

TenaControls LLC

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- INSTRUCTIONS -

Instructions for Model#: IMPSDTR-A Lighting System used in the 1:2700 Scale Star Wars Imperial Star Destroyer Model from Revell or ZVEZDA

This unit is completely assembled and tested. The only thing you need to do is connect the LED's, LED Strips, and Momentary Switch to the JST connector as shown below in the Master Wiring Diagram. Then connect the dc power adapter (**not Provided**). Hot glue drops on the four sides of the board works well for locking into place. Placing this board inside the model in the center of the ship allows for easy wiring of all the led strips.

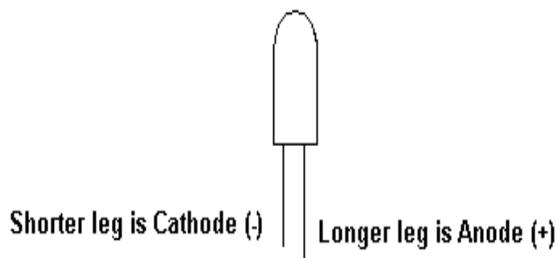
ITEMS YOU WILL NEED:

Soldering Iron
Solder
Cutter
Wire Stripper

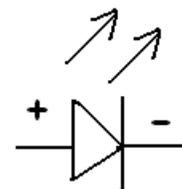
****Note:** When using the shrink tubing, you need to only slide the shrink tubing over one leg of the led to keep it from shorting against the other leg. Then use heat gun or flame from lighter to heat the shrink tubing until it shrinks around the wire connected to one of the led legs.

Digital Copy can always be requested by emailing sales@tenacontrols.com

How to distinguish a LED:



Anode
Side



Cathode
Side

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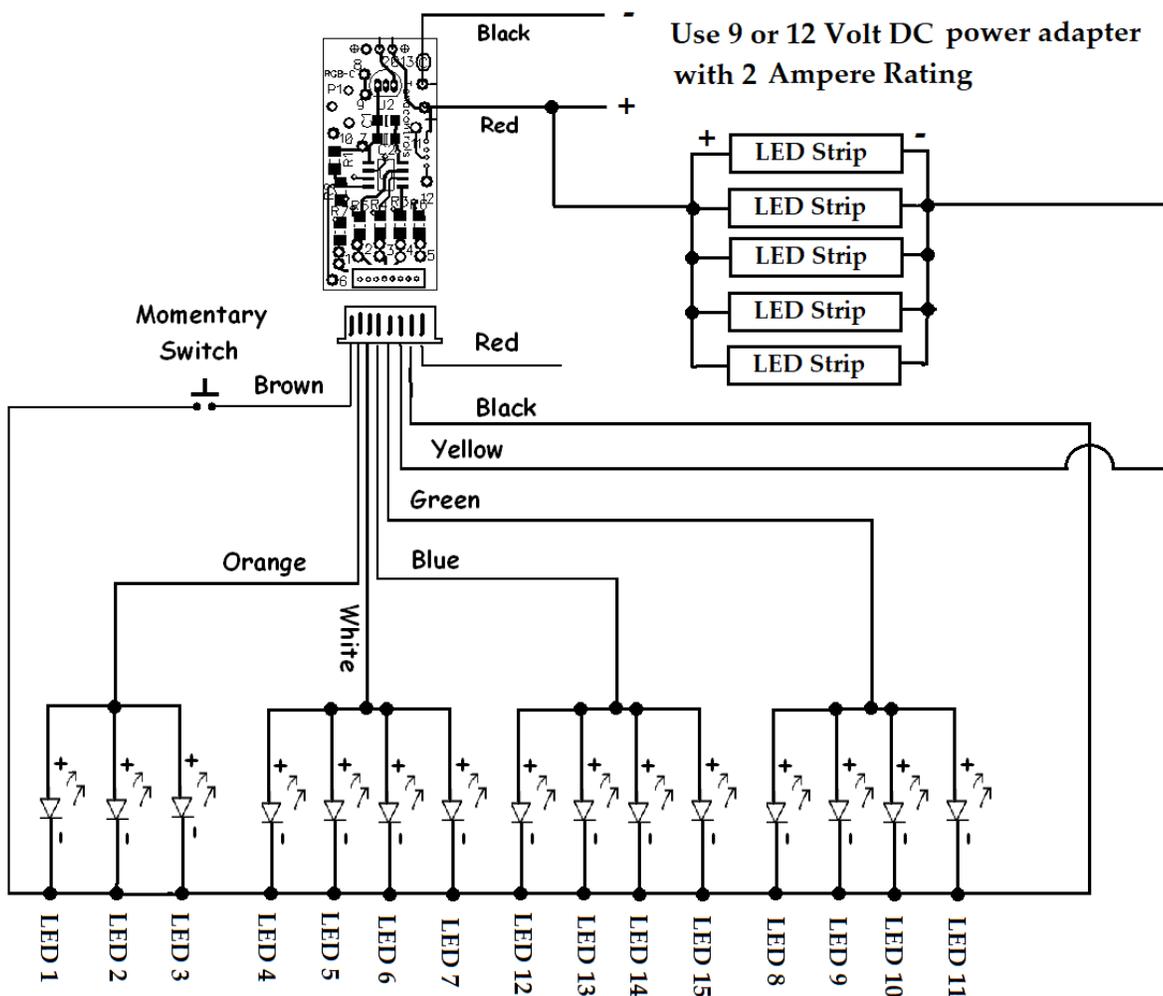
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Instructional Video_Link: <https://www.youtube.com/watch?v=8tRkCuUH-8c&feature=youtu.be>

