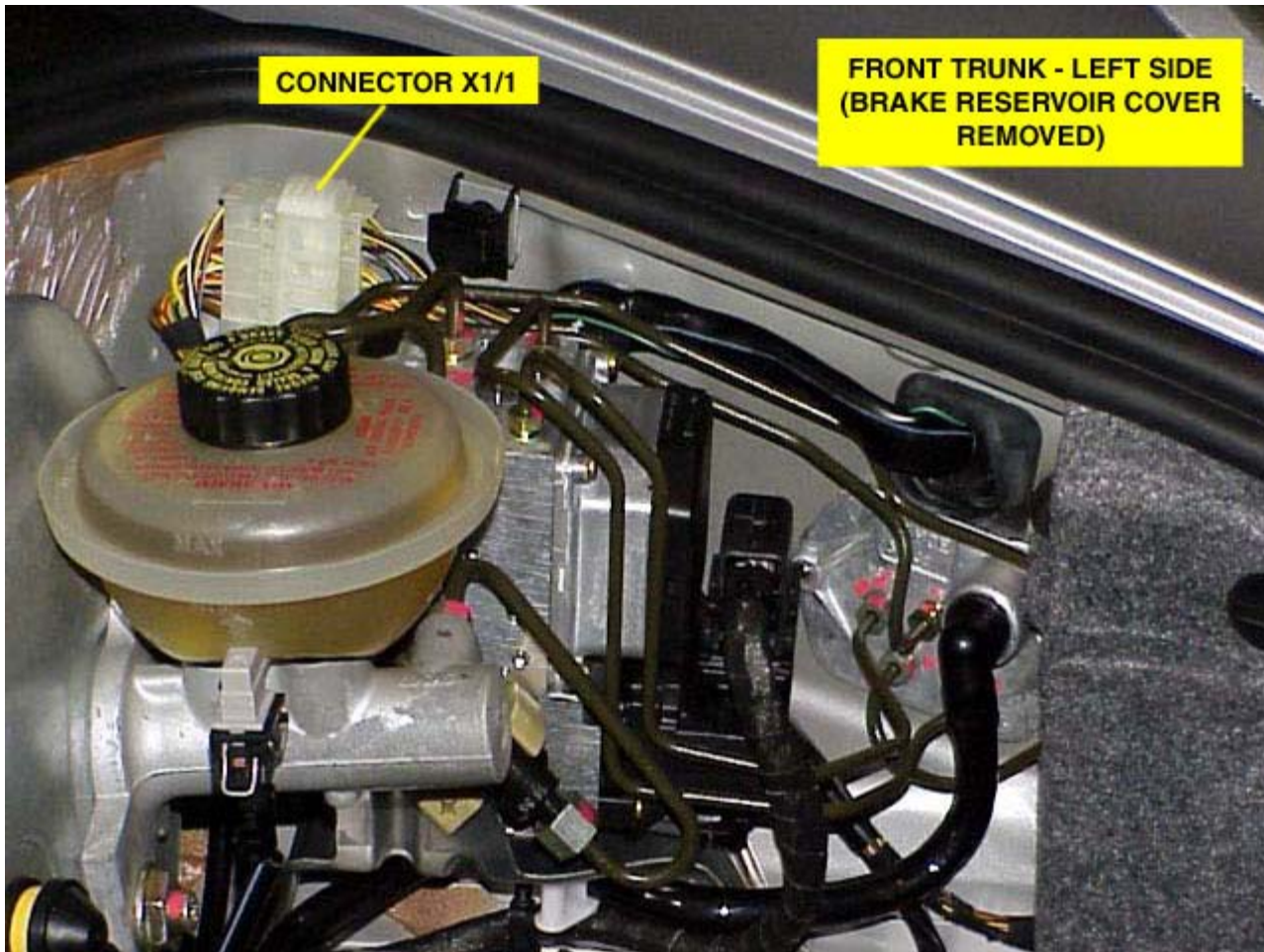


**HEADLIGHT ASSY.  
OPENING IN  
RIGHT FENDER**

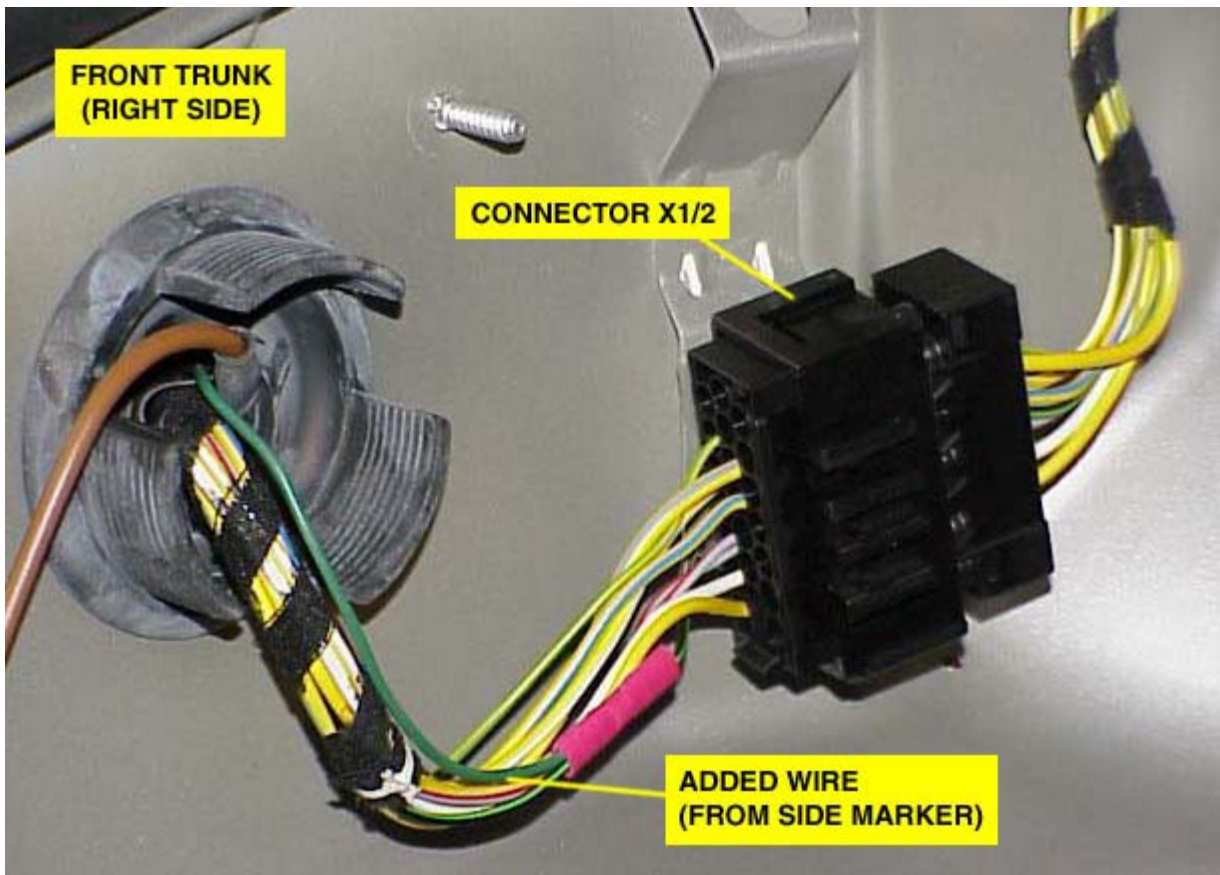
**ADDED WIRE  
FROM SIDE  
MARKER LIGHT**



4. Route the end of each length of hookup wire into the trunk interior through the rubber grommet used for routing each headlight wire harness. The grommets are located on the inboard side of each headlight assembly opening in the fender. This can be accomplished easily by CAREFULLY pushing a pointed tool through the grommet under the edge which is adjacent to the harness surface. This will provide a path for the wire being threaded.



