Introduction

Congratulations on purchasing the CyclotronTVG PackLights Expansion Kit that adds color changing RGB LEDs to you Cyclotron lights.

The CyclotronTVG Kit plugs in directly to the GBFans PackLights Board, replacing the cable that had the 4 Red Cyclotron LEDs and the single White Vent Strobe LED. The RGB Cyclotron LEDs can dynamically changes colors between Red, Green, Blue and Orange to match the Sound Board's TVG modes.

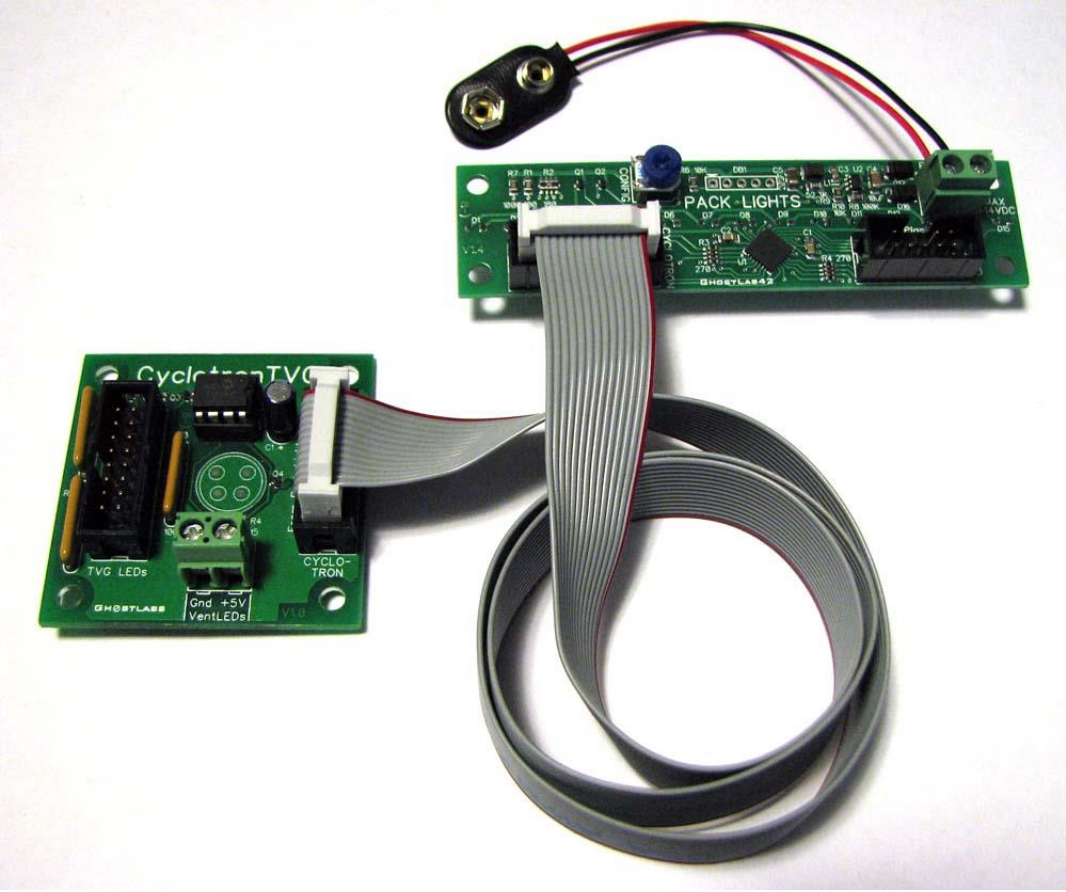
The Cyclotron Kit features:

- 4 High Brightness RGB LEDs (one for each Cyclotron window)
- 3 High Brightness White LEDs and 3 current limiting resistors (one for each White LED)
- CyclotronTVG controller board to drive the new LEDs
- 23” 14 pin ribbon cable to connect the PackLights board to the CyclotronTVG board
- 11” 16 pin ribbon cable with the 4 RGB LEDs to plug into the CyclotronTVG board
- Works directly with the voltage supplied by the PackLights board
- The White LEDs will need to be attached to a cable (not supplied) and located where you want the Vent flashing to take place.
- No configuration settings – the PackLights board will recognize the CyclotronTVG board when powered up and the Cyclotron colors will automatically be selected for the different pack modes.

