

Community / Aquarium LED Retrofit Tech Tips: Connecting an Apex or Apex Jr. to a Dimmable LED Driver

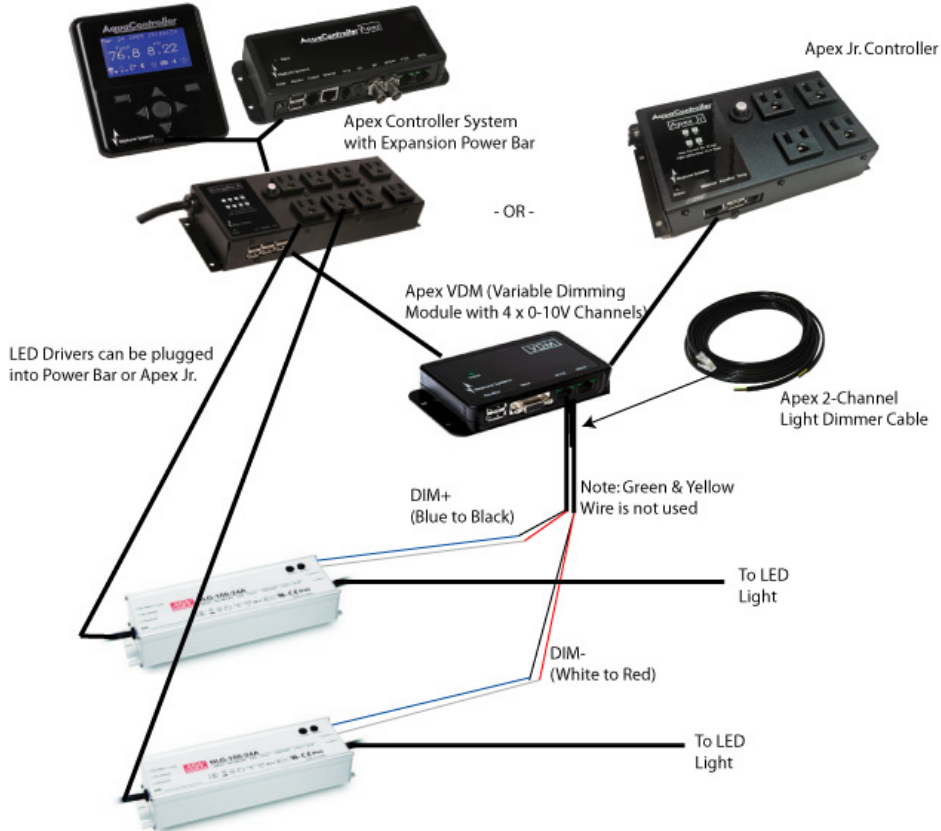
Tech Tips: Connecting an Apex or Apex Jr. to a Dimmable LED Driver

If you have an **Apex** or **Apex Jr.** aquarium controller, from **Neptune Systems**, and your trying to connect it to our **Cannon Pendants**, **Panorama LED Retrofit**, or one of our dimmable LED drivers (for the Panorama Pro), here are a few tips to help you through the installation:

You'll need:

- A dimmable LED driver (we use Meanwell LED drivers)
- An Apex Jr. or Apex Controller with Energy Bar, a VDM (Variable Dimming Module) and 2 Channel Dimming Cable.

1. Follow all of Neptune Systems instructions for installing your Apex Controller system and the VDM Module.
2. Ensure an AC plug is installed on your Meanwell driver.
3. Follow the instructions included with your LED light for connecting the Meanwell driver to your LED lighting system.
4. Connect the VDM Module cable to the Meanwell Driver using the diagram below. Note: The VDM module features four 0-10V channels, each dimming cable has two channels, one for white light, one for blue light. The cables from the VDM are BLACK and RED – BLACK is DIM+ & RED is DIM-. You'll notice the Meanwell driver dimming cables are also labeled – blue is DIM+ & white is DIM-. Connect the cables together using a wire nut or connector.
5. Plug the Meanwell LED Driver into the Apex Energy Bar or Apex Jr..
6. Follow the instructions included with your Apex or visit their [support forum](#) for turning the LED light and programming the dimming cycle and on/off times.



A few notes:

- The Meanwell 100 watt HLG100-36B can be used with or without a controller. When used without a controller, you can plug it into a simple wall socket or 24 hour timer.
- The Meanwell 60 watt ELN60-24D must be used with a controller. If you do not use a controller, the LED driver will not turn on.
- When connecting our dimmable **Panorama Retrofit LED systems** to a controller, the entire unit is controlled (the white LEDs and blue LEDs cannot be controlled individually)
- It's not recommended to connect more than two LED drivers to each channel on the VDM cable.

Daily Aquatics has put together some great instructional videos on this installation as well:

Episode 1