

## TenaControls Brings Models to Life

## Instructions for Model: PHSTNS-RLT-B Navigation, Strobe, Front Torpedo's, Rear Torpedo's, and Phasor Board for the Star Trek Reliant NCC-1864

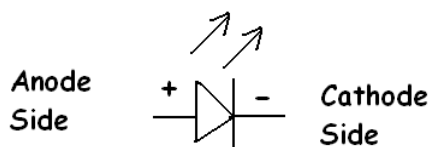
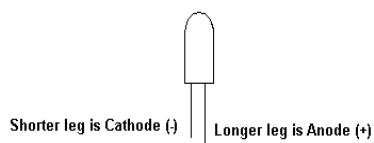
This unit is completely assembled and tested. No soldering is required on the board due to the three micro JST connectors. The only thing you need to do is connect up the led's and the resistors as well as the momentary switches to fire the Torpedo's and Phasor. Then just plug in 9 volt battery (**not included**) or dc power adapter from 9 to 12 volts and throw the switch (**not included**) on. Hot glue around the four corners of the printed circuit works well for locking into place. Or use the 4 mounting holes for a 4-40 diameter bolt.

**How to fire weapons:** Press the Torpedo switch once to fire the Front Torpedo's. Press the Torpedo switch twice quickly to fire the Rear Torpedo's. Press the Torpedo switch three times quickly to fire both front and rear Torpedo's as well as the Phasor. Press the Phasor switch once to fire the Phasor.

Items you will need: Soldering Iron, solder, cutter and 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.

How to distinguish a led:



