NCE

The Power of DCC

Preliminary
LED Starter Kit

$199.95

LED layout lighting starter kit designed to provide lighting of the lower decks of multiple deck layouts.

Includes:
- ✓ Main Lighting Controller
- ✓ 9 color balanced lighting strips, enough for six feet of lighting
- ✓ All necessary cables and connecting wires
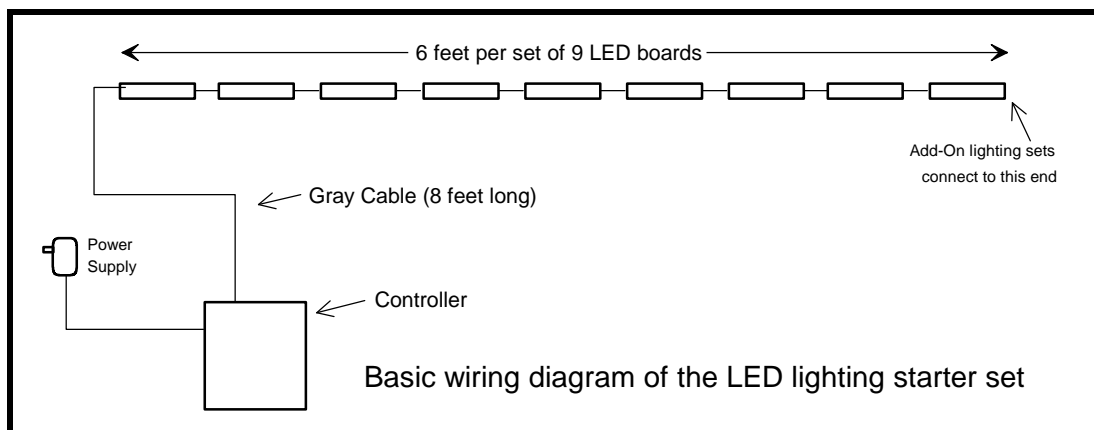- ✓ UL listed power supply

Features:
- ✓ Color balanced to replicate bright daylight through night lighting conditions
- ✓ Select between four lighting "scenes", each scene can be individually set
- ✓ "Live" mode with continuously adjustable brightness and hue
- ✓ Can optionally be controlled through your DCC system.
- ✓ Runs Cool - only 24 Watts but provides as much light as a 100 Watt bulb

Warning: This product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Age
14+

Description:
The lighting starter set will provide up to six feet of LED lighting for your layout.   The basic 6 feet of light can be extended with 6 foot add-on sets. Below is a simplified diagram of how the lighting is wired.
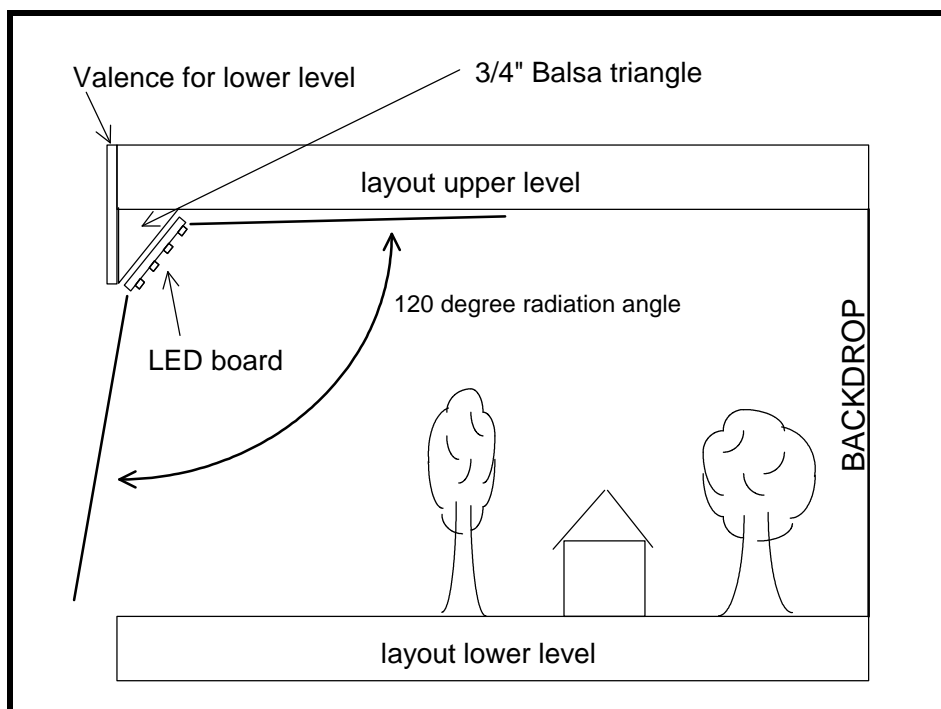
6 feet per set of 9 LED boards

