

Delux Spinner Lighting Kit

By Madman Lighting Inc
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WARNING: This product contains small parts not suitable for children less than 12 years of age. DO NOT SWALLOW! MAY CAUSE CHOKING OR INJURY!

WARNING: Madman Lighting products are shipped in good working condition and are not to be modified or changed by the purchaser. Any change or attempt to repair, change, alter, modify or enhance Madman Lighting products in any way will void any warranty, written or implied.

ESD WARNING: Madman Lighting products contain sensitive electronic components and may be damaged by electrostatic discharge (ESD). Avoid shock, sparks, and static electricity by working on a grounded surface or by using a wrist-grounding strip.

Thank you for purchasing a Delux Spinner Lighting Kit from Madman Lighing. This kit will let you light the front “Bussard Collectors” of either the 1/350th scale NX-01 Enterprise kit or the re-issued TOS Enterprise kit with rotating lighting effects.

This kit is an accessory to other Madman Lighting kits like the Starship Lighting Kit and the BIG Starship Lighting kit. It runs on the same 12 to 18VDC power as those kits and draws about 100mA of current. To use this kit with either Starship kit, you will need a 12 to 18V DC wall transformer that can produce at least 300mA.

What You Get:

1 Delux-24 circuit card	2 Delux Spinner disks	Red and Black hookup wire
2 Three mm RED LEDs		Detailed Instruction Packet

What you will need:

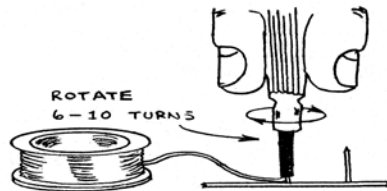
Tools: Xacto knife, Wire Wrap tool (Radio Shack), small wire cutters, and a simple volt-ohm meter to measure voltage and continuity.

Supplies: Power supply, either a 12 volt battery pack (eight AA batteries) or a 12 to 18 volt DC wall transformer that can produce at least 300mA.

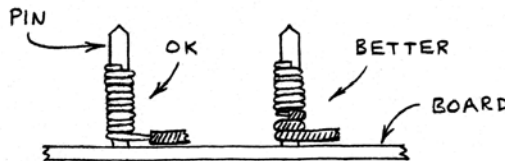
The Madman Lighting Delux Spinner is designed to provide the user with an easy to use set of cards to light the front of warp engines. Hookup is very easy.

No soldering is required when using the Delux-Flasher. All connections are made with wire wrap wire, which is safer and easier than soldering. It is also easily changed.

Wire wrapping is easy! The wire wrap tool comes with a handy stripper you can use to remove the insulation from the wire. Remove about an inch of insulation, and then insert

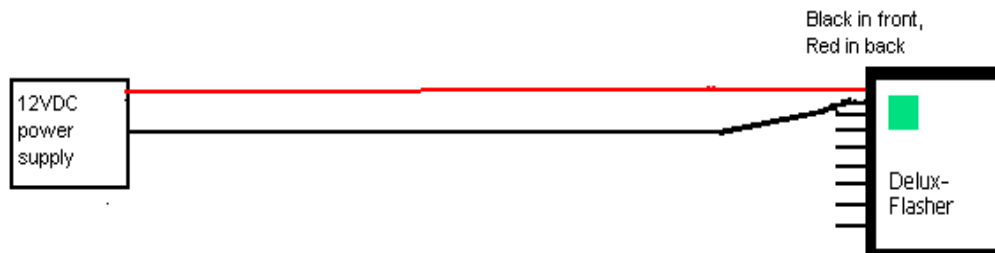


the bare end into the guide groove of the wrapping tool. Slip the tool down onto the post and rotate a few turns while letting it gently push itself upwards as the wire wraps around the post. The figure below shows some examples of finished wraps.