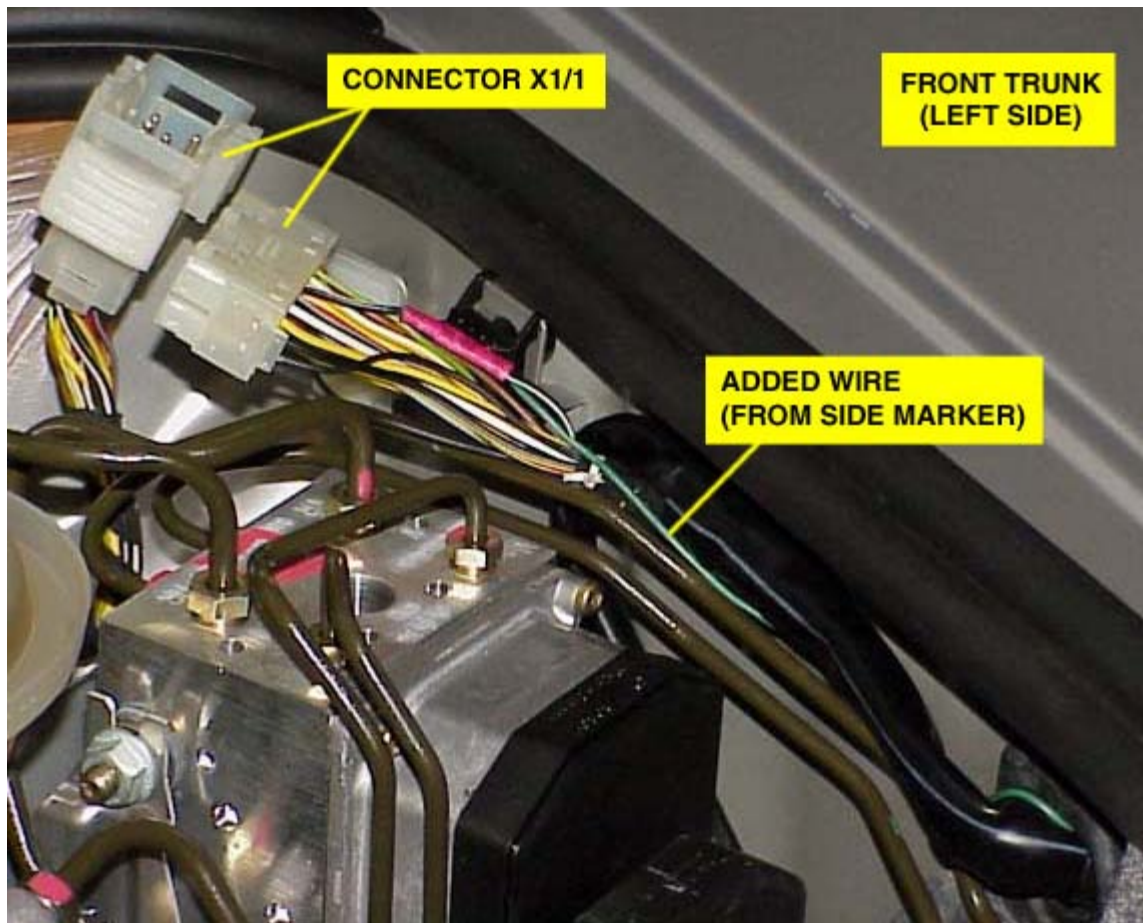




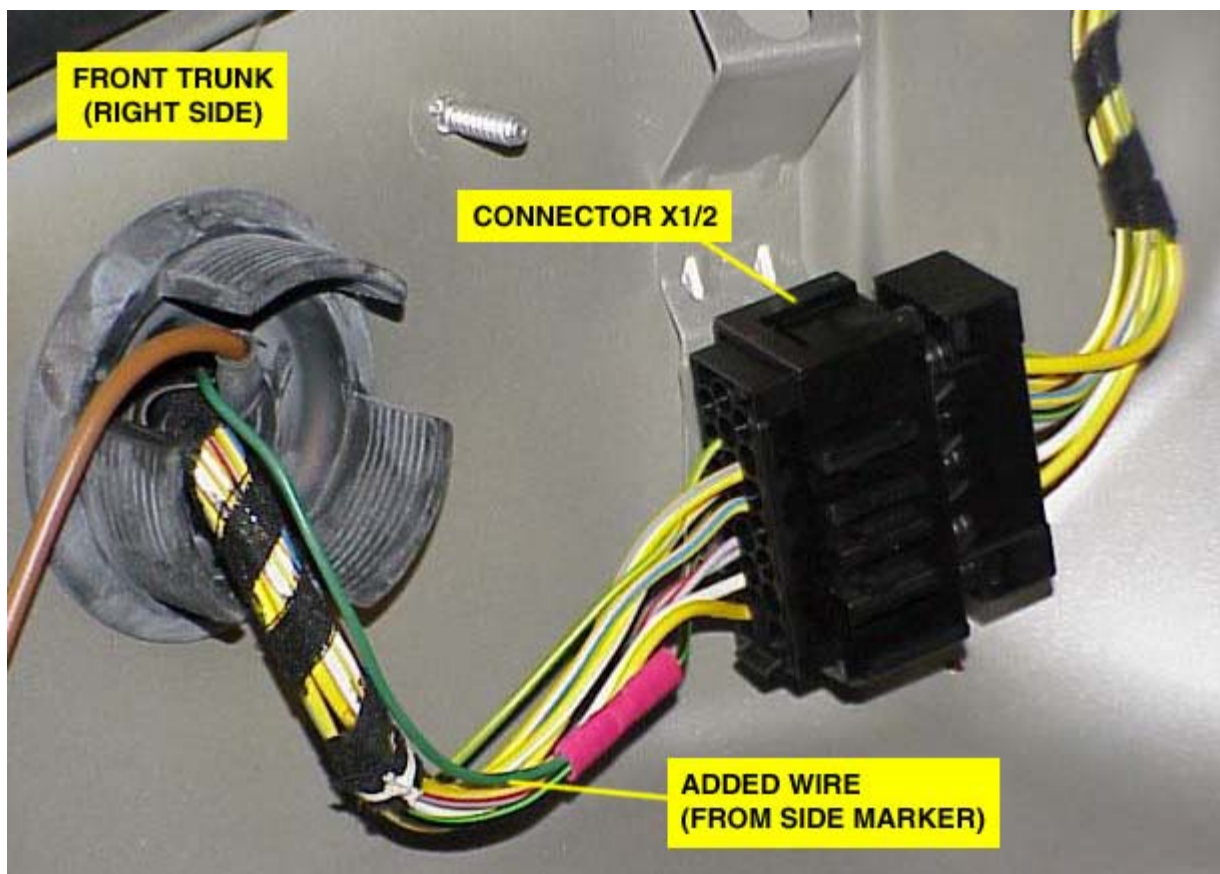
5. Route each length of hookup wire towards the rear of the trunk, along the edge of each headlight wire harness and up to the large electrical connector mounted on each side of the trunk (connectors X1/1 - left, X1/2 - right).

6. Before trimming each length of hookup wire in the following step, be sure each wire is left long enough (has enough slack) for the headlight assemblies to slide into their mounts (trays) without being obstructed. Also, be sure there is enough slack so each side marker lamp may be easily removed from its fender.

7. Trim each length of hookup wire as required and splice (parallel) it to the appropriate wire listed below, using butt splices or tap-ins:



