How to wire a bypass to your Nano Dimmer load.

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Installing a bypass to your Nano Dimmers load.

This guide is part of the larger **Nano Dimmer user guide** (https://aeotec.freshdesk.com/solution/articles/6000162176-nano-dimmer-user-guide-) and details how to install a bypass on **Nano Dimmer** (http://aeotec.com/z-wave-light-dimmer-switch)s load. It is designed for use with Nano Dimmer when controlling a small power load such as a LED light or a compact fluorescent lamp

- **WARNING: This is only for ZW111 Nano Dimmer, this wiring diagram cannot be used with ZW116 or ZW139 (Nano Switch).**

To determine if you need a Bypass load, determine if your load meets the minimum power requirements.

Installation Type	Minimum load power requirement.
3-wire Installation with Neutral Wire	10W
2-wire Installation without Neutral Wire	20W

This guide can be utilized to install Nano Dimmer to control a low power lighting such as LED lights or compact fluorescent lamps.

Important:
A licensed electrician with knowledge and understanding of electrical systems and electrical safety should complete the electrical installation.

Installation video.

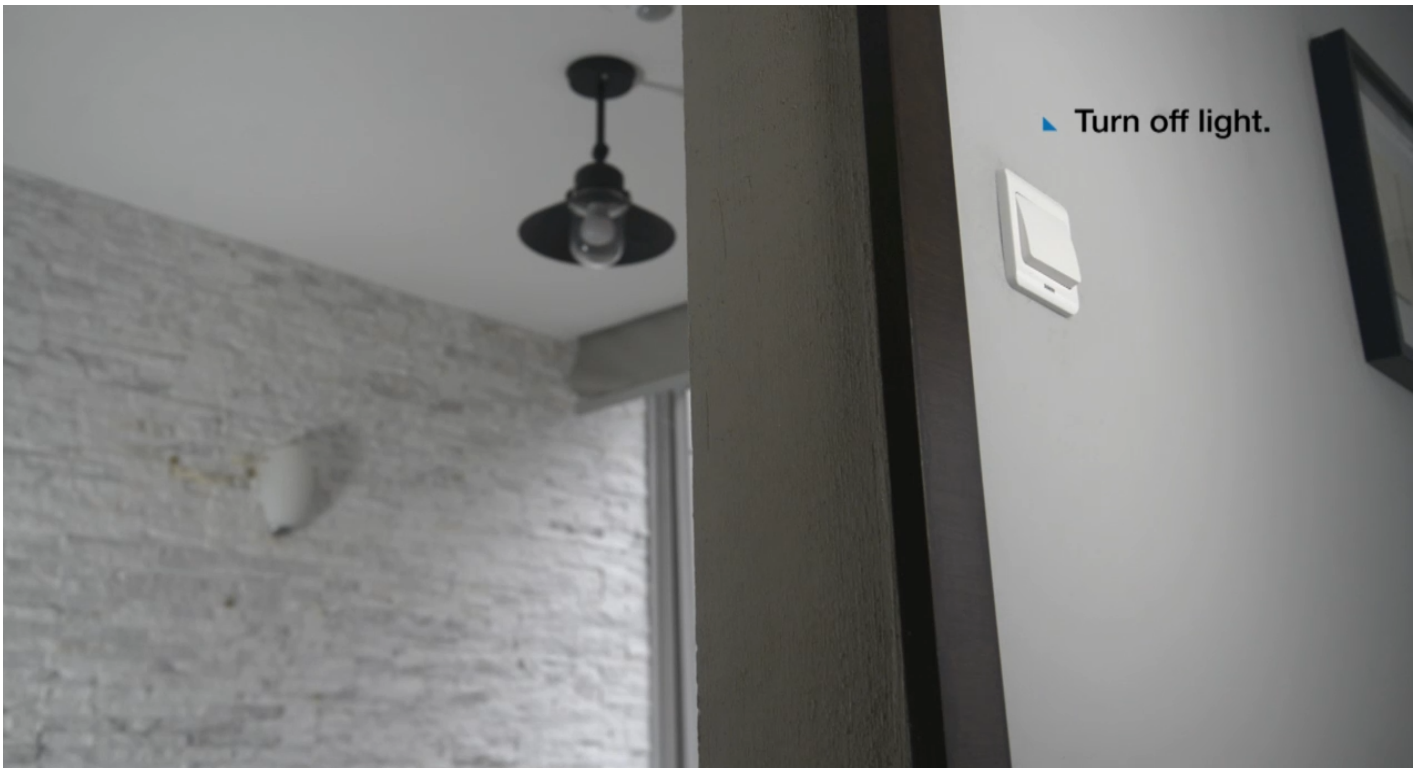
This **installation video** (https://www.youtube.com/watch?v=9D9ysGLJVqg&feature=youtu.be) will take you through each step of installing Bypass Load. Other installation videos and features can be found on **Aeotec's YouTube channel** (http://youtube.com/aeotec). The textual equivalent of this video's steps can be found below.

Installation steps.

To complete the installation you'll need;

- Aeotec Nano Dimmer.
- Bypass Load.
- Voltage Screwdriver or Multimeter.
- Screwdriver.

1. Turn off your light
Switches are different globally, but for this step you wish to turn off the electricity flowing to your light, make sure that the light is turned off before you start wiring. It is highly recommended that you turn off the circuit breaker to ensure that there is no electricity.



