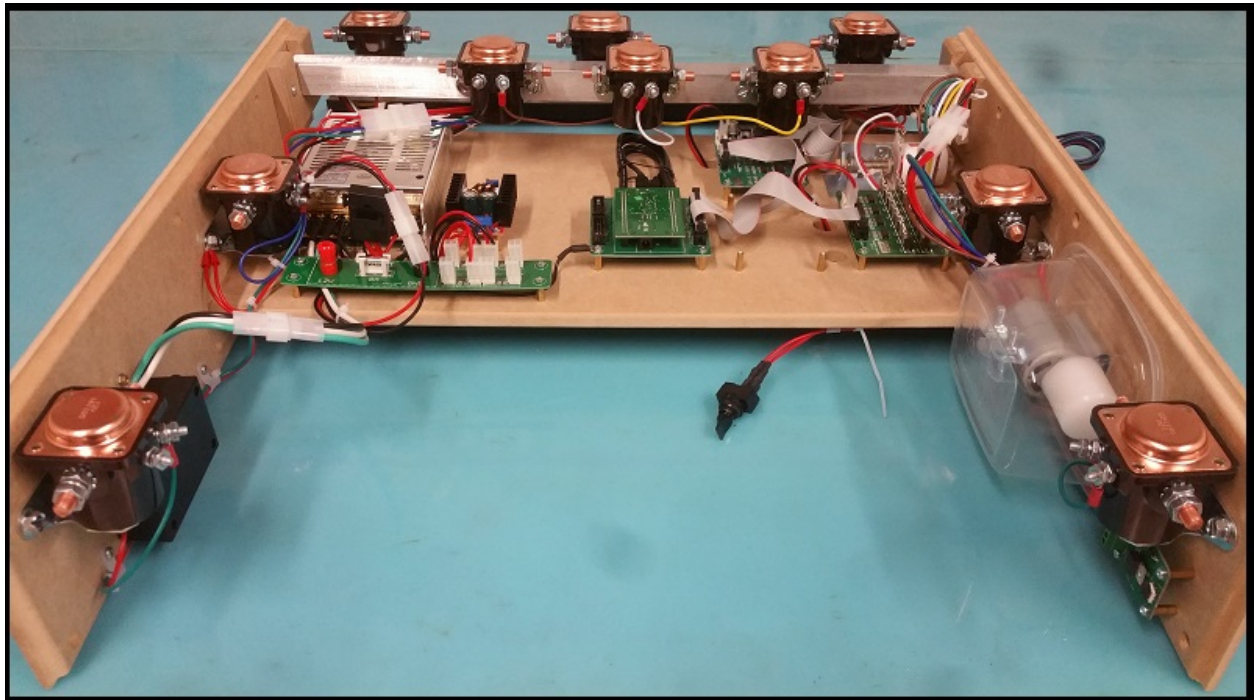EZInstall Kit V2 Installation

Mounting the Kit

The kit should be mounted as shown in the illustration above. Recommended positioning would be to install as far forward in the cabinet as possible, putting the flipper solenoids (furthest forward solenoids on side panels) close to the flipper switches ensuring the best response and feedback for them as possible. Ensure that at least ¾" (19mm) space is left between the top of the solenoids and the bottom of the playfield monitor.

Install the side panels with the slot opening to the rear of the kit on a slight downward angle toward the front and in a parallel position in the cabinet and slide the mainboard into the slot from the rear.

Use mounting screws appropriate in length to the thickness of your cabinet construction and install them in the mounting holes provided making sure not to puncture the outside face of the cabinet.