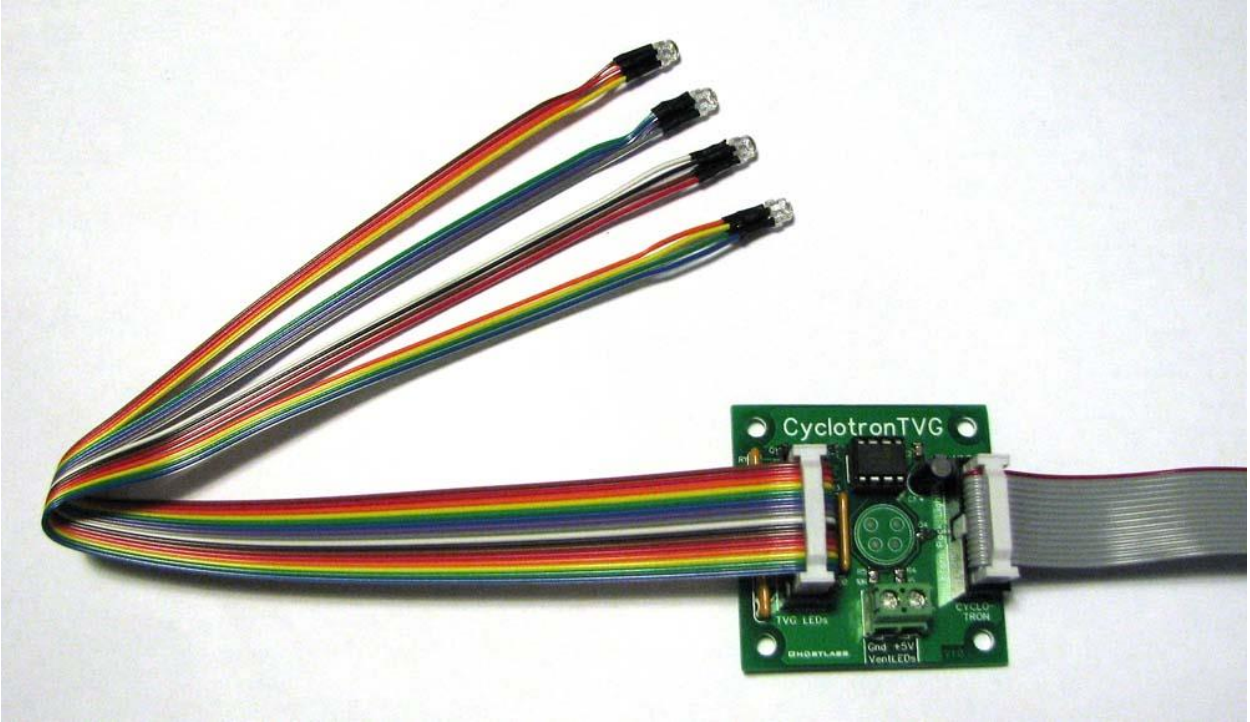
Installation

1. Replace the PackLights LED cable with the included 14 pin Grey Ribbon Cable. Both ends of the cable are identical and the cable is keyed to only go in the socket one wat, so just plug in either end to the PackLights board. The PackLights board labels the connector “CYCLOTRON”

2. Plug the other end of the 14 pin Grey Ribbon Cable into the CyclotronTVG board. The cable is keyed to only go in one way and the socket is labeled “CYCLO-TRON”.



3. Plug in the 16 pin Rainbow Ribbon Cable that has the four High Brightness RGB LEDs into the “TVG LEDs” socket. The cable is keyed so it can only go in one direction.