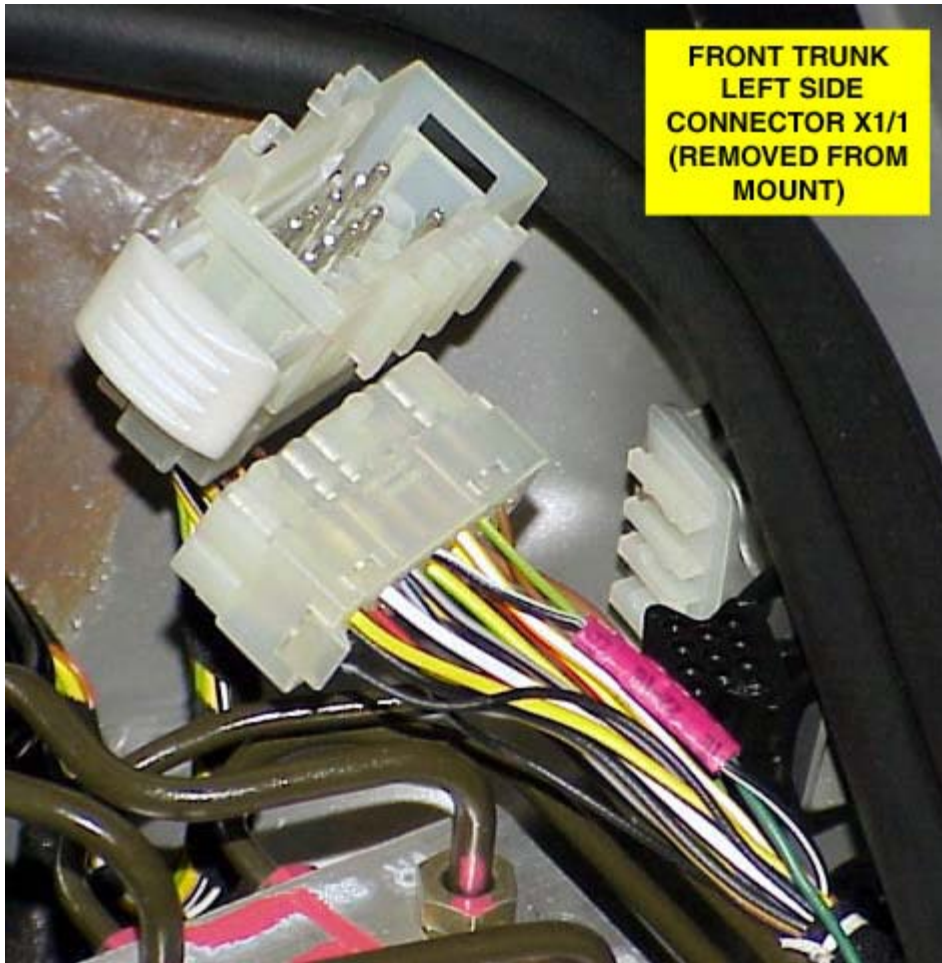
Left side - BLACK/WHITE - (black with white stripe - turn signal wire)





Right side - BLACK/GREEN (black with green stripe - turn signal wire)

**Note, IMPORTANT:** On the left side, the BLACK/WHITE wire is SMALLER in diameter (thinner) than the WHITE/BLACK (white with black stripe) wire seen at the same connector. The thicker wire is used for high beam circuitry. To verify you have the correct wire, the BLACK/WHITE wire is at pin #7 of the connector. Also, note that PAG grey appears to be almost the same color as PAG white. Do not confuse the two colors.



**Note:** It may be easier to accomplish step 7. (especially when installing butt splices) if the two halves of each electrical connector are separated temporarily. To do this, pull on the square ribbed cap at the edge of each electrical connector pair. To reconnect, push both halves tightly together, and push HARD on the ribbed cap to ensure they lock together.

8. Secure each length of hookup wire to the adjacent headlight wire harness with a plastic tie or electrical tape.

## Completion

1. Reinstall both headlight assemblies per the Owner's Manual instructions.

**Note: IMPORTANT:** Ensure that both headlight assemblies are fully secured. A loud "snap" or "bang" will be heard when the engagement mechanism rotates completely into its locked position.

2. Reinstall both side marker light assemblies per the Owner's Manual instructions.

3. If the trunk electrical connectors were separated, be sure they are reconnected properly (see **Note:** in **Hook-Up**, step 7.).

## Final Operational Check

Repeat the procedures in the **Preliminary Operational Check**.

The only differences which should be observed from normal operation of the exterior lights are the features being added by this