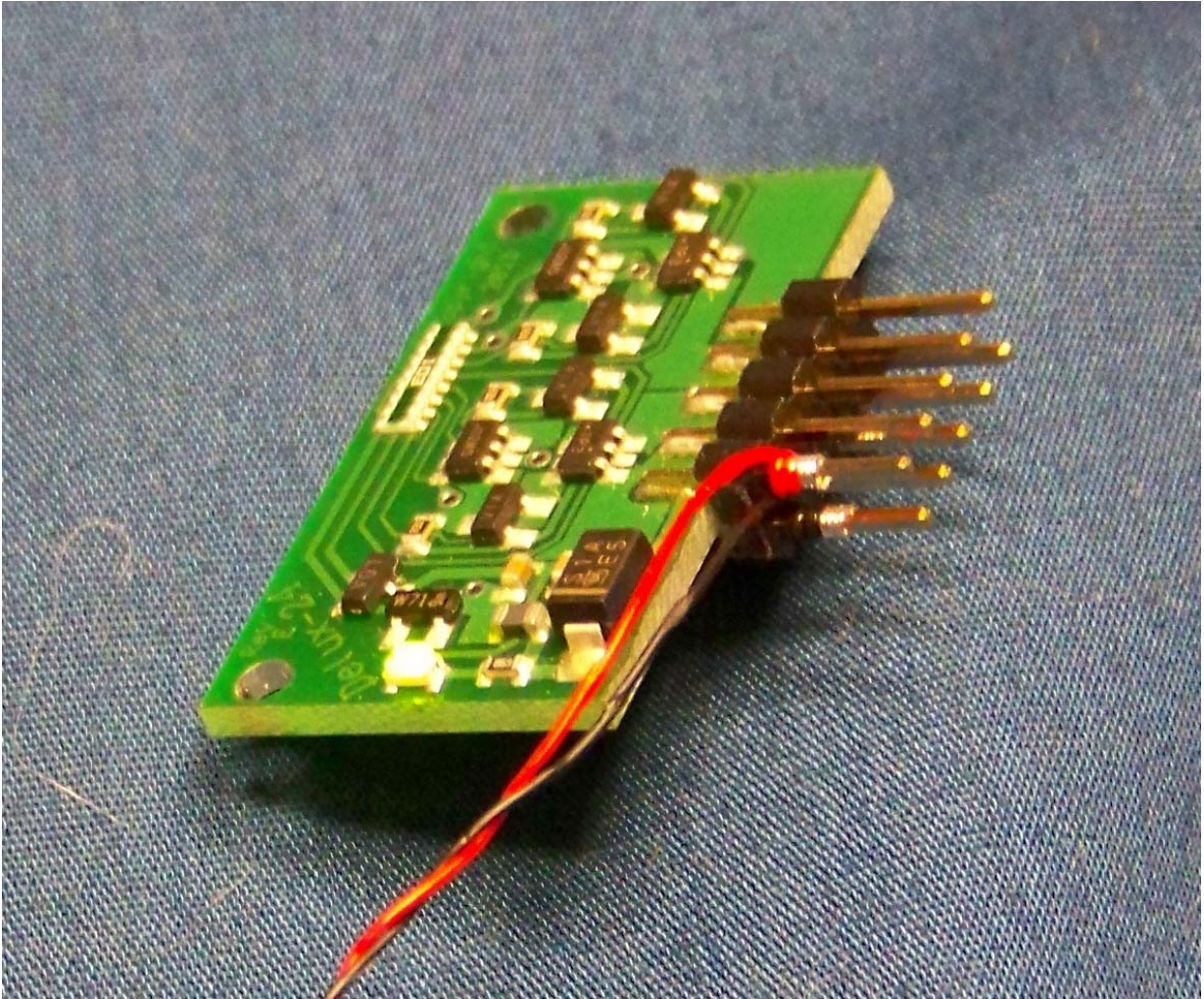


Power wires are provided as part of the kit. One length of twisted red and black wire is available for wiring your Delux Flasher to its LEDs and battery.

