Installation Instructions
Relay Wiring Kit for Two Lights

Thanks for choosing a KC HiLiTES product. We take pride in building the highest quality, best engineered systems possible. Your satisfaction with our product is important, so if you have any questions, please call our customer service line at 800-528-0950.

1. PARTS INCLUDED IN YOUR WIRING KIT...

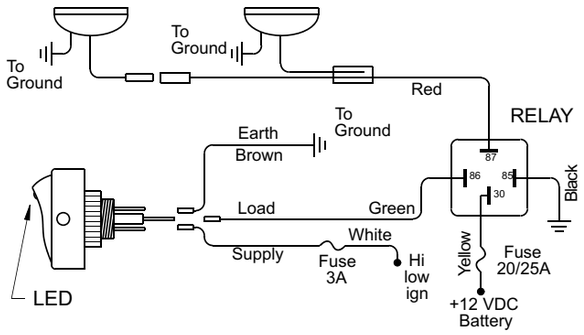
1 - Relay	12 ft. green wire
6 - Tyraps	16 ft. white wire w/3A fuse
1 - Switch	8 ft. red wire
1 - Panel	18 in. brown wire
1 - Wire splice connector	18 in. yellow wire w/20 or 25A fuse
5 - Screws	6 in. black wire
23 ft. protective tubing	1 - Wire splice bullet connector

2. MOUNT 'EM UP...

DRIVING LIGHTS - Where you mount your driving lights is extremely important, as well as aiming the units. Too high and they will bounce right back at you and you'll be trying to look through the beam instead of down the road. Too low and they'll skim across the roadway and not illuminate correctly where you are trying to see. Fortunately, the bumper on most vehicles works out perfectly. Mounting right under or on top of it is ideal. Place the lights as far back toward the grill as possible, this will keep the front of the lens behind the bumper and minimize the chance of breakage from impact.

FOG LIGHTS - Since fog rarely settles right onto the roadway, fog lights will perform most effectively when mounted low and aimed underneath the fog.

BUMPER MOUNTING - Choose a location on your bumper for mounting your lights, ensuring they measure an equal distance from each end of the bumper. After marking the location for mounting, drill the appropriate size hole for the lights you are mounting. Install the lights and loosely tighten the nut (you will secure them later after aiming).



3. GET YOUR LIGHTS WIRED...

NOTE -Ensure both fuses have been removed from the harness before proceeding.

a. Find a suitable location in your vehicle and mount the switch panel using the enclosed screws.

b. Using a sheet metal screw, mount the relay under the hood within 24" of the battery or other 12 volt power source.

c. Find the 96" ***red*** wire and attach one end to the ***red*** wire on the light furthest from the relay. Now route the same wire back toward the relay and as it passes the second light, attach the enclosed black wire splice bullet connector so that the second light can now be plugged in. Continue to route this ***red*** wire back to the relay and plug it in to terminal ***#87***.

d. It is important that the two ***black*** wires on the lights be attached to a good chassis ground. Sometimes the mounting surface, if metal, is adequate and the wires can be attached to the light mounting bolt. If your lights are mounted to other than a metal surface then the wires must be routed to a good metal ground nearby. IF THE LIGHTS ARE NOT GROUNDED PROPERLY, THEY WILL NOT WORK.

e. Next, the green and white wires must be routed from the switch inside the vehicle to the area under the hood. Attach the ***green*** wire to the switch terminal marked ***LOAD***. Attach the ***white*** wire to the switch terminal marked ***SUPPLY***. Routing these wires can be very simple. Open the drivers side door and the hood, route the wires up the left side of the dash between the dash and the door, through the door jam to the crack between the fender and windshield. Tuck the wires into the crack and continue on into the engine compartment. An alternate method might be to route these two wires through the firewall along side the steering column. Once under the hood, route the ***green*** wire to relay terminal ***#86***. Using the wire splice supplied, the ***white*** wire can be attached to the high beam, low beam or an ignition activate wire depending on how you wish your lights to be controlled. DUE TO ELECTRICAL CHANGES IN SOME LATE MODEL VEHICLES, THE LIGHTS MAY NOT WORK WHEN ATTACHING THE WHITE WIRE TO THE HEADLIGHT HIGH OR LOW BEAM. IN THIS CASE, ATTACH THE WHITE WIRE TO ANY 12 VOLT POWER SOURCE.

