



DDP LED WashGraze® Dimmer Proposal

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“LED WashGraze” is a Registered Trade Mark of Data Display Products (DDP)

DDP LED WashGraze Dimmer Proposal

1. Purpose:

To provide DDP customers an easy brightness control interface for DDP LED WashGraze products with a simple Wall Mount manual control knob.

2. Construction for DDP Dimmer:

A commercial available blank “Plastic Face Plate” is drilled with 2 holes to mount a 10K Ohm Potentiometer. A flexible cable with 3 conductors is soldered to the Potentiometer. The length of cable can be specified for certain common length. The maximum cable length is TO BE DETERMINED.

The Dimmer can be installed on any household light switch wall mount cut-out. The installer Electrician will wire the Dimmer to the DDP LED WashGraze product.

3. White Color Face Plate Dimmer:

See Fig. 1 below for DDP Dimmer using a White Face Plate and a White Knob.



Fig. 1

DDP Dimmer using a White Face Plate and a White Knob.

The White Blank Face Plate is made by LEVITON (Little Neck, NY 11362). The P/N is R42-88014. It is sold in Home Depot for \$0.49 each.

The White Knob is also made by LEVITON. The P/N is R12-26115-W. It is sold in Home Depot for \$1.75 each.

4. Ivory Color Face Plate Dimmer:

See Fig. 2 below for DDP Dimmer using a Ivory color Face Plate and a Ivory color Knob.



Fig. 2

DDP Dimmer using a Ivory color Face Plate and a Ivory color Knob.

The Ivory color Blank Face Plate is made by LEVITON. The P/N is R41-86014-1. It is sold in Home Depot for \$0.49 each.

The Ivory color Knob is also made by LEVITON. The P/N is R11-26115-I. It is sold in Home Depot for \$1.75 each.

5. The Cable:

The above samples use BELDEN 8761 cable. This cable may not suitable for outdoor application or UL regulations.

The Face Plate/Knob and Potentiometer must be used in door. If necessary, we can find other cables for higher rated more severe environment application. The higher rated cable could be outdoor wet/sun or even wet locations for direct burial underground.

6. Potentiometer Wiring:

See Fig. 3 below for the wiring of the Potentiometer.



Fig. 3
The wiring of the Potentiometer.

The cable's insulation Jacket is stripped for 1 inch. The 3 wires are stripped for ¼ inch and soldered to the Potentiometer. There is a 4 inch Wire Tie to secure the cable to the Potentiometer.

The Potentiometer is made by ALPHA with P/N RV24AF-10-15F-B10K. It is sold in www.mouser.com with P/N 313-2441F-10K @\$1.40 each Qty 1, or \$0.77 each Qty 5000.

7. Terminals:

See Fig. 4 below for the Terminals at the other end of the cable.