Power Connections (AC MAINS)
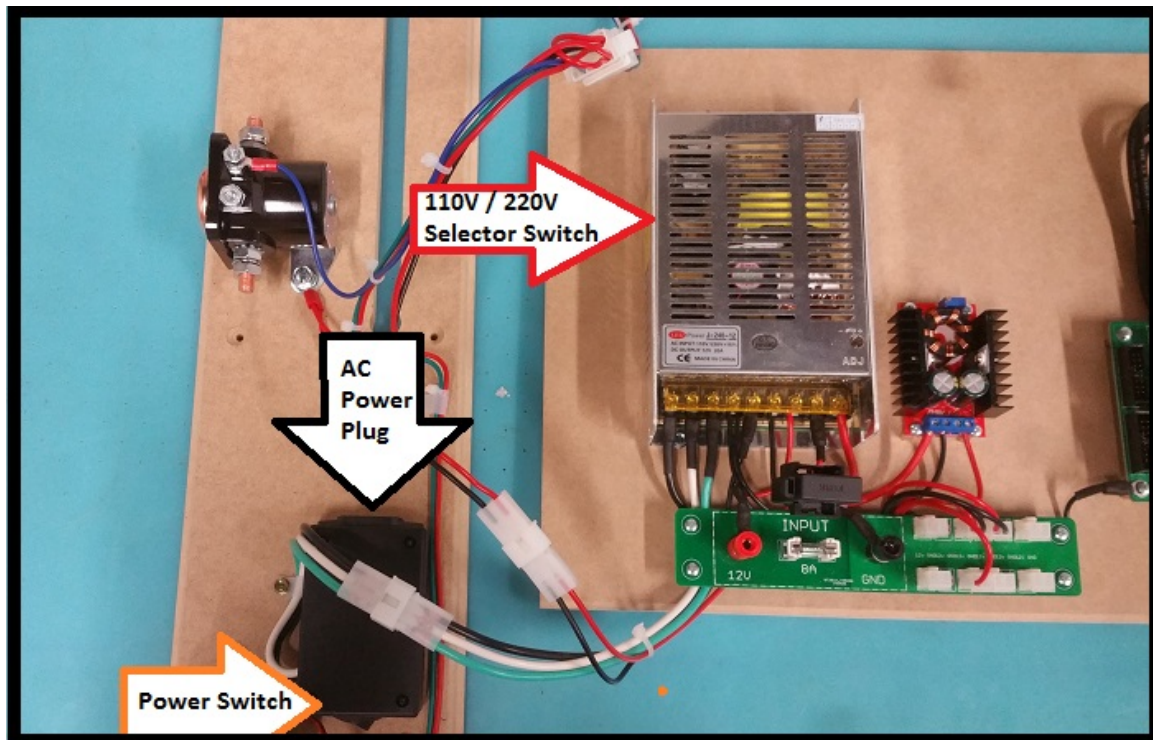
While the supplied power supply has built in short circuit and thermal overload a 10A external circuit protector (circuit breaker) has been installed in the power box. If at any time the power to the kit is interrupted, please check and reset the circuit breaker if necessary. **Make sure the 110v /220v selector is set to the correct AC voltage for your country.**

Installation of the wiring using a plug vs hard wiring to the mains is highly recommended.

!! AC MAINS ELETRICITY IS DANGEROUS AND CAN KILL YOU. If you have any doubts about your capabilities it is recommended that you contact a professional to install the unit for you !!!!