IMPORTANT

THE WHITE WIRE MUST BE ATTACHED TO A 12 VOLT POWER SOURCE OR THE LIGHTS WILL NOT WORK.

NOTE - Some states require fog lights work only with low beams and driving lights only work with high beams.

f. The 18" ***brown*** wire should be attached between the switch terminal marked ***EARTH*** and a good metal grounded surface under the dash.

g. With all three wires on their proper terminals, the switch can now be secured to the panel.

h. Connect the 6" ***black*** wire between relay terminal ***#85*** and ground.

I. Attach the 18" ***yellow*** wire between relay terminal ***#30*** and your battery or other 12 volt source.

j. Insert the two fuses and turn on your lights.

k. If all is working OK, cover the wiring under the hood with the protective tubing supplied.

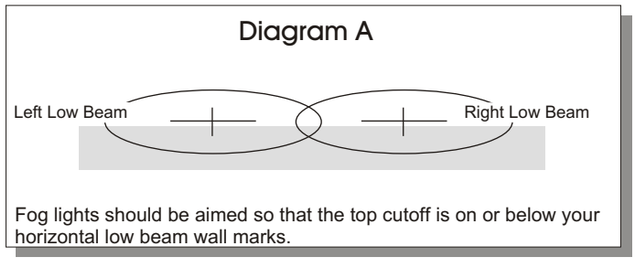
l. If the lights do not work, after double checking all of your connections, call the number below and we will help you in any way we can.

4. AIMING YOUR LIGHTS....

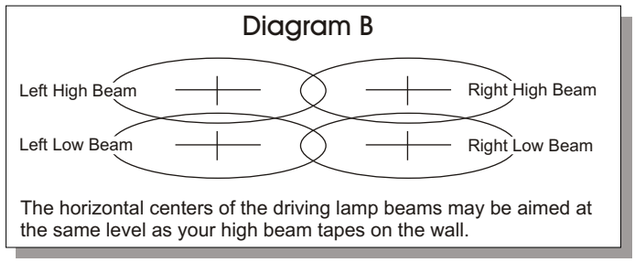
Proper aiming of your lights is important. This procedure is accomplished by aiming your fog or driving lights in relation to your properly aimed headlights.

1. Place your vehicle approximately 25 feet and perpendicular to a flat surface such as a garage door or building. It is important that the vehicle be on level ground.
2. With low beam headlights on, go over to the surface on which they are shining and mark the vertical center on both left and right headlights with something easily removable like masking tape. You might use a short piece of tape to show vertical center and a long piece for the horizontal portion. Yourtape should appear as below.

USE DIAGRAM "A" FOR AIMING FOG LIGHTS



USE DIAGRAM "B" FOR AIMING DRIVING LIGHTS



With these markings on the wall, aiming can be done very easily. Please refer to the proper section below for the type of lights being aimed.

FOG LIGHTS - The vertical aiming of fog lights is very important. Because of the low mounting position relative to the ground (12 to 30 inches), they should be aimed parallel to the ground or lower. Fog lights should be aimed so the cutoff is on or below your horizontal low beam wall marks for best results. The side to side adjustments are up to you. A large center overlap will increase center light and decrease overall width. A slight center overlap will increase your side lighting and give even coverage overall.

DRIVING LIGHTS - Driving lights are used to supplement your high beams. They should only be used in conjunction with high beam headlights. The horizontal centers of the beams may be aimed at the same level as your high beam tape marks on the wall. The width is up to you as you may prefer to light the sides of the road at a distance rather than concentrating the majority of the light down the middle.

OFF ROAD LIGHTS - Since lights such as these are not legal on any public road or highway, aiming your off road or competition lights is entirely up to you. Most prefer the beam as far down the road as possible, others adjust them slightly off to the sides.

23 YEAR WARRANTY

KC HiLiTES proudly warranties all products against any failure for a period of 23 years. Defective products must be returned to KC HiLiTES Customer Service Center prepaid. At our option we will repair or replace items in question and return them at no charge. This warranty is limited to the original purchaser and a sales receipt may be required.

Exclusions are: Abuse or damage caused by accidents.

Include your name, address, phone number and a brief description of the problem. In most cases, the product will be returned to you within two working days via UPS.

If you have any problems or questions, please call customer service at 800-528-0950