Connecting Power to the Delux-Flasher



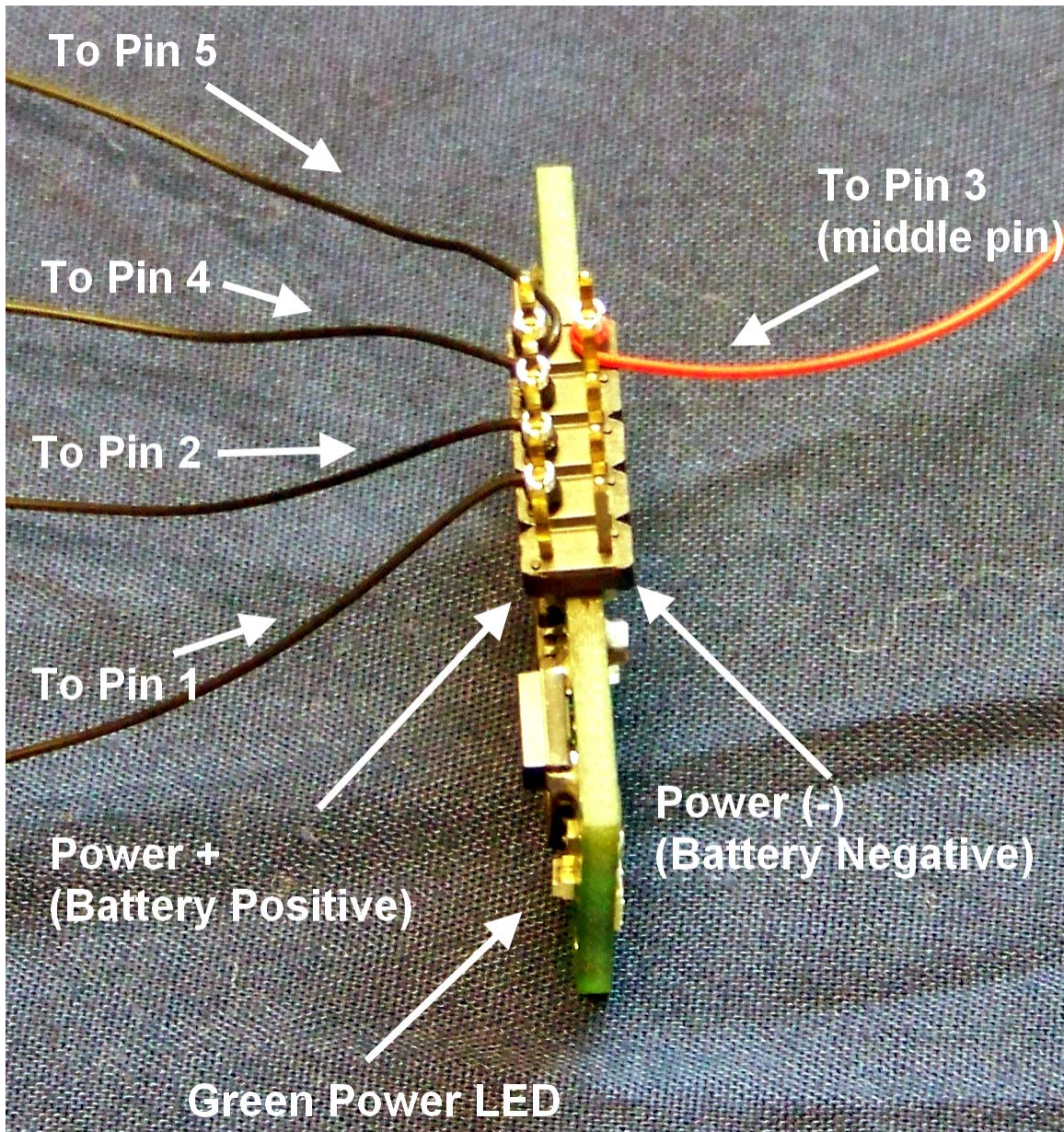
1. First, let's connect power to the Delux-Flasher. The Delux-Flasher has a tiny power-on LED built-in to let you know you've hooked up power right. Once we've got power right we can take the power hookup apart and mount it in the model.
2. Plug in your power source and measure the voltage to make sure you've hooked it up right. Outer terminal, Red wire, should be Positive. You should measure +12 volts DC with the red meter lead on the red wire, black meter lead on the black wire.
3. Turn it on! The tiny LED on-board the Delux-Flasher should now be lit. If not, reverse the wires and check that there are no breaks in the wires. The picture below shows power wires hooked to the Delux-Flasher board and the green LED on.