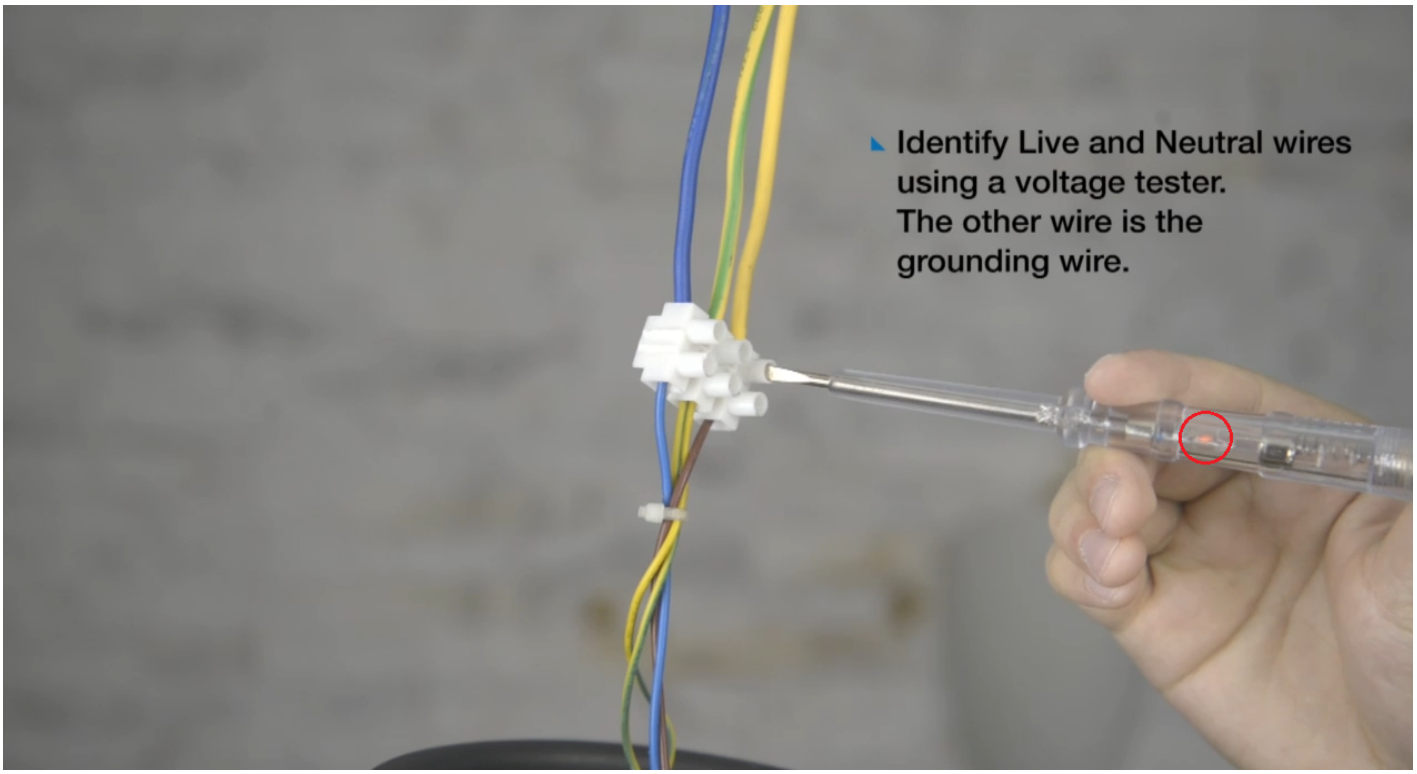
2. Remove your Load from its installation to expose its wires.
The installation of your Load will be different based on your installation, please remove your load from its installation to expose its wires where you will be installing the Bypass Load directly to it.

3. Turn on your light or circuit breaker.

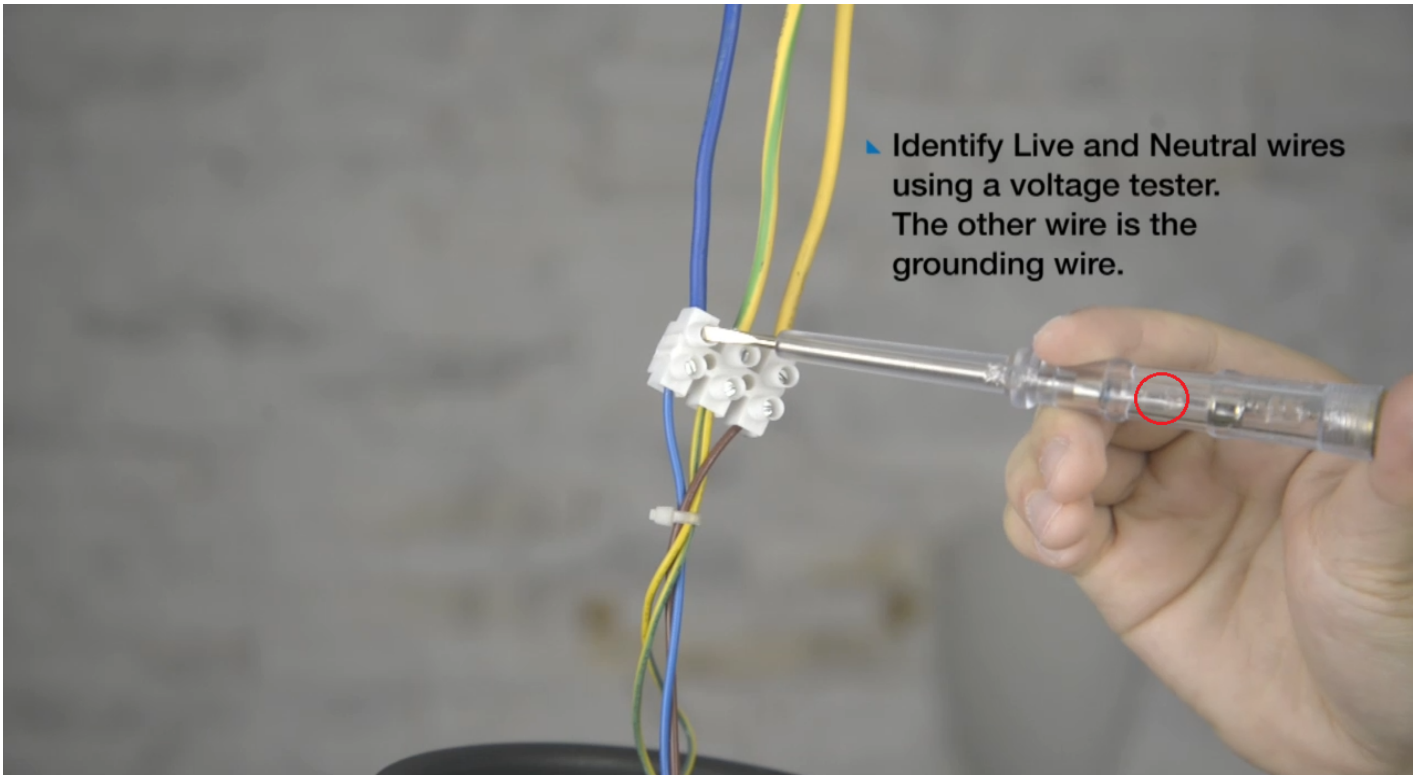
You will now need to test your load for the correct wires to determine the live and neutral wires powering your Load. If you turned off your circuit breaker, make sure to turn it on now and ensure that the light is on.