Left and Right Panel Connections

Connect the left panel connectors to the corresponding connectors on the mainboard as shown in the illustration below.
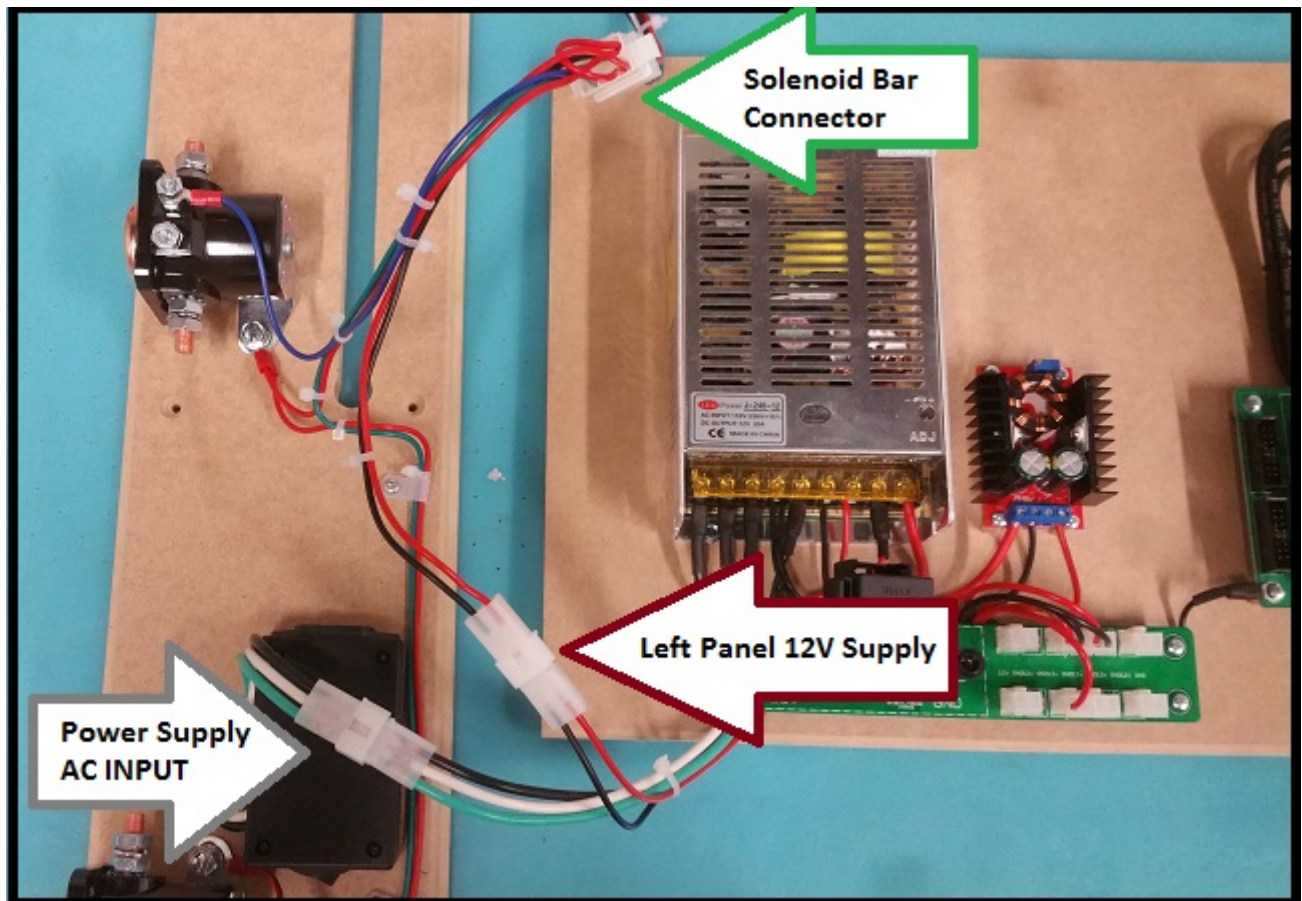
The open ports on the 12V distribution board are provided to supply additional 12V toys if desired.

There is a 10A standard automotive blade fuse in the black fuseholder below the power supply protecting the booster module (red board) which powers the replay knocker. If the replay knocker ceases to function please check and or replace the 10A fuse. **Do Not Exceed a 10A Rating** when replacing the fuse.

Connect the right panel connectors to the corresponding connectors on the mainboard as shown in the illustration below.