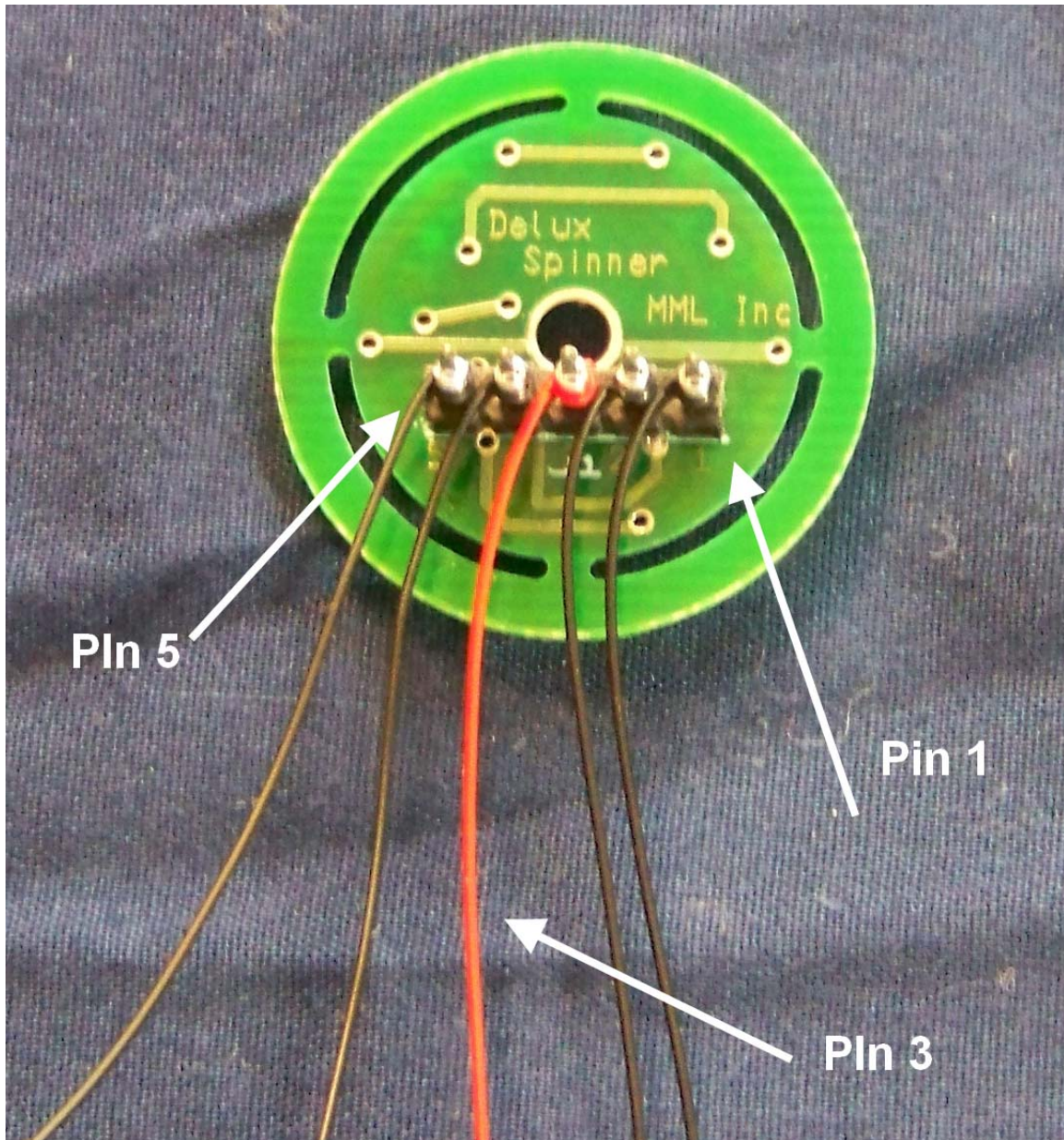


Power and Ground hookups, Red wire is battery positive (+), Black is battery negative (-), ie ground

Connecting the Delux Flasher to the Delux Spinner Disks

To connect the Delux Flasher to the Delux Spinner Disks you just wire-wrap the posts together, use the diagrams below as a guide:





Wire-wrap from the Delux Flasher to the Delux Spinner Disks the same for each disk. Cut the wire into 18" lengths, mount the Delux Flasher between the engine nacelles, and run four lengths of Black and one length of Red to each spinner disk.