4. Test the wire points to determine Live and Neutral wire using the Voltage Screwdriver.

Now that it's powered back on, test the connection points in your wires to determine Live and Neutral Wires. In our images below, the red LED lights up to indicate that there is voltage present. The first image determined that the yellow wire is the Live wire.



The blue wire does not turn on the red LED in the below image which indicates that it is the Neutral wire.

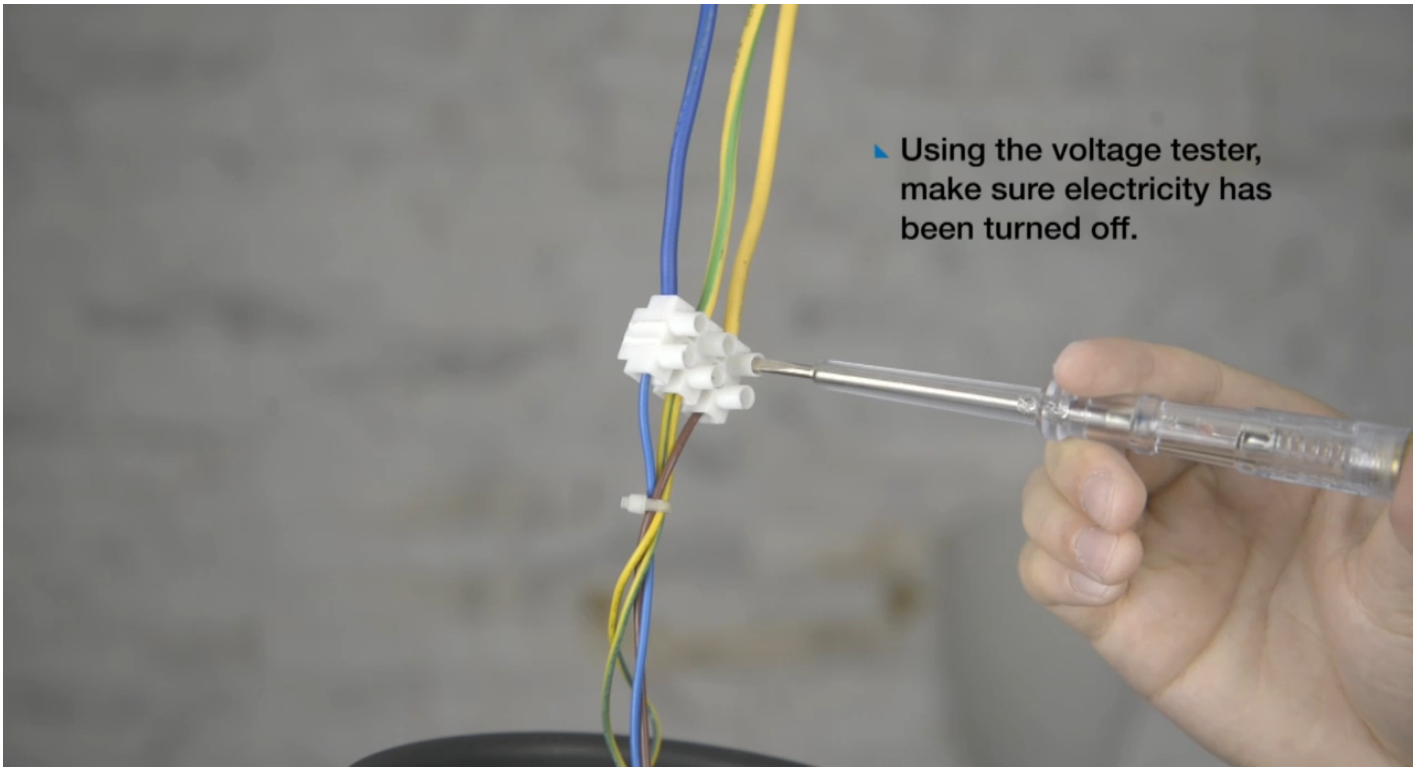


Note: We do not test the Green/Yellow wire as it is the ground Wire. (in most countries, ground is indicated as a solid core wire, green wire, or green/yellow wire).