Add-On lighting sets connect to this end

Gray Cable (8 feet long)

Power Supply

Controller

Basic wiring diagram of the LED lighting starter set

Where to mount the lights:
Before wiring up your lights it is best to have a plan as to where and how you are actually going to mount them to your layout.

The lighting should be as close as possible to the front edge of upper deck or valence as possible. There are three reasons for this. First and foremost you want to place the most lighting on the front side of the scene so that you don't have to look at the unlit side of objects. Second is to prevent seeing reflections of the lights from railheads, water features or other shiny objects on the layout. Third you want to light the backdrop all the way to the top.
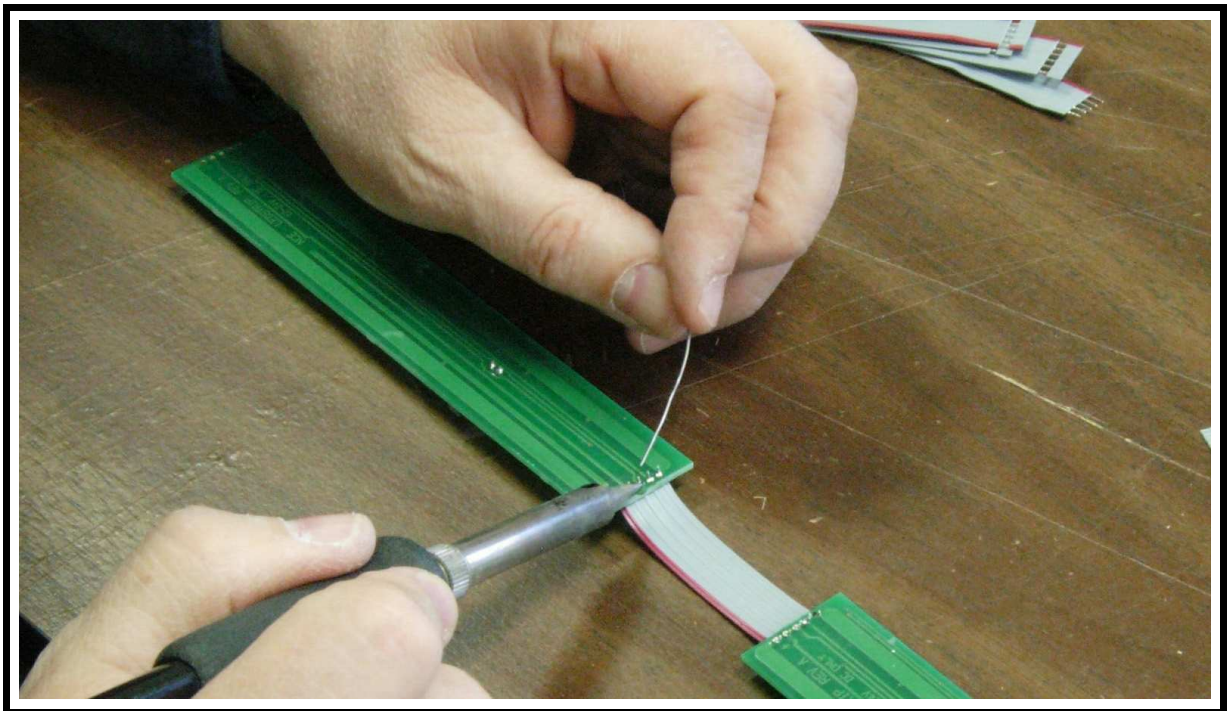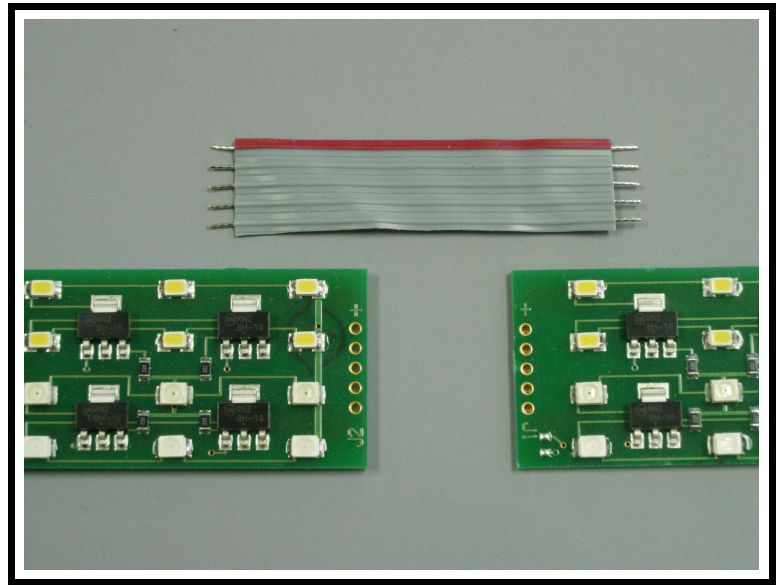
We've used Midwest 6711 - 36" x ¾ triangle balsa from the local RC airplane hobby shop to place the light boards at 45 degree angle.