Right
Panel
12V
Supply

From Left to Right
**Right Sling, Right
Flipper, Shaker Motor**
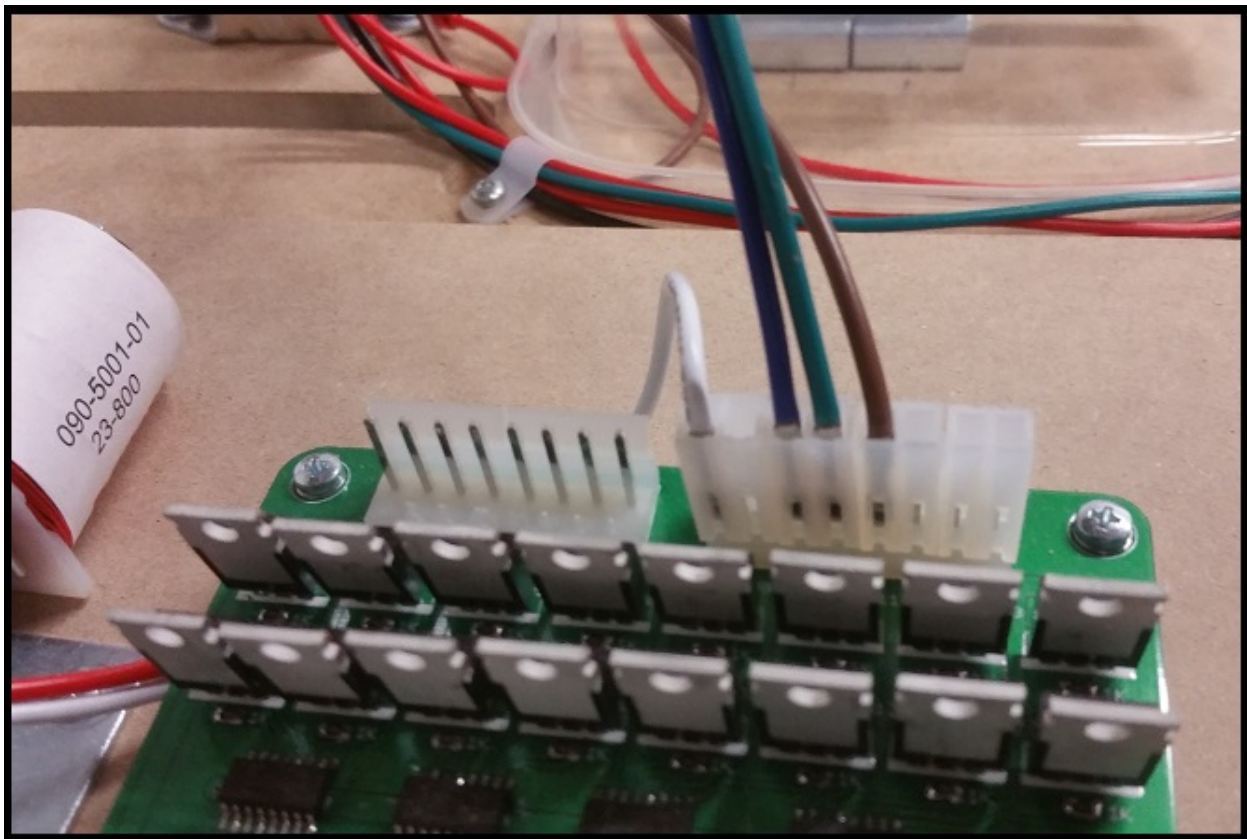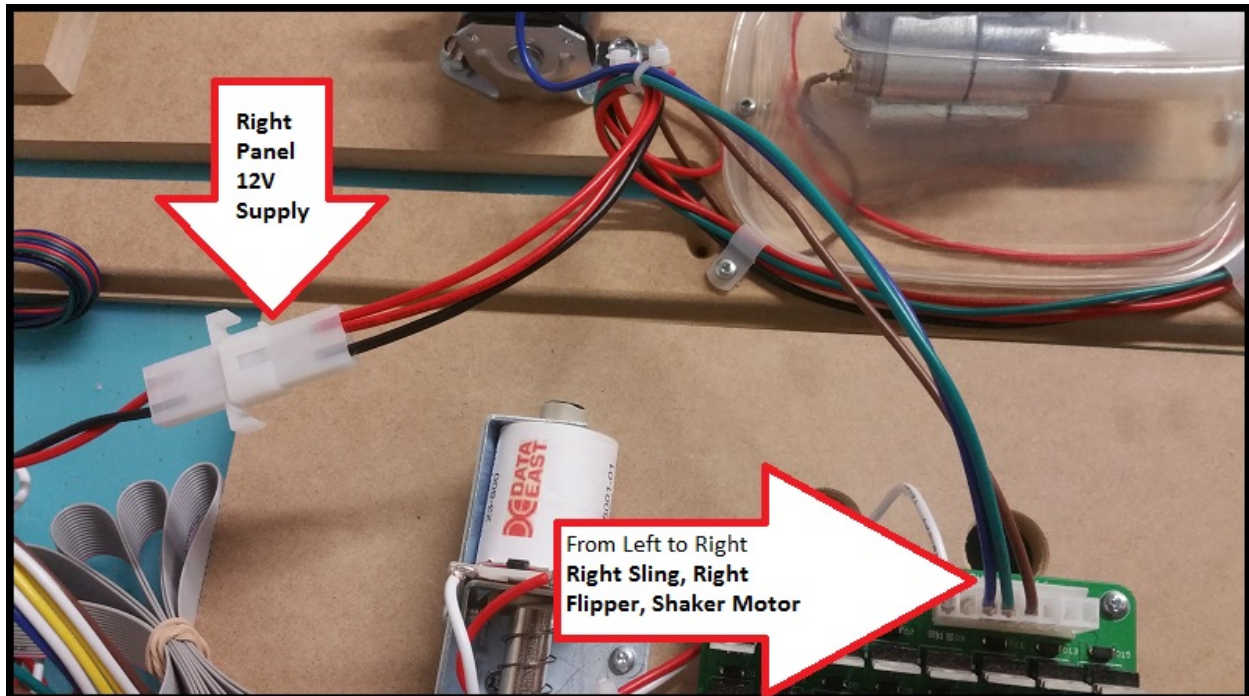
The 4 open terminals on the Booster Board connector can be used for future expansion (beacons, fan, button lighting, etc.)

