

## Third "Eye" Brake Light By Carl Doro

There is a problem with today's drivers not recognizing an amber light as a brake light.

The second problem is that the taillights on our cars are not very bright and they do not reflect very well.

I corrected the first problem easily by converting the amber to directional and replacing the lower socket with a dual contact for tail and brake lights. This cures the problem with the color of the brake light but does not address the issue of attention getting during braking.

Vehicles with rear-mounted spares may be able to use the following safety addition. The only modification to the car is connection to the wiring harness for the brake light.



The light fits into the hubcap area of the spare.

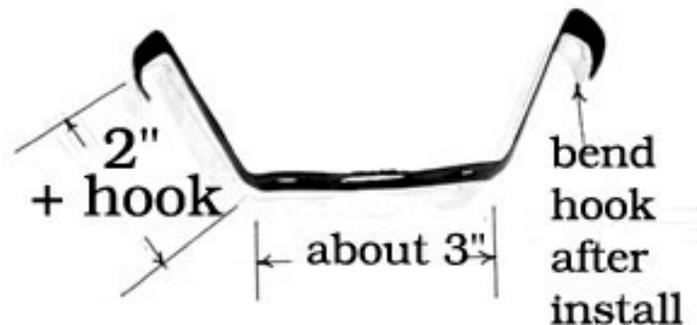
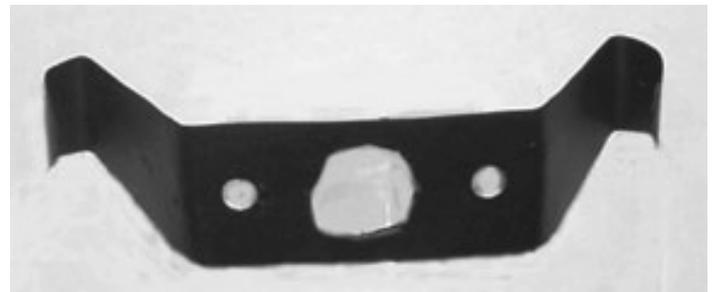
Purchase a "Universal stop, turn, and tail" light from the auto parts store. I used a unit manufactured by PM, part number V428S. Correctly sized lights from others will fit if they have a 3-3/4 inch lens and 3-1/2 inch diameter body. Don't use the units with built-in license lights. Increase the brightness of the light by painting the inside with aluminum paint.



Note: Dimensions shown are for a '31. Other years and rims may require alterations.

Create a mounting bracket for the front of the light using light gauge metal. Taper the ends to about 3/4 inches wide to allow for bending hooks over the rim.

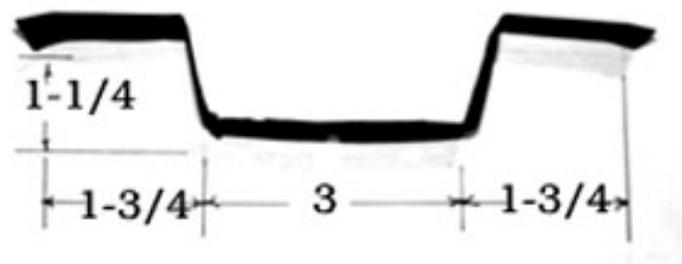
Drill holes for the mounting bolts and wires. Wire opening must prevent chafing



Mount bracket to light body, then insert into rim and bend over hooks to locate.

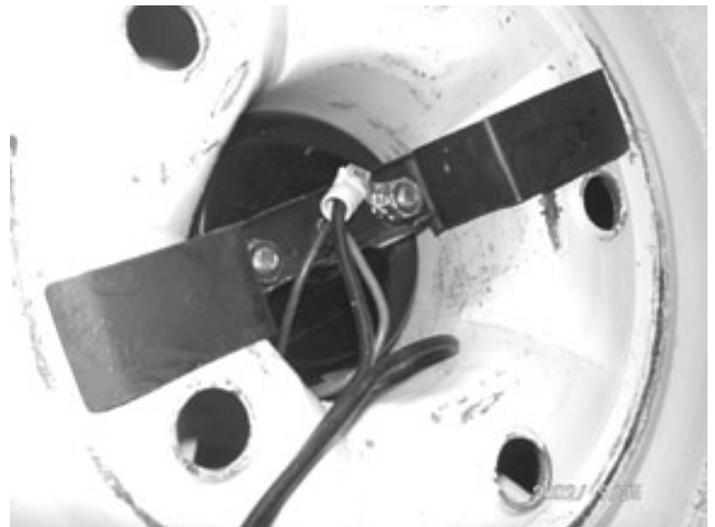


Create a rear bracket to hold the unit in the rim.



The rear bracket should be made from slightly heavier gauge metal for stiffness. It only prevents the light from falling out of the rim and is held in place by pressure from the lug bolts when the wheel is mounted on the car. Check dimensions for your application. The next figure shows how the assembly

works. The rim is not shown for clarity. Remove the rear bracket and install the unit into the rim. Attach the rear bracket with wing nuts to allow for easy removal of the spare tire assembly.



The unit is supplied with a 12 volt #1157 bulb. If this assembly is used on 6 volts, install a #1154 bulb. Only connect the bright (brake) light lead (usually the red) because it will act like today's third brake light and no socket change is necessary.

Purchase an extension cord used for house lamps. Check to insure one blade of the male end is slightly larger. One opening in the female end should be larger. This will prevent polarity problems. You will need to use both ends including plug and socket. Cut about 3 feet from the plug end and attach the cut end to the new rim light leaving the male end loose. Mark the wires for hot and ground. These cords have one conductor with extra ribs on the insulation so use that as a marker. Connect one lead to the bulb hot and the other to ground on the rim light. Use the remaining

part of the extension cord to connect to the existing brake light wiring and ground allowing the female end to hang loose. Observe polarity. Plug the male end from the rim light into the female end from the existing brake light. You should have a safer car and avoid rear end collisions by getting those tailgaters attention. Happy and safe touring.