

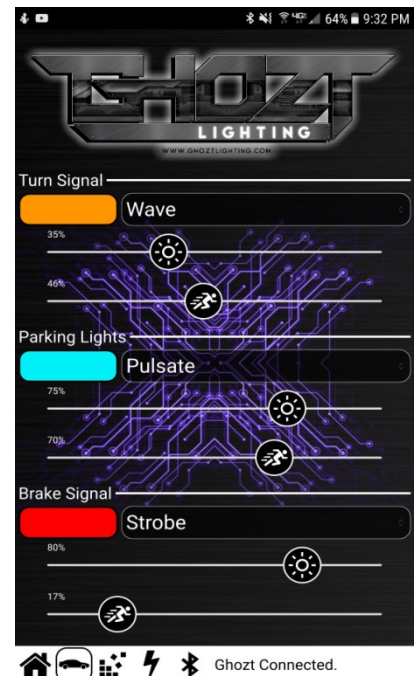
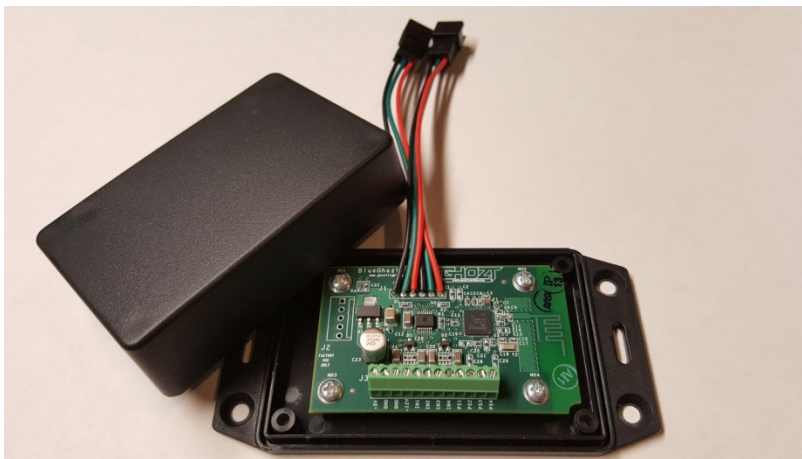
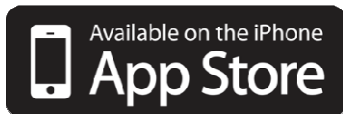


# BlueGhozt v1

## Installer's Guide

### Features Summary

- Fully customized via Bluetooth App
- Controls up to 600 independent addressable RGB LEDs
- Works with WS2812 and SK6812 RGB LEDs (neopixel/neoprim)
- Customizable vehicle signaling functions
- Customizable showmode animations
- Future software updates delivered wirelessly over Bluetooth
- 4 control inputs
- 4 High-power outputs
- ABS plastic enclosure included
- Low-power operation (<30mA)
- Professionally built in the USA





## Contents

Connection List.....	3
Controller Inputs .....	3
Controller Outputs .....	4
Neopixel Animation Functions.....	5
Parking Lights .....	5
Turn Signals .....	5
Brake Lights.....	5
Showoff Modes .....	5
Absolute Maximum Ratings .....	6

## Connection List

### Controller Inputs

#### Power Inputs

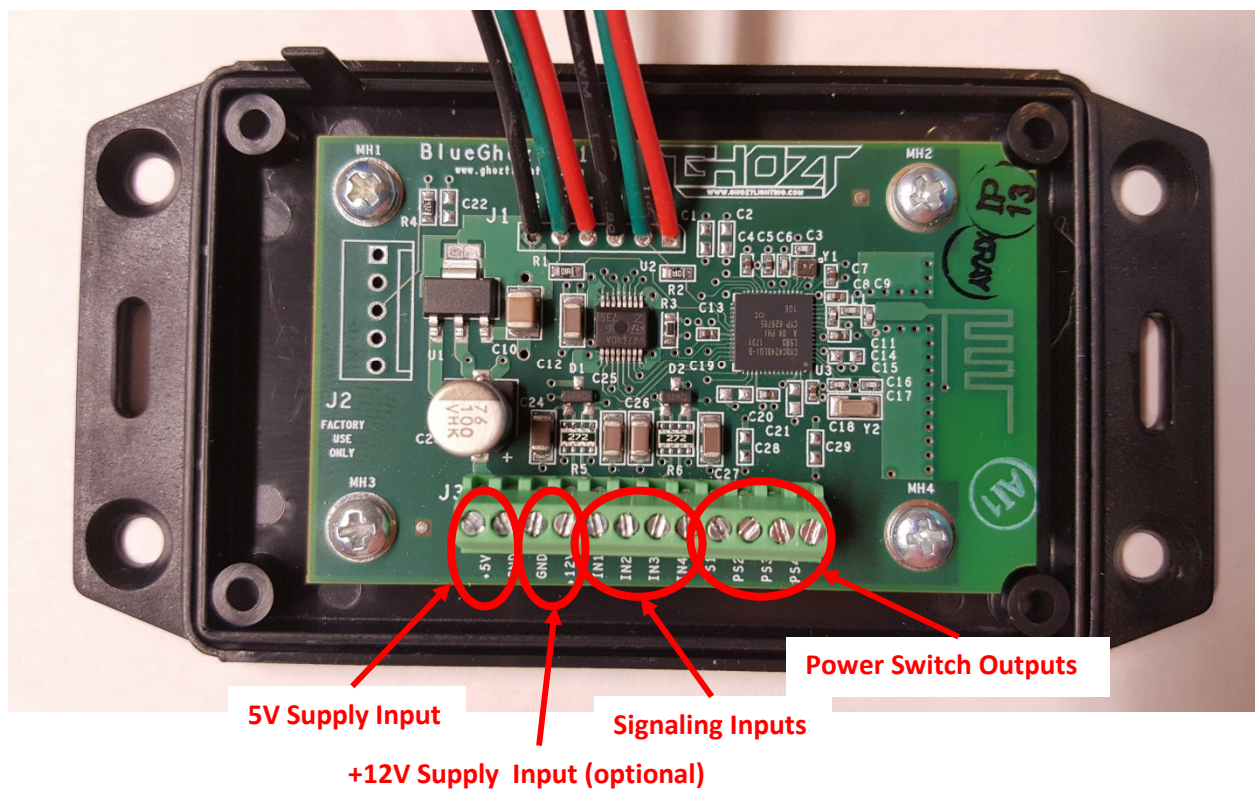
The power inputs supply power to the sequencer. It will not function without these connections.