To expand the system, simply connect the negative side of the toy to the open port on the booster board and connect the positive side of the toy to the appropriate positive voltage source (12V is supplied by the kit, other voltages will require an additional power supply.)

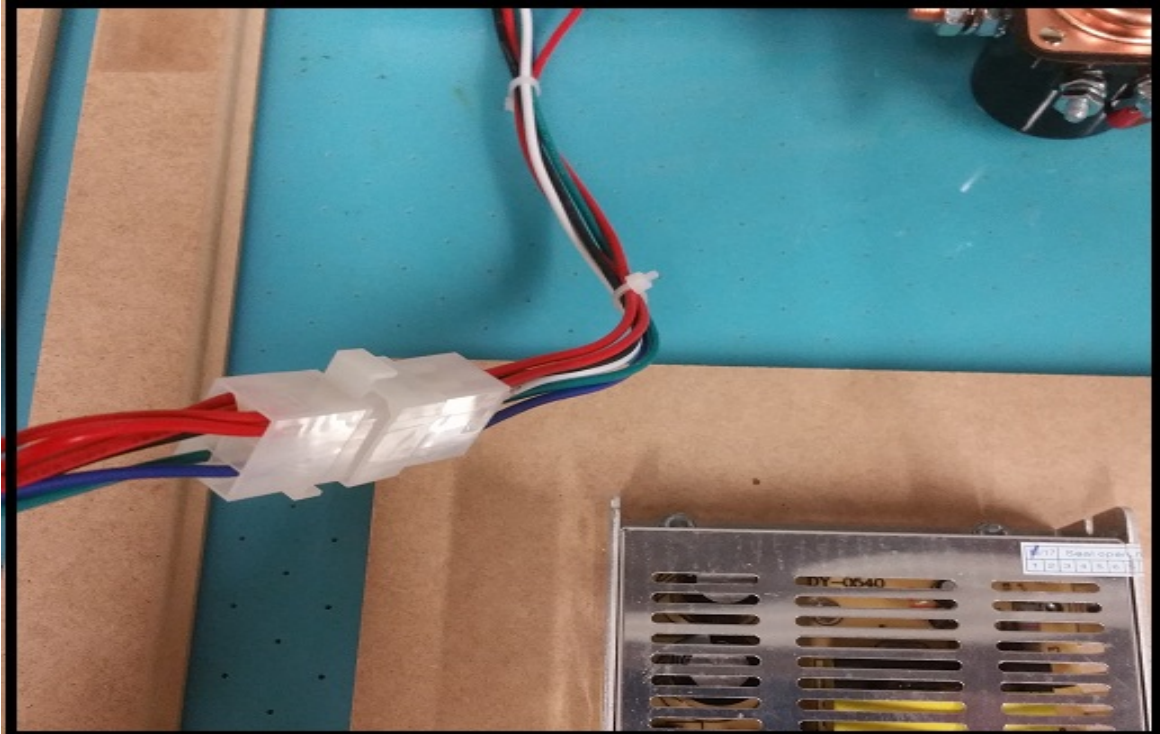## LIGHTBAR/STROBES CONNECTION

Mount the lightbar in the desired location and connect the ribbon and power cables to the Resistor Board as shown below.
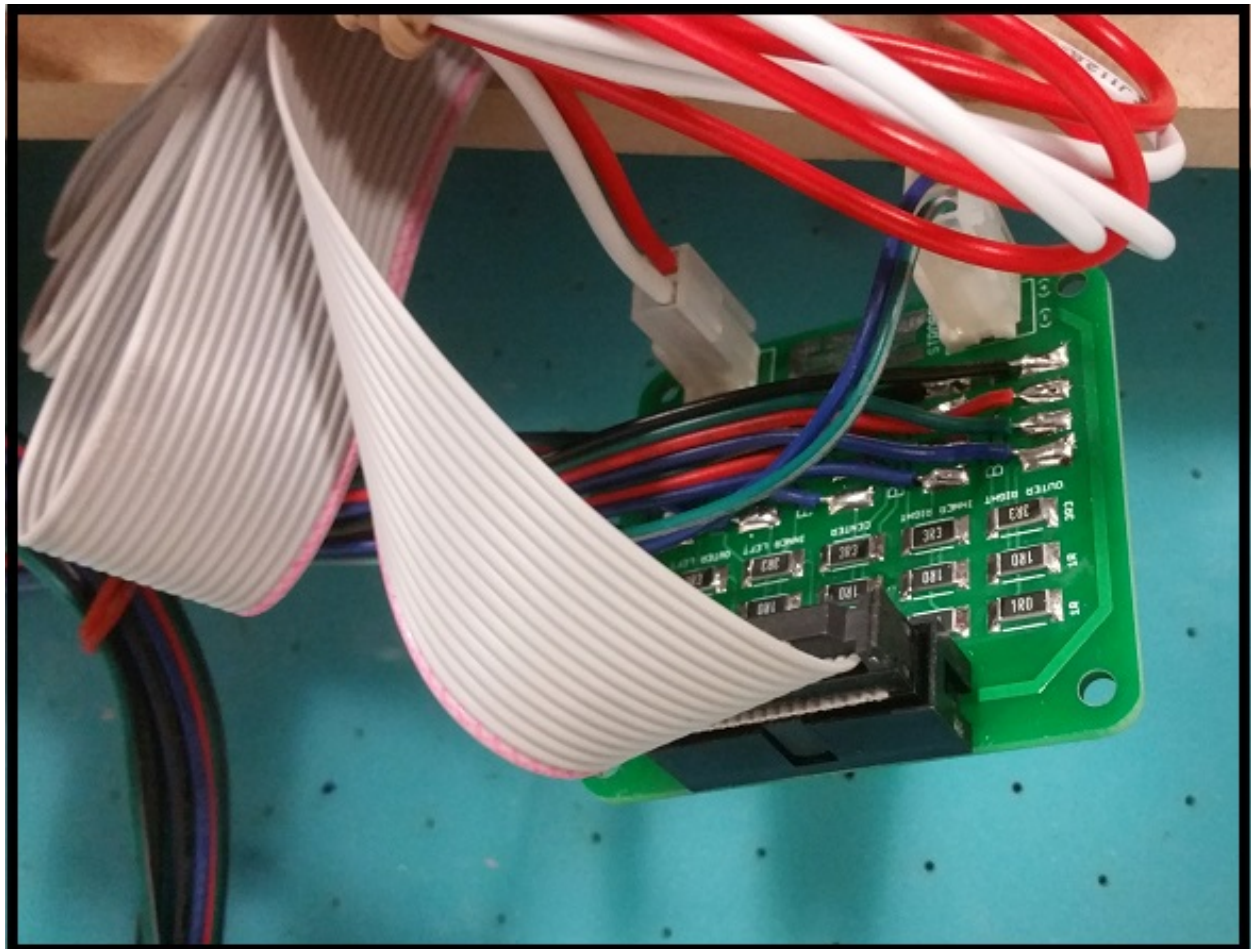
Solenoid Bar Connections