Master Wiring Diagram



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Internal Lighting

1. LED Strips, the Five Cathodes (-), Minus side of the White LED Strips connect to the Yellow wire on mating connector. Then connect the Anodes (+), Positive side of the White LED Strips to the Red wire on the positive voltage of the main power. **See above diagram.**

Three Rear Engines Lighting

2. LED1-LED3, the Three Cathodes (-) of the White 5 mm LED's, connect to the Black wire on mating connector. Then connect the Anodes (+) of LED1-LED3 to Orange wire on mating connector. **See above diagram.**

Four Rear Engines Lighting

3. LED4-LED7, the Four Cathodes (-) of the White 3 mm LED's, connect to the Black wire on mating connector. Then connect the Anodes (+) of LED4-LED7 to White wire on mating connector. **See above diagram.**

Turbo Laser Bank One

4. LED8-LED11, Four Cathodes (-), three are Green 0805 SMD, LED8-LED10, LED11 is Green 1.8 mm, connect to the Black wire on mating connector. Then connect the Anodes (+) of LED8-LED11 to Green wire on mating connector. **See above diagram. The below pictorial locations of the Turbo Lasers are suggestions, placed them were ever you wish.**

Turbo Laser Bank Two

5. LED12-LED15, Four Cathodes (-), three are Green 0805 SMD, LED12-LED14, LED15 is Green 1.8 mm, connect to the Black wire on mating connector. Then connect the Anodes (+) of LED12-LED15 to Blue wire on mating connector. **See above diagram. The below pictorial locations of the Turbo Lasers are suggestions, placed them were ever you wish.**

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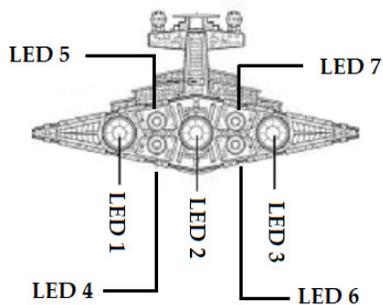


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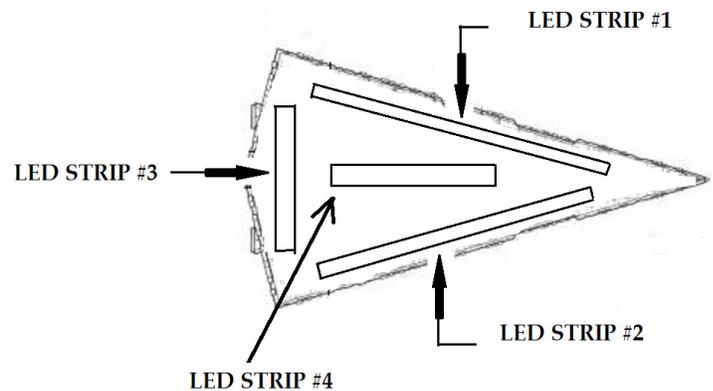
Activation Momentary Switch

6. Connect one side of momentary switch to the Black wire on mating connector. Then connect the other side of the momentary switch to the Brown wire on mating connector. Press once to fire one round of Turbo Lasers bank one and one round of Turbo Lasers bank two. Press twice quickly to enter **"Start Up Sequence Mode"**. This will shut all the lights off in the ship, then the Interior Lights will come back on, the Rear Engines will come back on, Turbo Lasers Bank One and Turbo Lasers Bank Two will fire a round. **See above diagram.**