The 120 degree radiation angle of the LEDs is enough to provide light coverage from the front of the layout to the top of the backdrop.
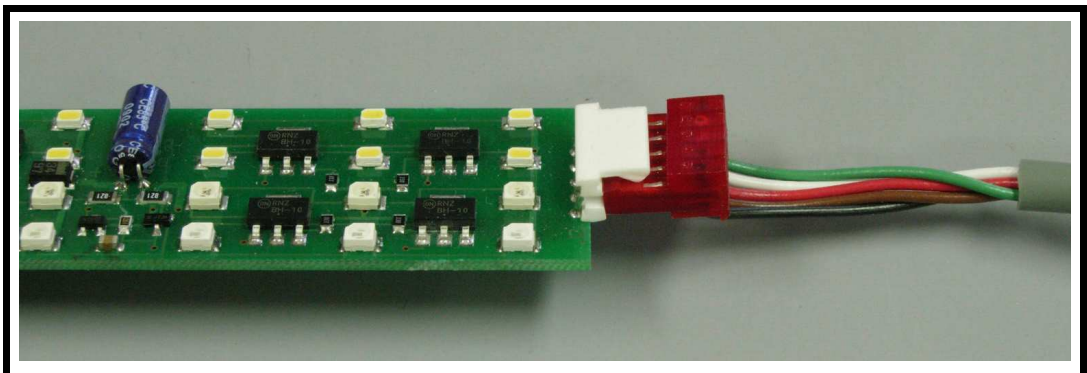
Valence for lower level

3/4" Balsa triangle

layout upper level

120 degree radiation angle

LED board

BACKDROP

layout lower level

Wiring up the lights:

The individual LED lighting boards are to be connected together with the short 2 inch gray flat cables that are supplied.   Notice that each cable is marked with a red stripe. Use these cables to connect between the lighting boards in a daisy chain fashion. The red mark on the cable should connect to the "+" hole marked on the LED boards. Notice that one of the LED boards has a white connector already soldered in one set of holes. This is for connecting the gray round cable to the controller. Insert the cable into the top side of the board and solder on the bottom. See the photos for reference.
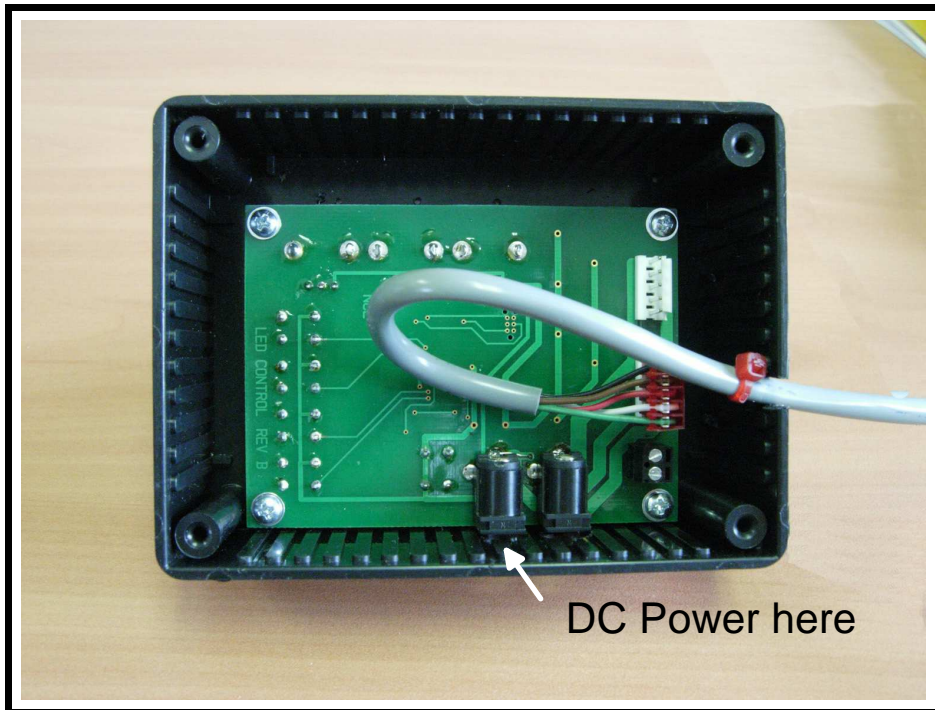

Once you have all the boards connected together in a string it is wise to test them.

Connect one end (the end without the wire tie on it) of the round gray cable to the white connector on the LED board.
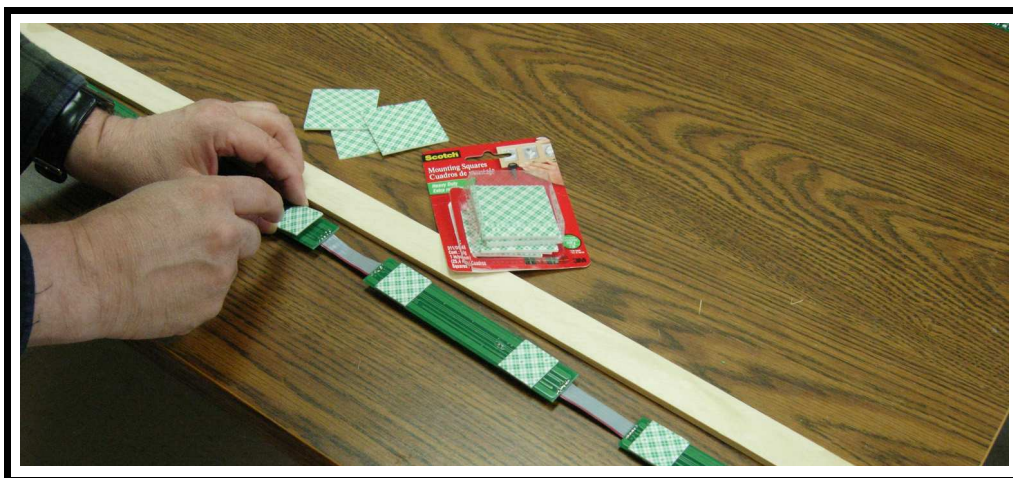
The remaining end connects to the controller.   Remove the 4 screws and cover from the bottom of the black controller box. Connect the gray wire to the white connector in the box indicated in the following photo. Route the cable through the slot in the control box. The wire tie on the cable will act as a strain relief for the cable.

DC Power here

Put the controller box cover back on. Plug the power supply in to the topmost jack (indicated in the photo above) on the side of the contoller. Don't worry if you get the connections wrong, nothing will get hurt. One of the power supply jacks powers one of the white connectors the other power supply jack powers the other white connector.

Plug the power supply into the wall power. Press the "SETUP" on the controller and use the knobs to vary the brightness of the different LED colors.

Once you are satisfied all lights are working it is time to install on (or above) the layout. We use double sided foam tape to attach the LED boards to the lighting supports. Handle the light board string with care as the wires break easily.

Setting lighting "scenes"

Press the SETUP button and use the knobs to get the lighting you desire.
To save this set up or "scene" press SETUP then press the desired SCENE button while still holding SETUP down..