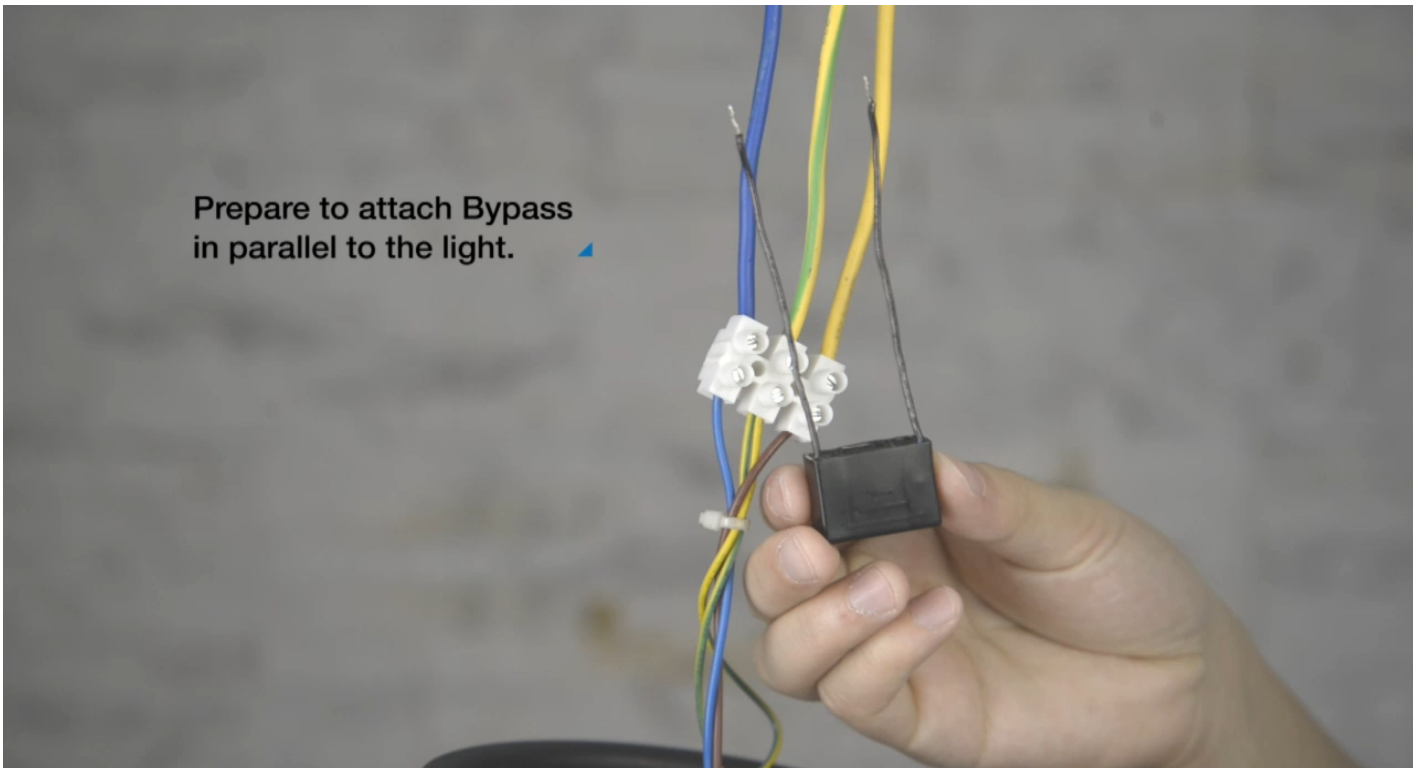
5. Turn the Load off.

We will now prepare to install the Bypass Load, we must make sure that the Load/Light is off before installation. Turn off the light or circuit breaker.

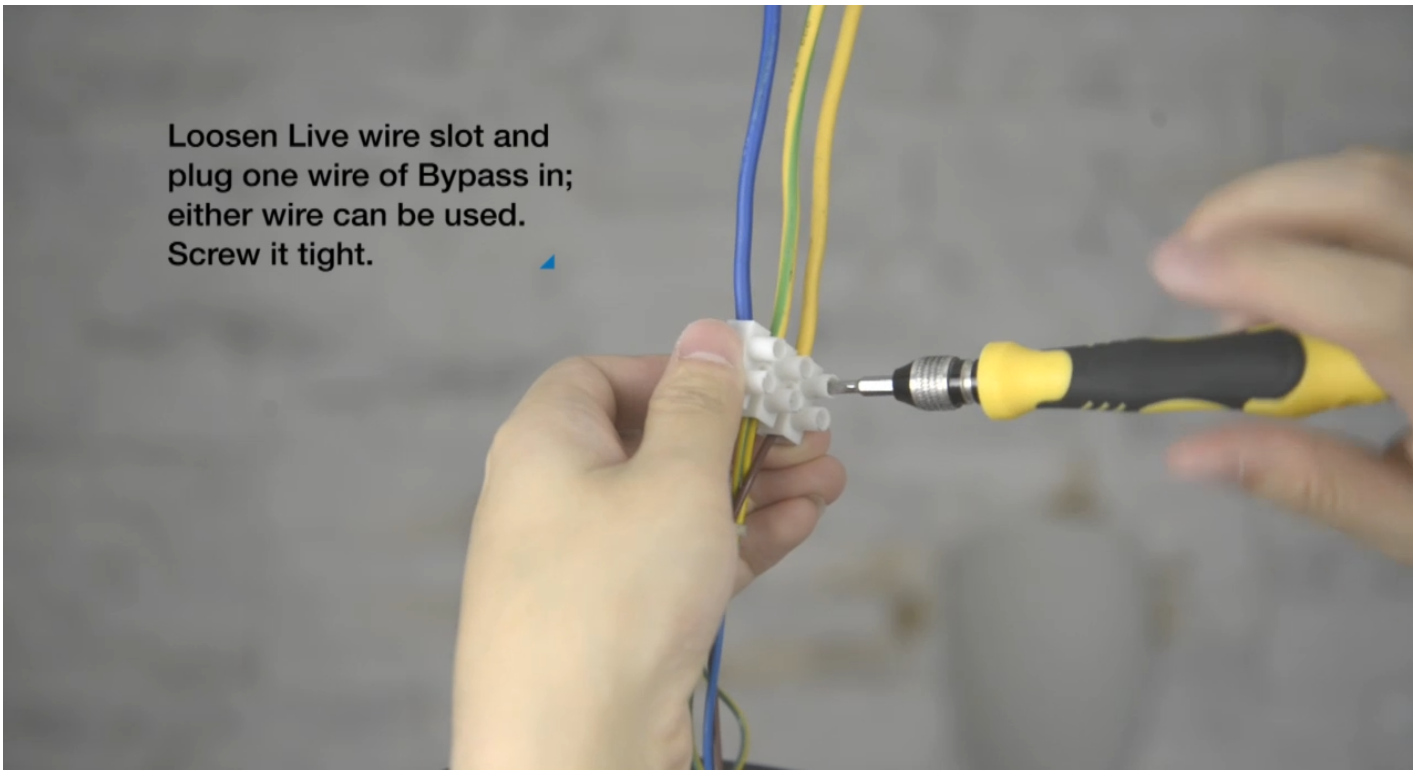
6. Test the Load wires to determine there is no electricity.
Take the voltage screwdriver and make sure that there is no electricity flowing into the load before preparing and installing the Bypass Load.



