Intelligent Lighting Controller

The IQ-175 Intelligent Lighting Controller from Skene Design allows convenient and immediate control of the brightness of auxiliary driving or fog lamps. When configured for driving lamps, the lamps will come on at maximum brightness when the high beam is switched on. When configured for fog lamps, the lamps go off when the high beam is switched on.

When the high beam is off, the lamps come on at a programmed brightness. If a customer supplied switch is used, up to three separate brightness levels may be selected.

An optional ALERT feature flashes the attached lamps when the high beam is switched rapidly on and off twice, helping to ensure that you are seen by oncoming traffic.

IMPORTANT: This product is designed for use on LED or incandescent lamps only. It will not work on HID lamps, may damage the lamps and/or controller, and will void your warranty.

Installation

Connect one or more driving/fog lamps to each of the blue wires as shown in figure 1, using the included Posi-lock® connectors. The maximum current draw of all lamps connected to each blue wire is 6 amps (72 watts). If both blue wires are connected together, the maximum current draw is 12 amps. If the lamps are LEDs, ensure that the negative lead is connected to the blue wire, and the positive lead is connected through a fuse either to the battery or to a switched source of power. No separate relay is required as the IQ-170 performs this function.

Ensure that the lamp’s negative lead is not internally connected to the lamp housing. If this is the case, it will be necessary to electrically isolate the lamp housing from the vehicle chassis.

Connect the red, white and both black wires from the IQ-170’s controller to your vehicle’s switched power, high beam and ground wires respectively, using the included Posi-tap® connectors. The ground connection must be able to carry the full current of both lights. Switched power to the red wire can be any power source that comes on with the ignition, such as a parking light or taillight. It only needs to supply 0.015 amps.

Instructions for using the Posi-tap and Posi-lock® connectors are shown below in Figure 2.

Configure Operating Mode

(Driving Light or Fog Light)

The IQ-175 comes configured to control driving lights, which come on at full brightness when the high beam comes on. It can also control fog lights, which go off when the high beam comes on. Many jurisdictions have regulations that require auxiliary lamps to operate this way.

This configuration may be changed during installation to suit the type of lamps attached, as follows:

Ensure that the high beam switch is ON, and the yellow wire is left disconnected: i.e. not connected to ground or +12
volts.

Turn on the ignition and before 5 seconds elapse briefly connect the yellow wire to ground 2 times. This will toggle the mode between Driving Light mode and Fog Light mode.

**Brightness Control**

When the high beam is off, the IQ-175 can provide three different brightness settings, controlled by the yellow wire. Connecting this wire to ground, leaving it disconnected, or connecting it to +12 volts selects a different brightness setting, as shown in the table below.

<table>
<thead>
<tr>
<th>Yellow Wire</th>
<th>Setting</th>
<th>Default Lamp Brightness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground</td>
<td>A</td>
<td>10%</td>
</tr>
<tr>
<td>Not connected</td>
<td>B</td>
<td>20%</td>
</tr>
<tr>
<td>+12 volts</td>
<td>C</td>
<td>50%</td>
</tr>
</tbody>
</table>

If a two-position toggle switch is connected to the yellow wire as shown in Figure 3, setting A or B may be selected. If a three-position, center-off toggle switch is used as shown in Figure 4, setting A, B or C may be selected.

If a momentary-contact normally-open pushbutton switch is connected as shown in figure 5, then a double-tap on this switch will toggle between settings A and B.

If no switch is used, the bare end of the yellow wire should be insulated with tape or the included Posi-lock connector. The lamps will then illuminate at setting B.

**Programming**

The brightness of each setting may be changed from the default value in order to suit your own requirements. This is done as follows:

> Turn on the ignition, ensuring that the high beam is off. The lamps connected to the IQ-175 will come on at low power for three seconds. This is done to minimize power drain on the vehicle’s battery before the engine starts. The lamps will then flash briefly two times and go to the brightness level determined by the connection of yellow wire.

> To program different brightness levels, as soon as you see the two flashes from the lamps, immediately flash the high beam three times before 3 seconds have elapsed. The controller will respond by flashing the lamps back three times, signaling that the unit is now in programming mode.

> Once in programming mode, each time the high beam is switched on then off, the brightness for the setting selected by the switch will increase by 10%, up to 100%. The next increment beyond 100% will cycle it back to 0% (off).

> When the desired brightness for this switch setting has been reached, move the switch to the next position (or hold down the pushbutton switch if that is being used) and program this setting in the same manner.

> To exit programming mode, turn the ignition off. Programming mode will also end if no activity is seen on the high beam switch for 20 seconds.

> The new brightness level for each setting is saved in non-volatile memory and will be remembered the next time the ignition is turned on.

**ALERT feature** (IQ-175-A model only)

To activate the ALERT feature, flash the high beam twice within 1 second. The lamps will respond with an alerting flash sequence to signal traffic in front of you of your presence. This feature is only active after the programming window has ended (3 seconds after the double flash).

**Product Specifications**

Controller Input Voltage: 9-16 V dc
Controller current draw: 0.015 amps
Maximum lamp power: 60 watts on each blue wire 120 watts if using both blue wires
Maximum lamp operating voltage: 48 V
Programmable brightness range: 0 – 100% in 10% increments

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Intelligent Lights for the Intelligent Rider™

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