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### CONNECTOR # 2

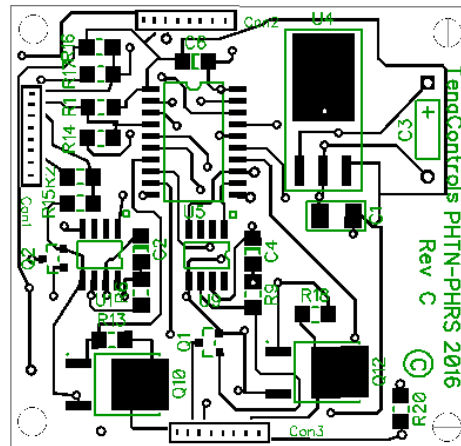
Blue  
White  
Orange  
Brown

Green  
Yellow  
Black  
Red

### CONNECTOR # 1

Blue  
White  
Orange  
Brown

Green  
Yellow  
Black  
Red

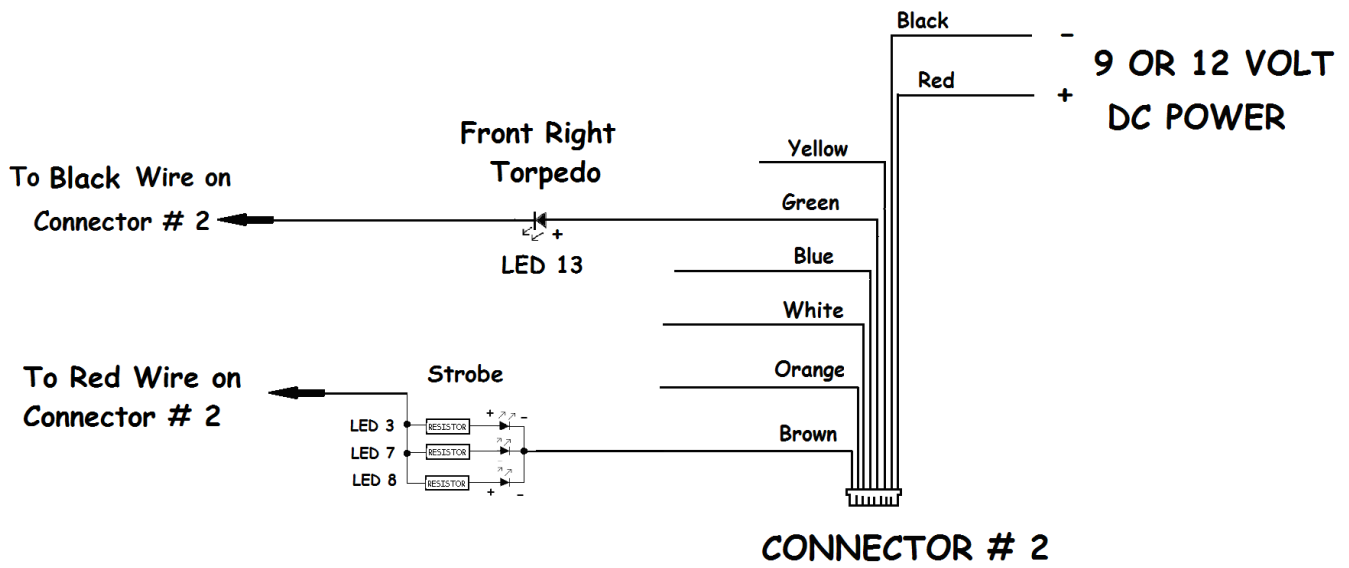
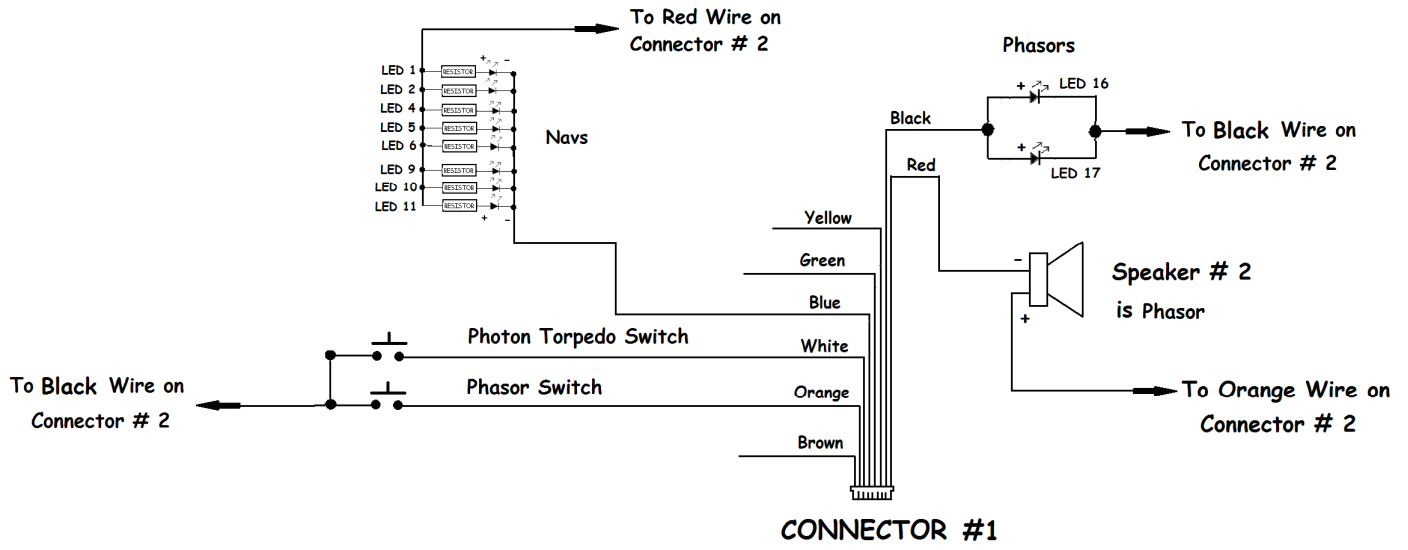


Brown  
Orange  
White  
Blue

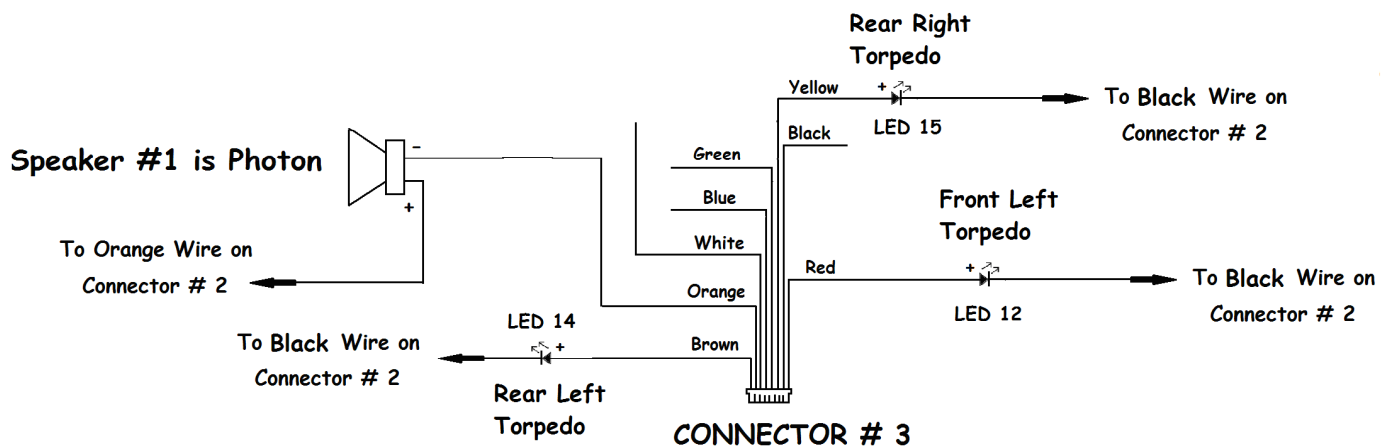
Red  
Black  
Yellow  
Green

### CONNECTOR # 3

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Strobe Side

1. **Three White LED3, LED7 and LED8.** The Cathodes (-) of the Strobe led's will connect to the Brown wire on JST Connector #2. Then connect to their respective resistor to Anodes (+) and the other end of resistor will terminate to the Red wire on JST Connector #2. See above diagram.