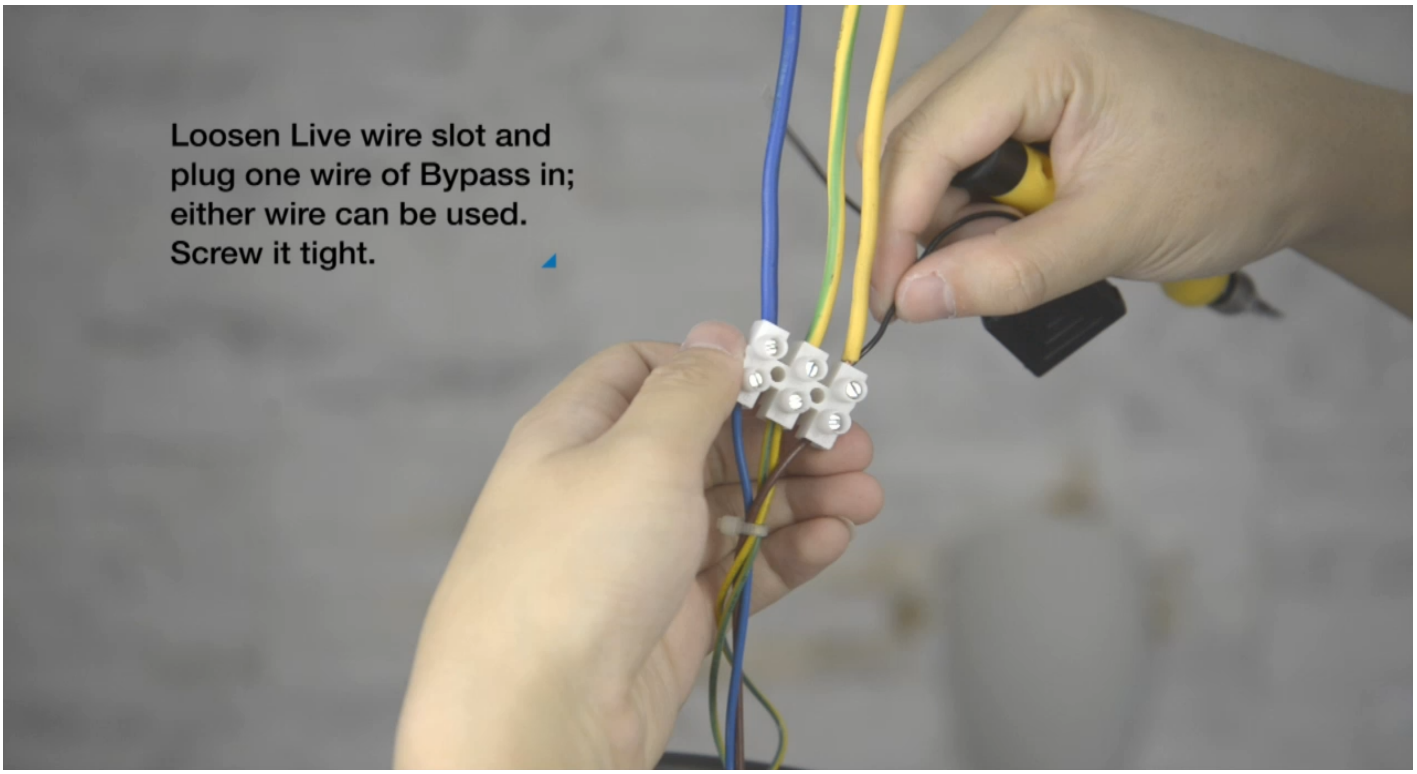
7. Prepare your Bypass Load.
Bring out your Bypass Load and Screwdriver to begin installation of the Bypass Load.



