



## 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.

### - - - CAUTION - - -

THIS WIRING HARNESS **WILL NOT** ACCOMMODATE MORE THAN TWO 130 WATT LIGHTS

#### 1. PARTS INCLUDED IN YOUR WIRING KIT...

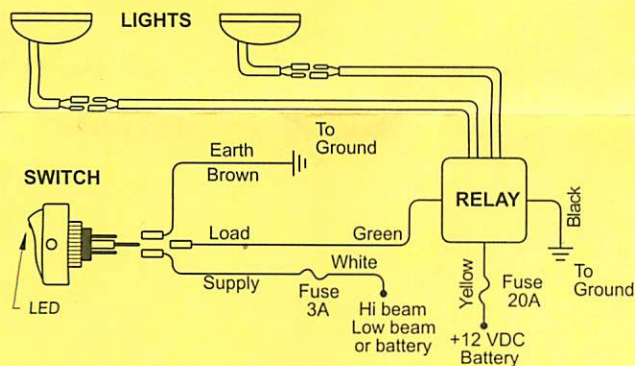
- 1 - Complete harness with relay for two lights (2 x 130w maximum)
- 5 - Screws
- 6 - Wire ties
- 1 - Wire splice connector
- 1 - Switch and panel

#### 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 and black ground wire to a grounded metal surface within 24" of the battery or other unfused 12 volt power source under the hood. (PLEASE ENSURE THE RELAY IS MOUNTED SO THE TERMINALS ARE FACING DOWNWARD. THIS WILL KEEP THE RELAY FROM RETAINING MOISTURE.)
- c. Route the **84" red and black** wire set to the light furthest from the relay and plug them in to the appropriate wires on the light. Now route the **60" red and black** wire set to the closer light and plug them in.
- d. Next, route the **green** wire from the relay and the **white** wire back along the engine compartment firewall and into the vehicle toward the switch. Routing these wires can be very simple. Open the drivers side door and the hood. Route the wires along the crack between the fender and windshield, through the door jam, down under the left side of the dash and then on to where your switch is located. An alternate method might be to route these two wires through the firewall along side the steering column.
- e. Once the wires are inside the vehicle, pull them through the panel from the back and attach the **green** wire to the switch terminal marked **LOAD**. Attach the **white** wire to the switch terminal marked **SUPPLY**. Attach one end of the **brown** wire to the switch terminal marked **EARTH** and the other end to a good grounded metal surface under the dash.
- f. Attach the other end of the **white** wire as follows:

#### Most 1999 and Earlier Vehicles

- Driving Lights** (high beam) - Attach the white wire to high beam wire on your headlight. Your KC driving lights will now only work when the KC switch and your high beams are on.
- Fog Lights** (low beam) - Attach the white wire to the low beam wire on your headlight. Your KC fog lights will now only work when your KC switch and your low beams are on.
- Off Road Lights** - Attach the white wire to any 12 volt power source. A power source that turns on and off with your ignition is preferable.

#### Most 2000 and Later Vehicles

Attach the white wire to the positive side of your battery or other 12 volt accessory lug on your vehicle.

**Option** - If you choose to activate your lights through your headlight system, please contact your car dealer to ensure compatibility with your vehicle. Many vehicles manufactured after 1999 have circuits that are controlled by on-board computer systems and may not allow additional electrical accessories to be tied into factory wiring.

#### 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.**

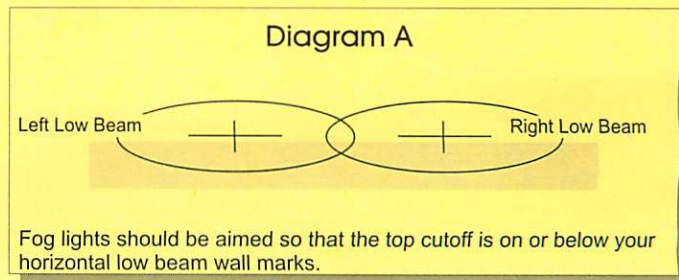
- g. Connect the 6" **black** wire from the relay to chassis ground.
- h. Attach the 24" **yellow** wire from the relay to your battery or other 12 volt source.
- i. Insert the two fuses (3A white wire, 20A yellow wire) and turn on your lights.
- j. If the lights do not work, after double checking all of your connections, call the number below and we will help you in any way we can.

#### 4. AIMING YOUR LIGHTS....

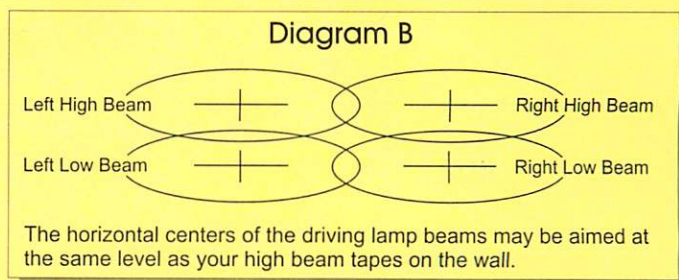
Proper aiming of your lights is important. This procedure is accomplished by aiming your fog or driving lights in relation to your properly aimed headlights.

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. Your tape 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.



IF YOU HAVE ANY PROBLEMS OR QUESTIONS, PLEASE CALL  
CUSTOMER SERVICE AT 800-528-0950

# Important - Please Read

The **WHITE WIRE** that is attached to the supply terminal of your switch **MUST BE CONNECTED** to a **12 VOLT** power source or the **LIGHTS WILL NOT WORK**.

**NOTE** - Many states require that fog lights work only with low beams and driving lights work only with high beam. The following instructions will help you meet those requirements. If in doubt about requirements, check with local and state laws before installing.

## White Wire Hook-up Options

### Most 1999 and Earlier Vehicles (fig A)

- **Driving Lights (high beam)** - Attach the **white** wire to the high beam wire on your headlight. Your KC driving lights will now only work when the KC switch and the high beam are on.
- **Fog Lights (Low beam)** - Attach the **white** wire to the low beam wire on your headlight. Your KC fog lights will now only work when the KC switch and the low beam are on.
- **Off Road Lights** - Attach the **white** wire to any 12 volt power source. A power source that turns on and off with the ignition is preferable.

### Most 2000 and Later Vehicles

- Attach the white wire to the positive side of your battery or other 12V accessory lug on your vehicle.
- **OPTION** - If you choose to activate your lights through your headlight system, please contact your car dealer to ensure compatibility with your vehicle. Many vehicles manufactured after 1999 have circuits that are controlled by on-board computer systems and may not allow additional electrical accessories to be tied into factory wiring.