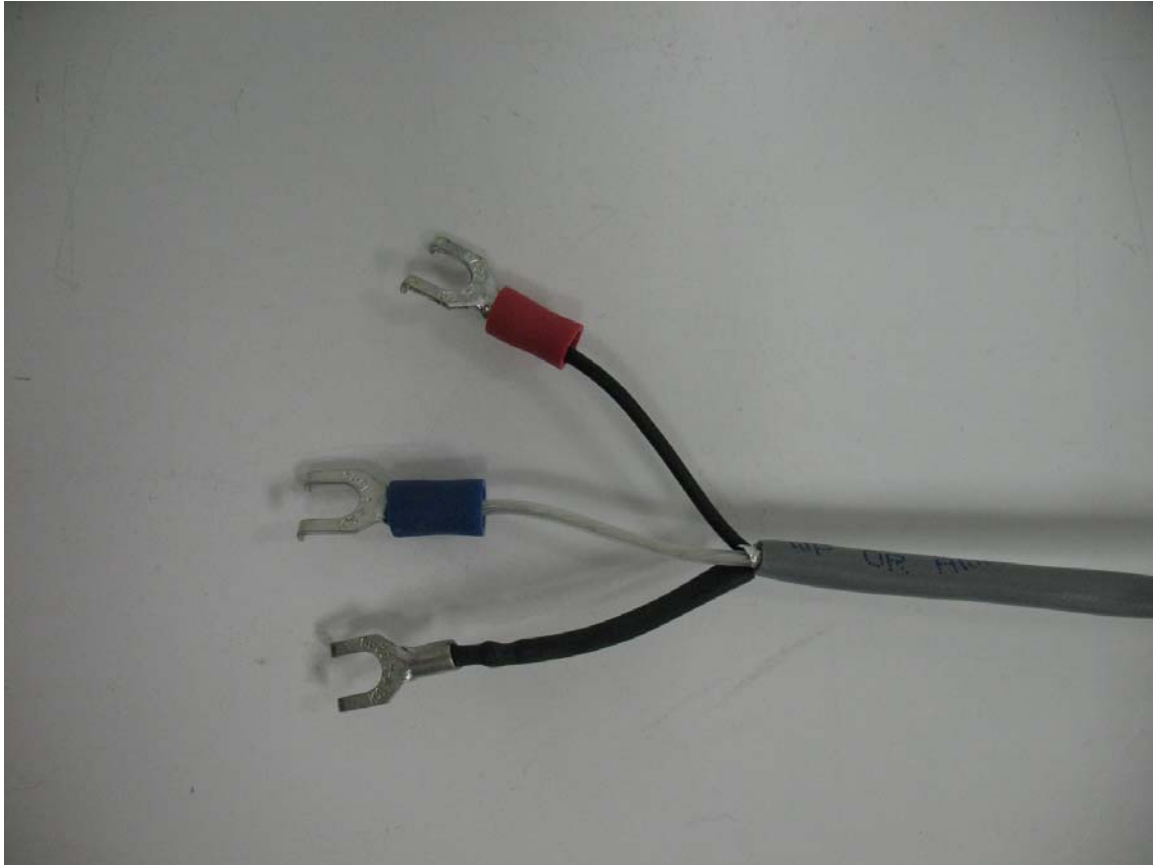


Fig. 4

The Terminals at the other end of the cable.

The **Black Wire** is soldered with a #8 Flanged Spade Terminal with Red Insulation. It is made by Kobicon with P/N 2238. It is sold at www.mouser.com with P/N 159-2238 priced at \$0.06 for Qty 5000.

The **Clear Wire** is soldered with a #8 Flanged Spade Terminal with Blue Insulation. It is made by Kobicon with P/N 1638. It is sold at www.mouser.com with P/N 159-1638 priced at \$0.06 for Qty 5000.

The **Ground Wire** (with black Heatshrink Tube) is soldered with a #8 Flanged Spade un-insulated Terminal. It is made by Kobicon with P/N 2238. It is sold at www.mouser.com with P/N 159-2238 priced at \$0.04 for Qty 5000.

7. Dimmer connection to DDP WashGraze Power Cable:

See Fig. 5 below for the Dimmer connection to DDP WashGraze Power cable.



Fig. 5

Dimmer wires (right) connection to a DDP WashGraze Power cable (left).

There are 4 types of DDP WashGraze Power Cable: Straight Connector 504359-XX, Top-Notch Right Angle Connector 504440-XX, Right-Notch Right Angle Connector 504492-XX and Left-Notch Right Angle Connector 504493-XX. DDP LED WashGraze Dimmer will work any of these Power Cables.

The Terminals end of all these 4 cables are soldered to #8 Terminals the same way.

Please follow the following table to wire the Power Cable to the Dimmer:

Power Cable Terminals	Dimmer Terminals
Blue Wire with RED Insulation Terminal	Black Wire with RED Insulation Terminal
Orange Wire with BLUE Insulation Terminal	Clear Wire with BLUE Insulation Terminal
Black Wire with No Insulation Terminal	Ground Wire (Heat shrink Tube) with No Insulation Terminal

The 3-position Terminal Block is MOLEX P/N 38770-0103. It is sold at www.mouser.com with P/N 538-38770-0103 priced at \$1.24 each Qty 1000.