- **Ground** – Connect this to the vehicle's chassis ground or negative battery terminal
- **+5V** – (required) Connect to an always-on +5V regulated supply
- **+12V** – (optional) Connect to a +12V supply for power switches

#### Signal Inputs

All signal inputs are optional.

- **In1-Brake** – Connect this to the vehicle's 12V brake signal
- **In2-Park** – Connect this to the vehicle's 12V parking signal
- **In3-Left Turn** – Connect this to one of the vehicle's 12V left turn signal
- **In4-Right Turn** – Connect this to one of the vehicle's 12V right turn signal



## Controller Outputs

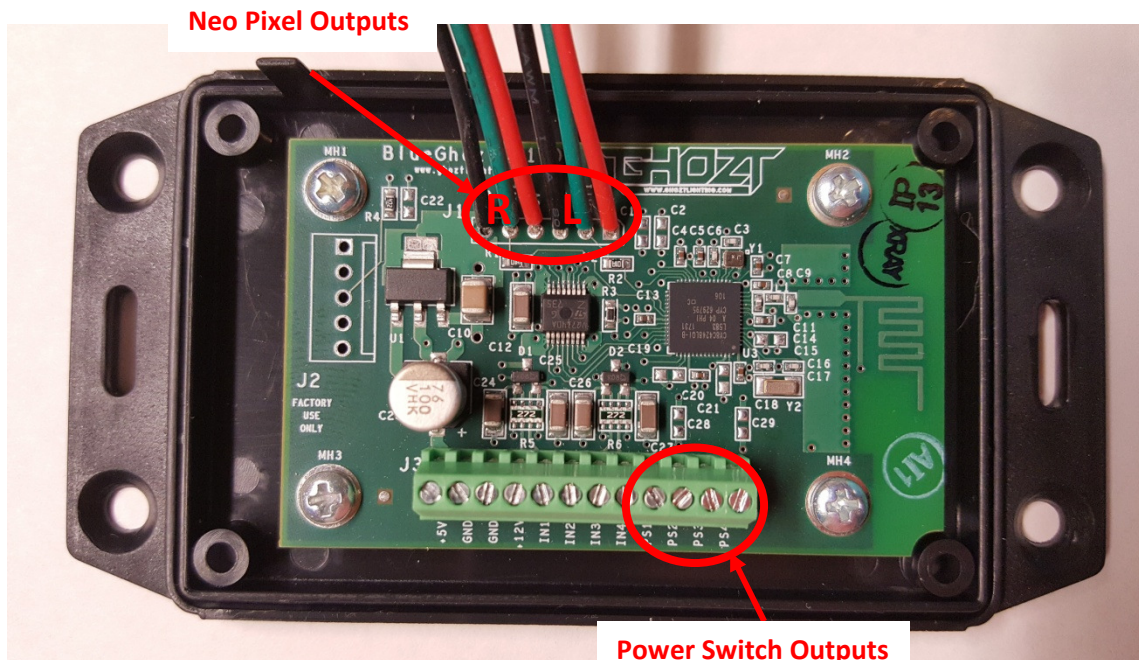
### Power Switches

These are four high-side switches with high current output capability. These pins will output the voltage from the +12V supply pin, which can be any voltage up to 30V. These pins have several operating modes, see the BlueGhozt App user guide for details.

### Neopixel Strips

These connections provide power and control signals for the Neo-pixel LED strips. These pins are compatible with WS2812 and SK6812 LED arrays.

Power is supplied to these connections directly from the +5V input pin. Bulk capacitance is provided but there is no regulator included. The 5V rail requires an external regulator that is capable of supplying enough current for the LEDs that are connected.







## Neopixel Animation Functions

For additional details about animations and how to set them up, see the BlueGhozt App User's Guide.

### Parking Lights

BlueGhozt accepts a parking light on/off input which will control the parking lights. Parking lights will play an on/off transition sequence and will remain on while other signaling functions are idle.

### Turn Signals

BlueGhozt accepts two turn signal inputs which will control the turn signal animations associated with each strip. Several turn signal styles are selectable from the BlueGhozt app.

### Brake Lights

BlueGhozt accepts a brake input which will cause the LEDs to display a brake light animation. Several brake animation styles are selectable from the BlueGhozt app.

### Showoff Modes

Showoff modes are customizable within the BlueGhozt app. Multiple customized showmodes can be saved and triggered on and off via the app.



## Absolute Maximum Ratings

Temperature.....	-40C to +85C
Voltage, +5V Supply Pin (relative to Ground pin).....	-15V to 15V*
Voltage, +12V Supply Pin (relative to Ground pin).....	-.3V to 25V
Voltage, Signal Input Pin (relative to Ground pin).....	-.5V to +17V
Current, high power output pins.....	0 to 2.5A
Current, neopixel power pins.....	0 to 3A

\*Applying an excess over 5.5V can permanently damage attached neopixel devices.