Breakaway Tabs

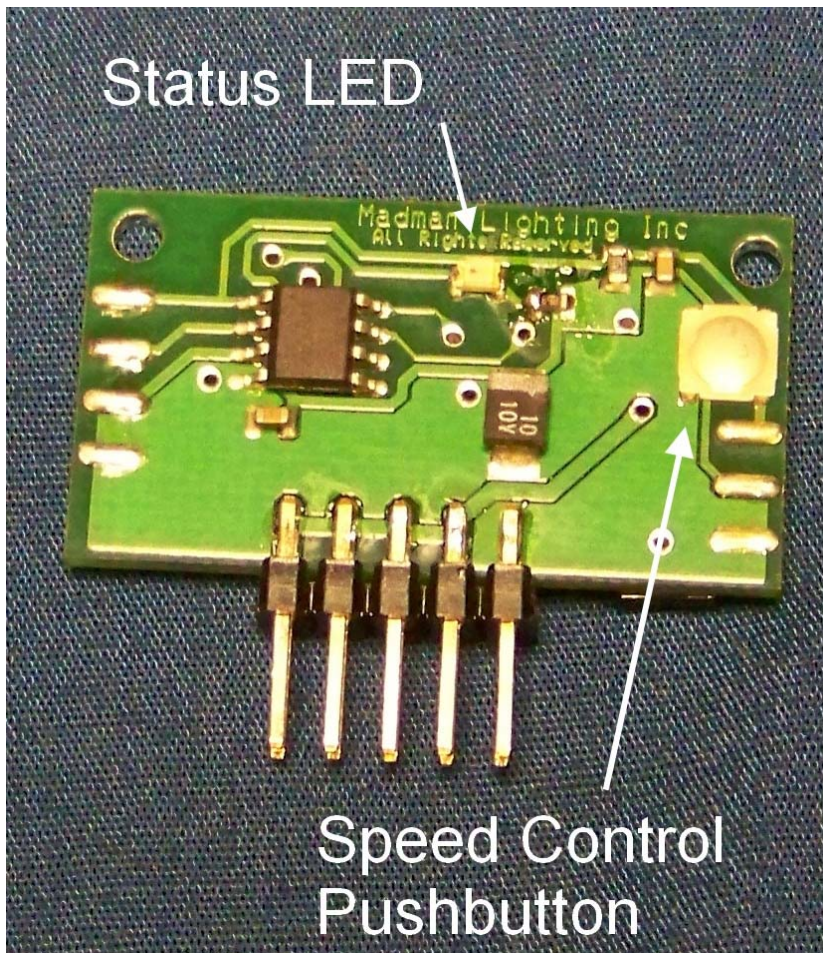
Delux Spinner Disks are sized to fit the engine nacelles of the 350th scale NX-01 kit but, by removing the outer disk and breakaway tabs, these disks will also fit the re-issued TOS Enterprise kit. Just snap off the outer ring and file down the breakaway tabs to shrink the disks to 3/4".

Center Hole for an Ambient Glow

Use the extra Red LEDs that come with the kit to create an ambient red glow in your engine nacelles. Mount the 3mm Red LED in the center hole of the Spinner disks and power them with another Madman Lighting product, like the Starship Lighting kit or the BIG Starship Lighting kit. (not supplied)

Spinning Speed Control

The Delux Flasher features adjustable speed control that is easy to use and stays set even after a power loss. Just press and hold the speed control button on the back of the board



Closeup of backside of Delux Flasher board, Speed control button in upper right corner.

The speed control button works like a clock radio button: Hold it and the speed slows more and more until it's released. Each time the button is pressed, the Status LED on the backside of the board will light. Blinking will slow more and more with each press until it suddenly is blinking at full speed again. This is a simple loop: blinking starts at full speed, goes slower, slower, slower, then full speed again as the button is pressed and held. You do not have to set this each time you turn it on, the Delux Flasher will remember your chosen speed until you change it by pressing the button again.