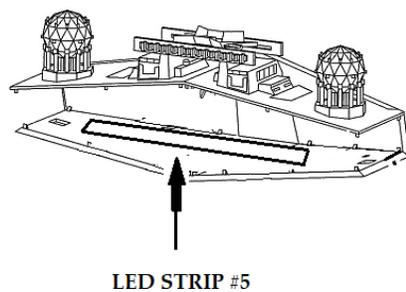
Rear View



Led Strip Locations from top View



Bridge LED Strip



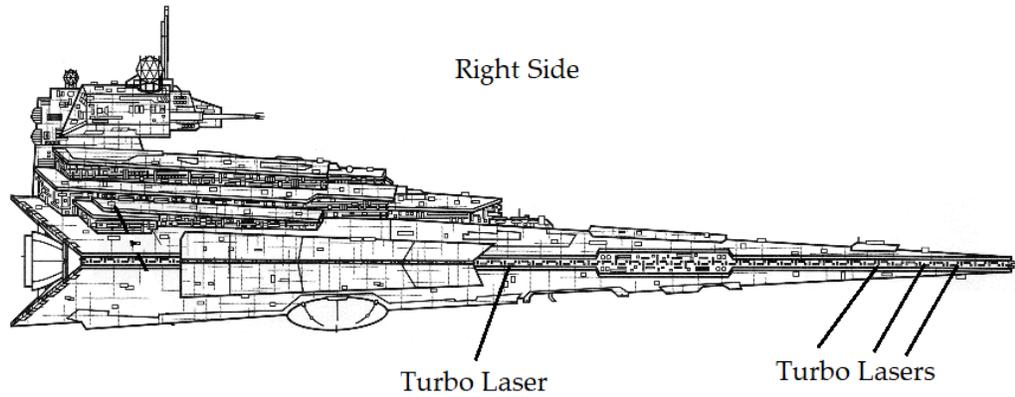
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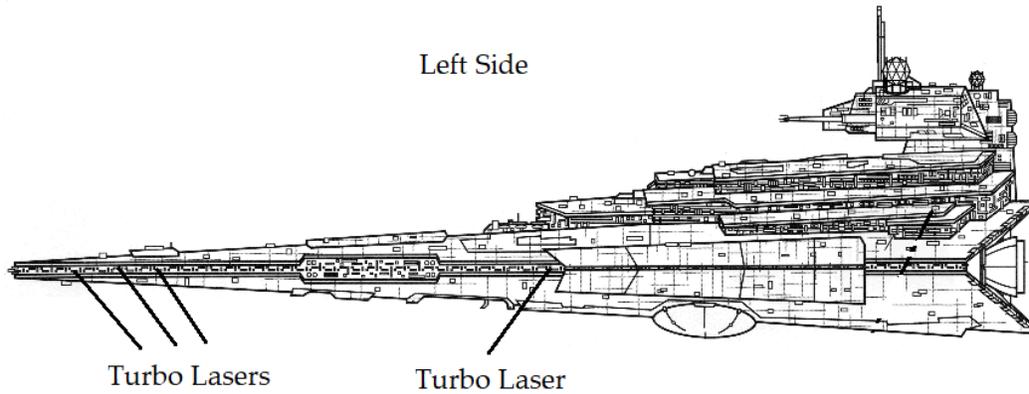


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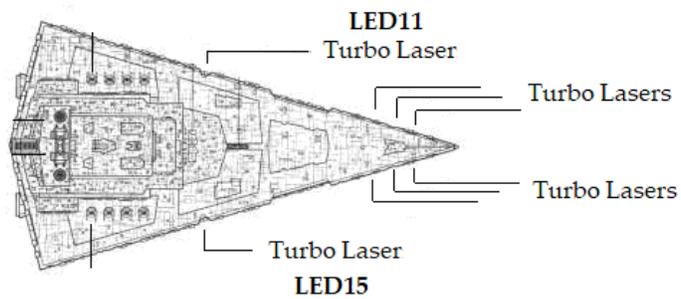
Right Side View



Left Side View



Top View



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Warranty

TenaControls LLC warrants that the control boards sold meet TenaControls LLC specifications and are adequately contained, packaged and labeled and conform to the promises and affirmations of fact made on the container and label. THE FOREGOING WARRANTIES ARE EXCLUSIVE, AND ARE IN LIEU OF ALL OTHER WARRANTIES (WHETHER WRITTEN, ORAL OR IMPLIED) INCLUDING WARRANTY OR MERCHANTABILITY IN OTHER RESPECTS THAN EXPRESSLY SET FORTH ABOVE AND WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

In the event that there is a breach of express warranty by the manufacturer made in connection with the purchase of this product, if any, the sole remedy of any buyer shall be to return the product along with original sales receipt, at **buyer's expense** for repair (or replacement of the product if repair is impossible) to the manufacturer's facility in the Commonwealth of Massachusetts, located at 22 Hancock Street, Milford, MA 01757. Some states do not allow the exclusion or limitation of any incidental or consequential damages, so the above limitation may not apply to you. Nothing herein contained shall be construed to be a waiver by the manufacturer of any of the obligations imposed upon said buyer under the laws of the Commonwealth of Massachusetts except as herein specifically stated.

This warranty is enforceable only by the buyer of the product or a person in the buyer's immediate family. This warranty is enforceable for a period of **FIVE YEARS** from the date of purchase. Some states do not allow limitations on how long an implied warranty lasts, so the above warranty may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Warranty Void if:

- A) Product is altered in any way.
- B) Used for other than its intended use.
- C) Buyer mishandling.