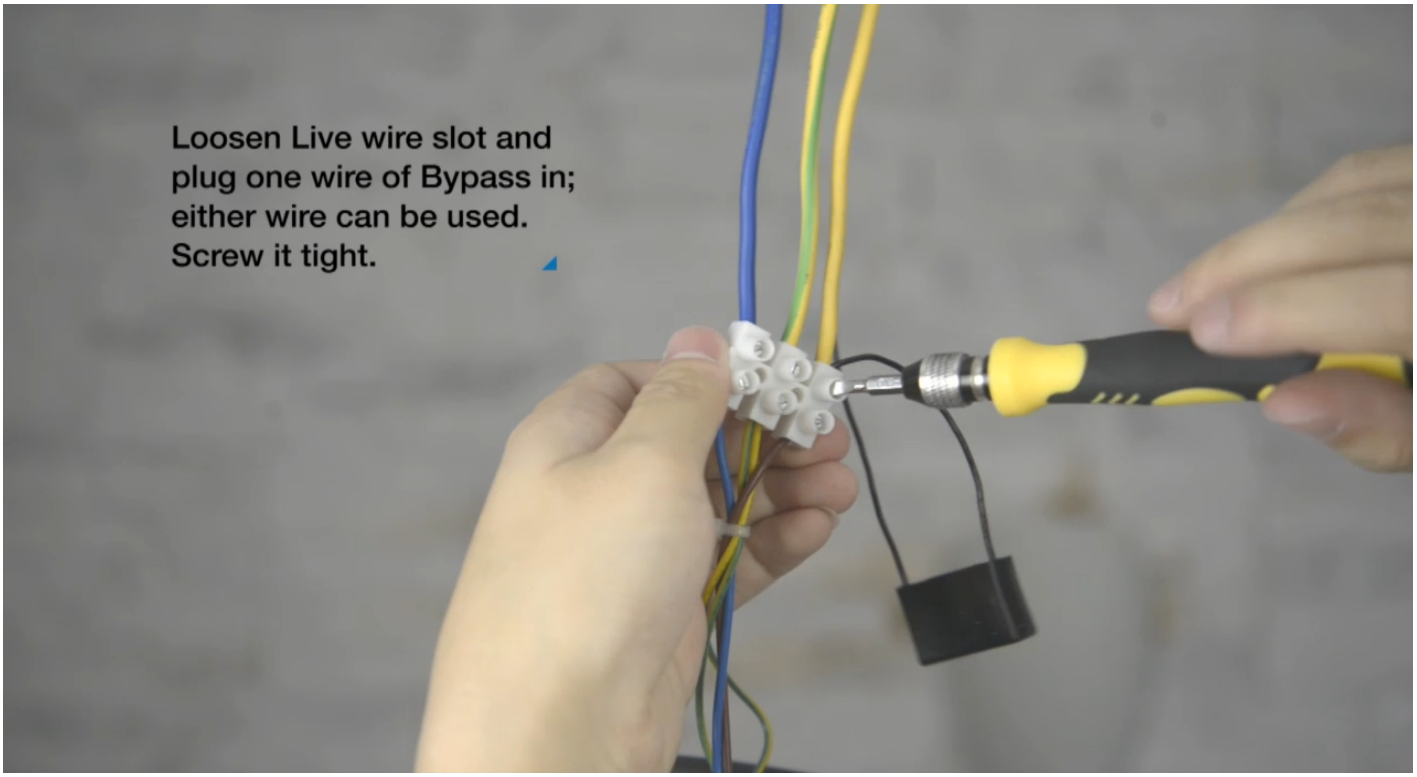
8. Connect the Bypass Load directly to the Live line.
First loosen the connection to the Live wire connected to your Load.



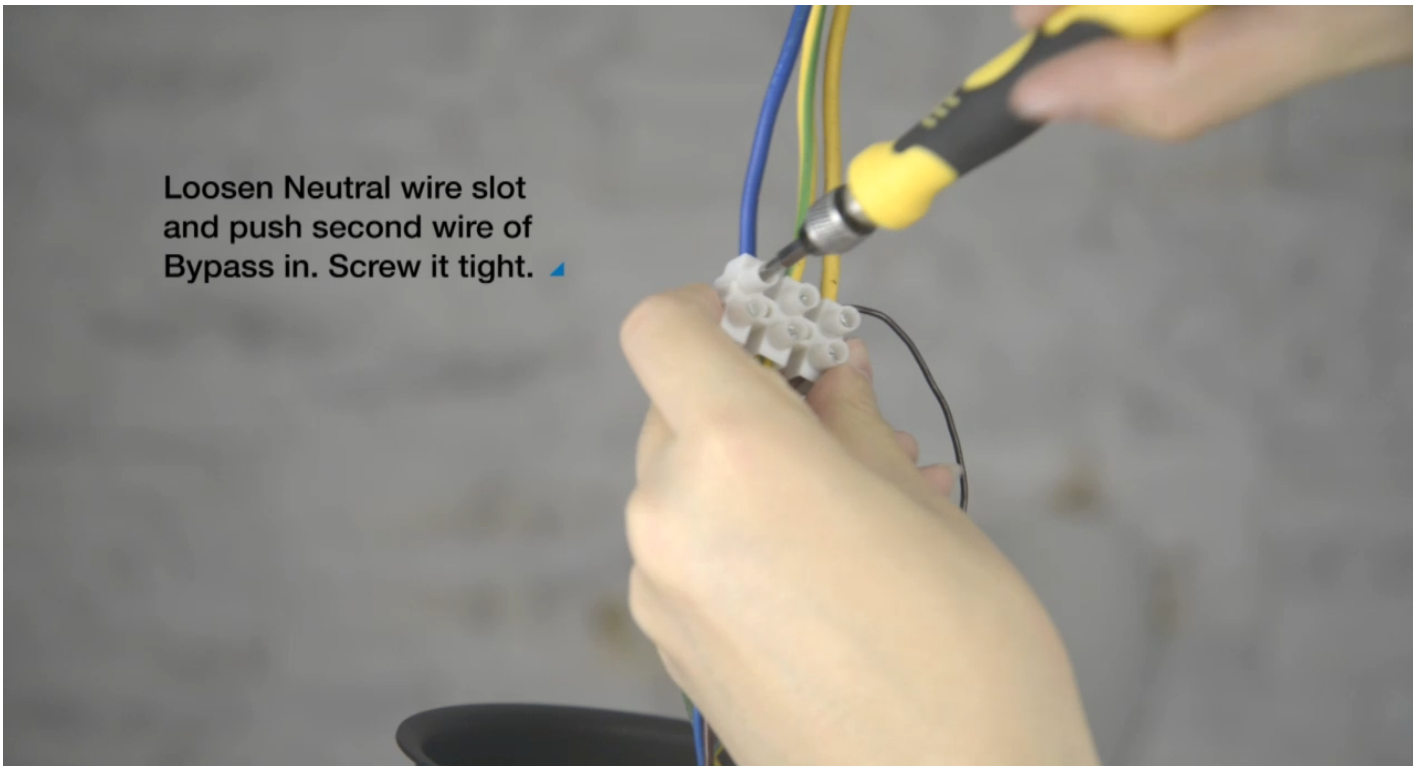
Fit in one side of the Bypass Load Wires into the fitting.