4. Mount the Cyclotron TVG board near the Cyclotron windows where you know the 4 LEDs can reach the Cyclotron windows and reflectors.

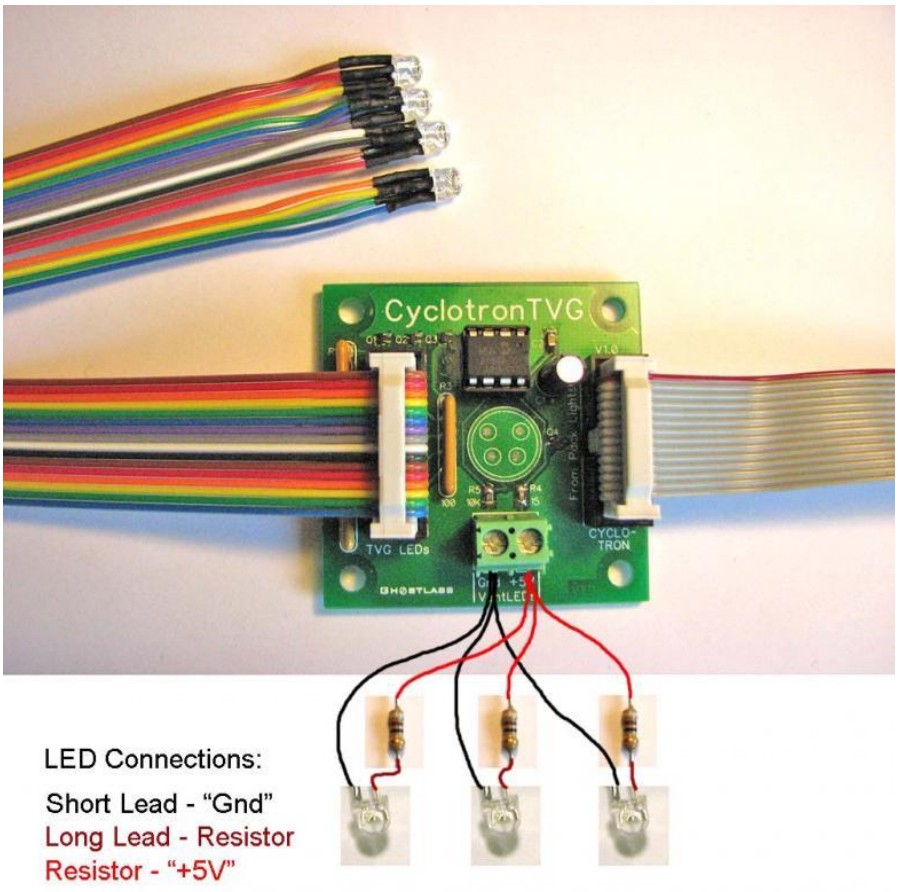
5. Decide how many (one, two or three) White LEDs you are going to want for Vent Strobing and follow the “White LED connections” instructions that describe how the LEDs need to be wired up to the CyclotronTVG board. Some soldering (or crimping) will be required and you will need to supply your own wire.

White LED connections

Included are three White LEDs and three current limiting resistors.

For each white LED connect:

- "+5V" screw terminal --- Resistor --- Anode of LED (long lead), and
- Cathode of LED (shorter lead) --- "Gnd" screw terminal on CyclotronTVG board



You can connect the three Red wires together close to the resistors and just bring back a single Red wire to the "+5V" screw terminal. You can also do something similar for the Black wires: connect them together close to the LEDs and bring back a single Black wire to the "Gnd" screw terminal.

The CyclotronTVG board can easily handle one, two or three of the White LEDs (each LED with its own series resistor), so you can choose how many White LEDs you want to connect.

The wire does not have to carry very much current, so 28AWG or thicker (lower AWG number) will work fine. Stranded wire is preferred since it is more flexible, but solid wire will also work.