www.needlesnminis.com

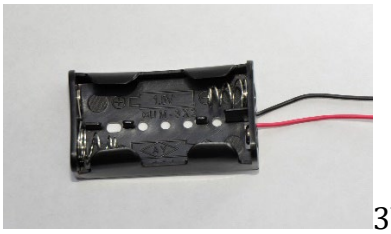
1:48 Scale LED Lighting

All the LEDs we carry are 3V. Using lights with power supplies that are of a higher voltage can burn out the light or cause damage to your house. Using a higher voltage light with a lower voltage power source will make the lights dimmer.

LED's have a positive and negative side. The red is the positive and the black or green are negative. When connecting the LED lights to your power source you will connect red to red and black or green to black. You can connect up to 10 LEDs on a button cell battery (CR2032) by twisting all the red wires together and all the green wires together and connect to the power supply as stated above. Use shrink tubing to cover and protect the positive and negative connections from making contact with each other. If you are using more than 10 LED's on a single power supply, you will need the 2-AA Battery Holder. All of these battery holders are available with or without an On/Off switch.

You can find these battery holders in our Electrical Products.

3V (CR2032) Battery Holder



3V 2-AA Battery Holder

All of the LEDs purchased from Needles N Minis should be used with a **3V coin cell battery CR2032,** NOT a dollhouse power supply or a 9V battery. The battery allows up to 10 lights to run for about 12 hours. 3 lights will run on a single battery for about 40 hours.

How to Work with Battery Powered LEDs

Conducting a Trial Test

Slip the battery into the battery holder, making sure that the plus (+) side of the battery is on the same side as the plus (+) sign on the battery holder.

Twist the LEDs red wire to the red wire. Then, twist the green wire to the black on the battery holder switch unit.

Turn on the switch, if not already on. If it does not light, make sure that the battery is in the battery holder correctly. If it still doesn't work, make sure the connections are tight and the copper in the wire is completely exposed.

Making the LED Wires Shorter

Straighten the wire of the LED. Figure out the length that you want the wires to be. If the wires need to be shortened, the ends may be re-exposed by gently sanding with a piece of fine sandpaper or burning it off with a soldering iron. Be sure to clean the residue off the iron after removing the insulation.

Connecting the LED to the Battery Holder with Switch Unit

Slip the black shrink tubing over the ends of the wires on the battery holder switch unit. Push them toward the switch. As before, you will twist the red wires together; and twist the black and green wire together. Pull the shrink tubing down to cover the connections. Heat with a hair dryer until the tubing shrinks down to fit tightly around the wires. Be careful not to heat it so much that you melt the insulation on the battery holder wires.

Adding Additional LEDs to One Battery Holder with Switch Unit

Remove approximately 1" of the colored varnish (red and green) from the ends of all the wires. This will expose the shiny copper wire underneath. The easiest way is to burn it off with a lighter. Then use fine sandpaper to remove the charring. The key to a good connection is removing the varnish completely. Another method is to take a piece of sandpaper and fold it with the sanded side on the inside of the fold. Grip the end of the wire in the sandpaper and pull the sandpaper away from the wire. Repeat until all of the varnish is gone for a good connection.

Hold all of the red wires PARALLEL. Twist the wires together very tightly. Do the same with the green wires.

Strip about 1" of the insulation from the wires on the battery holder with switch unit. Put shrink tubing over the wires. Hold the red wire on the battery holder with switch unit PARALLEL to the red wires of the LEDs. Twist together very tightly. Do the same with the black and green wires.

Fold the twisted portion of the wires down and pull the shrink tubing over top of the bundle of wires. Test the connection. If it works without flickering, you're ready to heat the shrink tube with a hairdryer.

Heat the shrink tubes with a hair dryer until the tubes have shrunk completely around the connections being careful not to melt the insulation on the battery holder with switch unit.

The instructions for installing the LEDs are the same for installing any of our 1:48 scale dollhouse light fixtures and chandeliers. If you have any questions, please e-mail us at info@needlesnminis.com. Some of our products may change so be sure to check our website for availability.