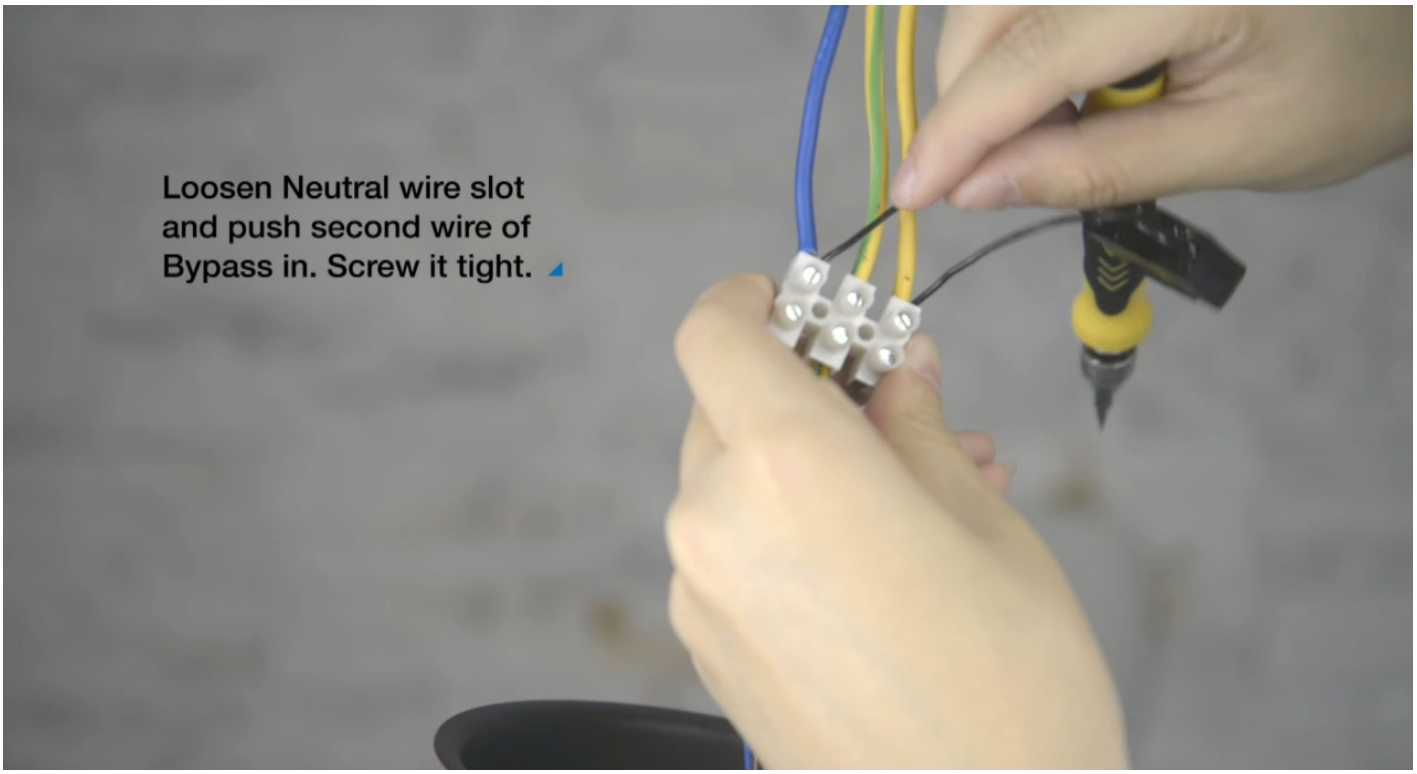
Tighten the screws on the Live wire and Bypass wires and make sure that they cannot fall out.

