



*AVA Tech Center Article*  
**Instrument Panel Lights Dimmer**  
Article and Photos by Bruce Kaufman

Back in ancient times, Joe Motorcyclist could turn the headlight on and off on his bike whenever he chose, yet the safetycrats changed this feature long ago. For many decades now, the headlight, taillight and instrument illumination is now always on when the bike is running and can never be turned off during the day. Because of this, these bulbs tend to burn out more quickly than if they were on only at night.

I have been riding sport bikes for over thirty years and when the small bulbs which illuminate the instruments burnt out it is a simple job to replace them, yet the Voyager XII is a whole different story!

Others have mentioned the instrument illumination tends to reflect off the windshield at night causing a glare, this article will help solve that problem plus extend the life of these hard to replace bulbs by allowing you to turn them off when riding during the day.

By installing a dimmer control as outlined below, the instrument illumination can now be turned completely off, turned completely on, or set anywhere in between.

### Fairing Removal

The first step is to take the upper fairing off to access the harness which feeds the instrument panel. While you are at it, you might want to replace the illumination bulbs now while you are here, unless they are reasonably fresh. There are four of them, #158. Being the fanatic mechanic, I replaced every stink'n bulb....

### The Control

You will need to purchase a 50 ohm potentiometer at your local electronic supply store. Do not get a larger resistance such as 100 ohm or you will have very little control over the brightness and a lot of dead zone where the lamps stay off, a smaller resistance will not turn the lamps completely off.

When you buy the potentiometer, select a knob style you like which fits the shaft (typically 1/4 inch) yet make sure the knob has a recessed opening which can cover the mounting threads of the pot once installed.

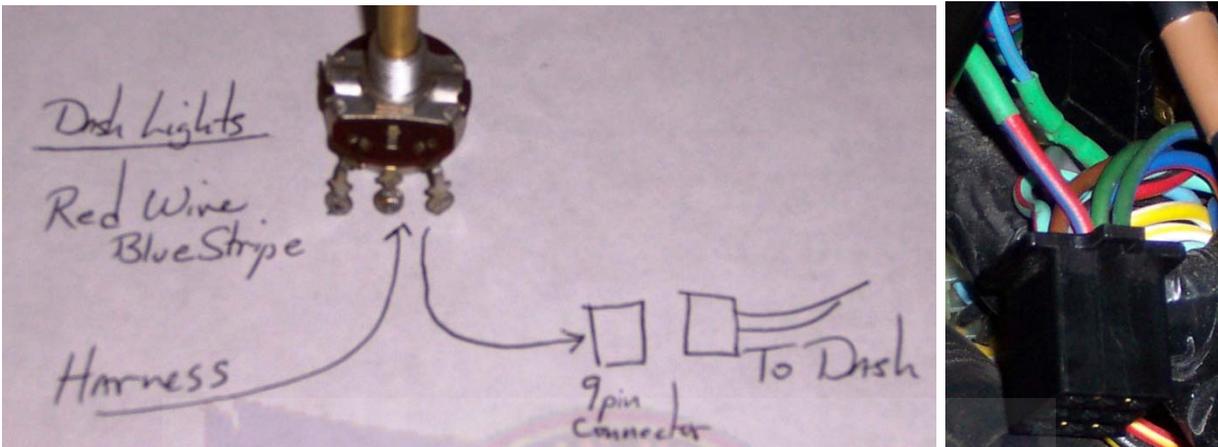


Knob with Recessed Opening (dimmer shaft plugs into hole in center- this is the back of the knob)

This recess in the knob will help keep water out of the pot by creating an overlap at the vulnerable point where the shaft enters the body of the pot. Water which runs down the fairing surface will not be able to climb up to the shaft, unless you are riding through a car wash....

## Wiring the Control

The wire that feeds the instrument illumination is red with a blue stripe. Below is an easy to understand wiring diagram which shows how to break the harness feed wire before the nine pin panel connector and insert the control. The picture of the connector shows my splice using blue wire and green shrink tube to cover the soldered connections.



It does not matter what wire goes on the two potentiometer connectors shown, yet it does matter what two connectors of the potentiometer you use!

One wire must go on the center lead without fail, typically the other wire would be placed on the right hand lead when the shaft is pointing upward as shown if you want clockwise to be brighter. If you want clockwise to be dimmer or off, use the left most lead.

## Mounting the Control

To make life easy, I suggest soldering on a long set of wires to the pot before mounting leaving you to only make the connection shown above. I chose to mount my control in the right faring just under the speaker as the left side is cluttered with other stuff for the radio and CB.



If you plan on a lot of wet riding, seal the pot with a coat of silicone glue before you mount. When installing, do not use up any excess threaded portion on the backside, get as much above the nut on the front side as your knob will cover to keep water out of the shaft. Now install the knob ....

The AVA would like to thank again Bruce Kaufman (Voyager Ninja) for this excellent article. Bruce has worked on mostly Kawasakis for many years and you can look forward to more articles from him in the AVA Tech Center.