Navigation Side

2. **Four White LED1, LED4, LED5 and LED10.** The Cathodes (-) of the Navigation led's will connect to the Blue wire on JST Connector #1. Then connect to their respective resistor to Anodes (+) and the other end of resistor will terminate to the Red wire on JST Connector #2. See above diagram.
3. **Two Green LED2 and LED11.** The Cathode (-) of the Navigation led will connect to the Blue wire on JST Connector #1. Then connect to resistor to Anode (+) and the other end of resistor will terminate to the Red wire on JST Connector #2. See above diagram.

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4. **Two Red LED6 and LED9.** The Cathode (-) of the Navigation led will connect to the Blue wire on JST Connector #1. Then connect to resistor to Anode (+) and the other end of resistor will terminate to the Red wire on JST Connector #2. See above diagram.

**Front Torpedo's**

5. **Two Red LED12 and LED13.** The Cathodes (-) of the Front Torpedo led's will connect to the Black wire on JST Connector #2. Connect Anode (+) of LED12 to the Red wire on JST Connector #3. Connect Anode (+) of LED13 to the Green wire on JST Connector #2. See above diagram.

**Rear Torpedo's**

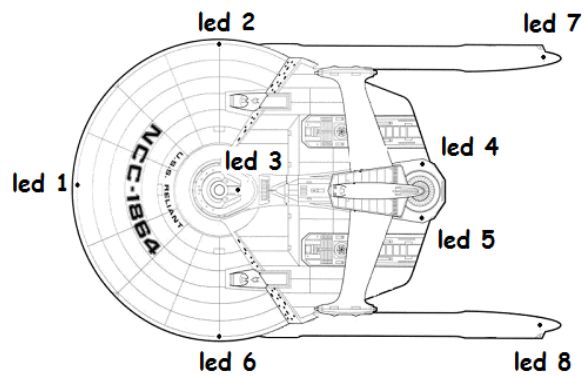
6. **Two Red LED14 and LED15.** The Cathodes (-) of the Rear Torpedo led's will connect to the Black wire on JST Connector #2. Connect Anode (+) of LED14 to the Brown wire on JST Connector #3. Connect Anode (+) of LED15 to the Yellow wire on JST Connector #3. See above diagram.

**Front Phasors**

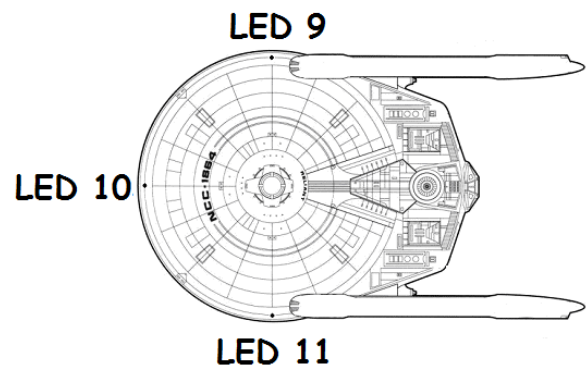
7. **Two White LED16 and LED17.** The Cathodes (-) of the Front Phasor led's will connect to the Black wire on JST Connector #2. Connect Anode (+) of LED16 to the Black wire on JST Connector #1. Connect Anode (+) of LED17 to the Black wire on JST Connector #1. See above diagram.

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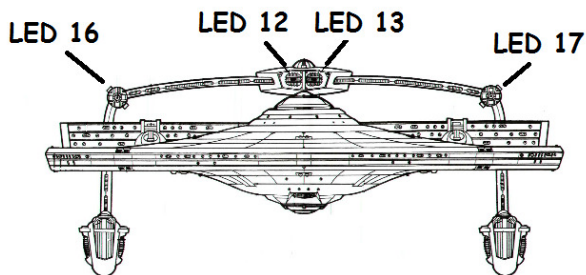
Top View of led locations



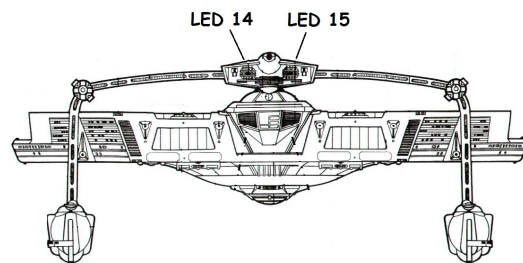
Bottom View of led locations



Front View of led locations



Rear View of led locations



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## Warranty

TenaControls warrants that the control boards sold meet TenaControls 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.