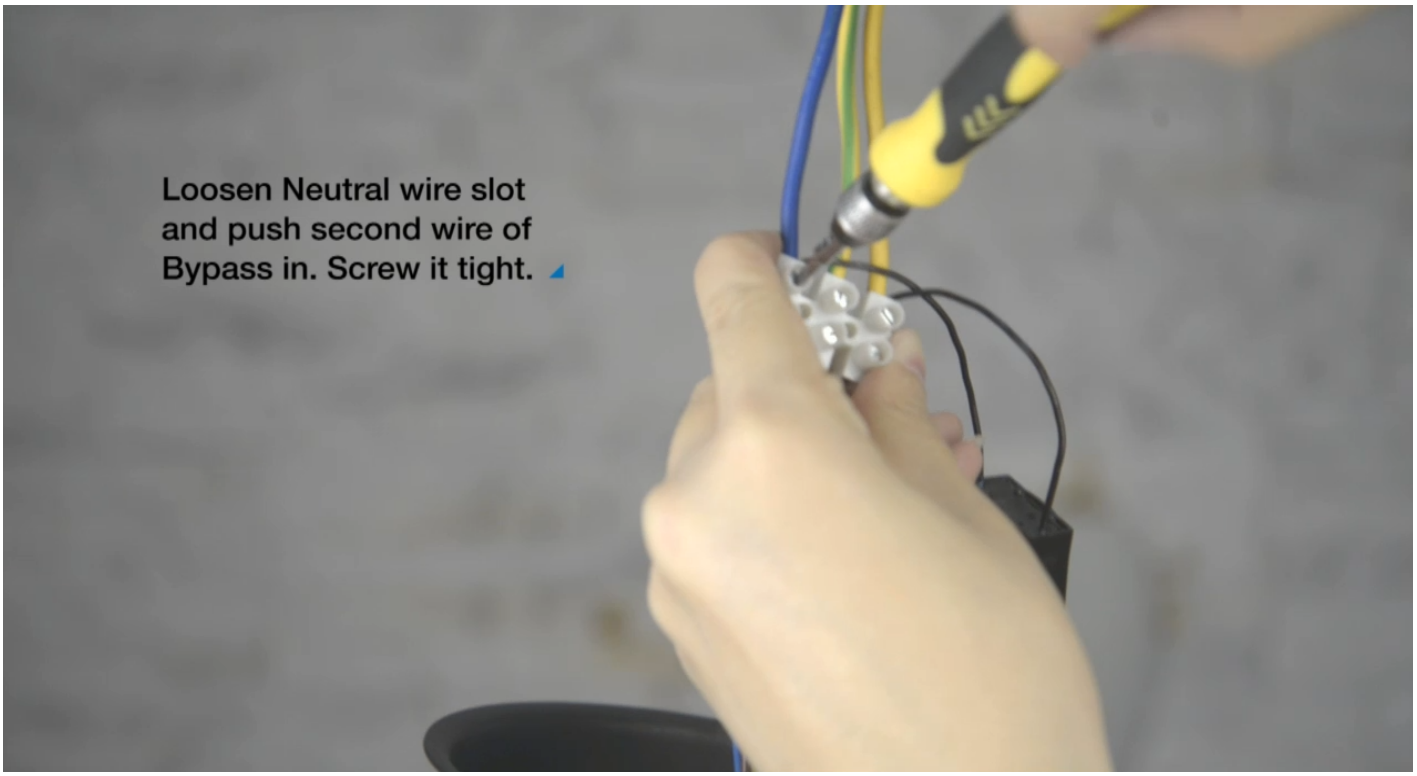


9. Connect the Bypass 2nd wire into Neutral line.
First loosen the connection to the Neutral wire connected to your Load.



Fit the second wire of the Bypass Load Wires into the Neutral fitting.





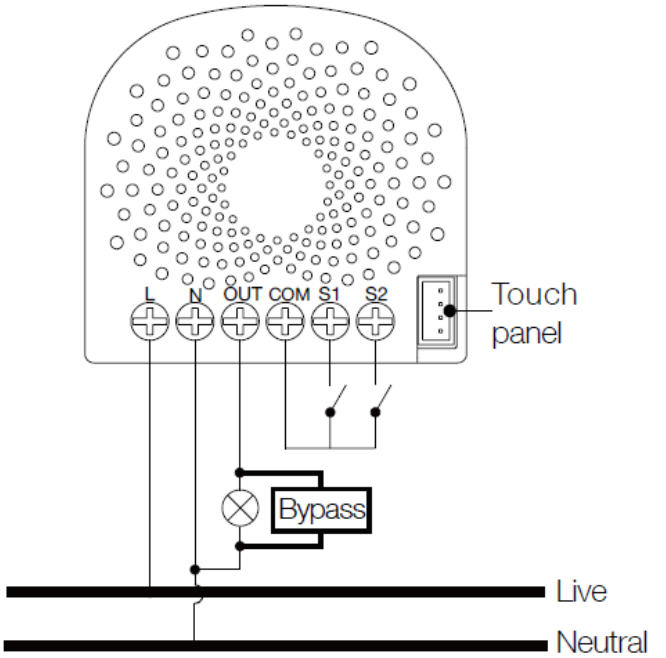
Tighten the screws on the Neutral wire and Bypass wires and make sure that they cannot fall out.

10. Install your Load back into its base along with the Bypass Load.
Place the ceiling lamp back into its base.

Then screw it in tight, make sure that it will not fall out.

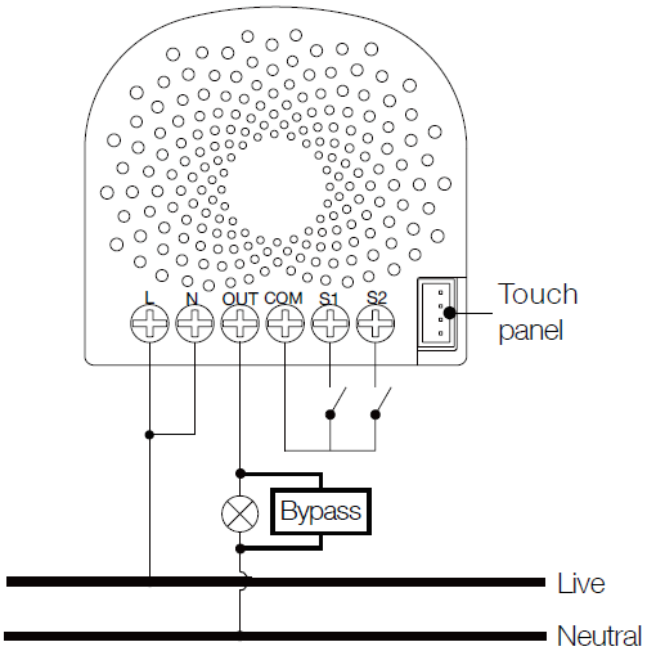
16. That's it.
The Bypass Load has been successfully installed into your Nano Dimmer circuit. Turn on your light and power back on your circuit breaker.

Wiring diagram.
The following is the wiring diagram for the installation method described above.



3-wire connection with neutral and bypass load.

or



2-wire connection without neutral and bypass load.