Ensure that the 6 pin connector at the left of the bar is connected to the left panel as previously described…..

… and connect the 8 pin connector at the right side to the booster board as shown below.
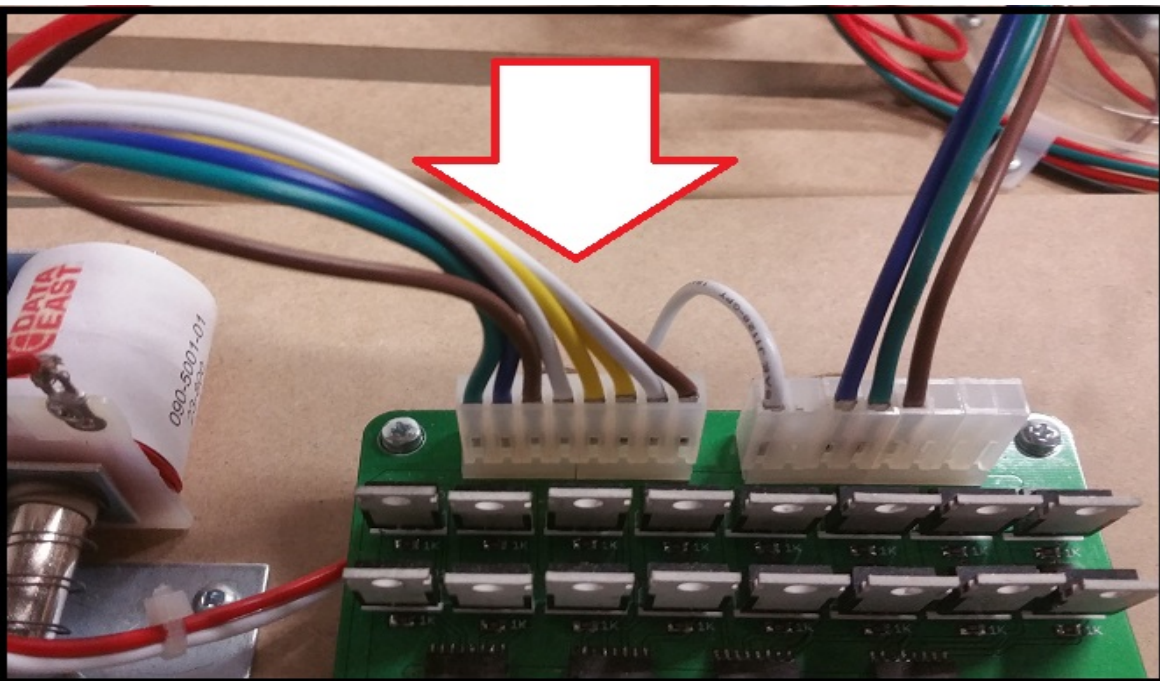
From Left to Right the pinout for the Solenoid Bar and Right Panel connectors is as follows:

Solenoid Bar connector (left to right):
- Left Flipper
- Left Sling
- Middle Bumper Left
- Middle Bumper Center
- Middle Bumper Right
- Back Bumper Left
- Back Bumper Center
- Back Bumper Right

Right Panel connector (left to right):
- Replay Knocker
- open
- Right Sling
- Right Flipper
- Shaker Motor
- open
- open
- open
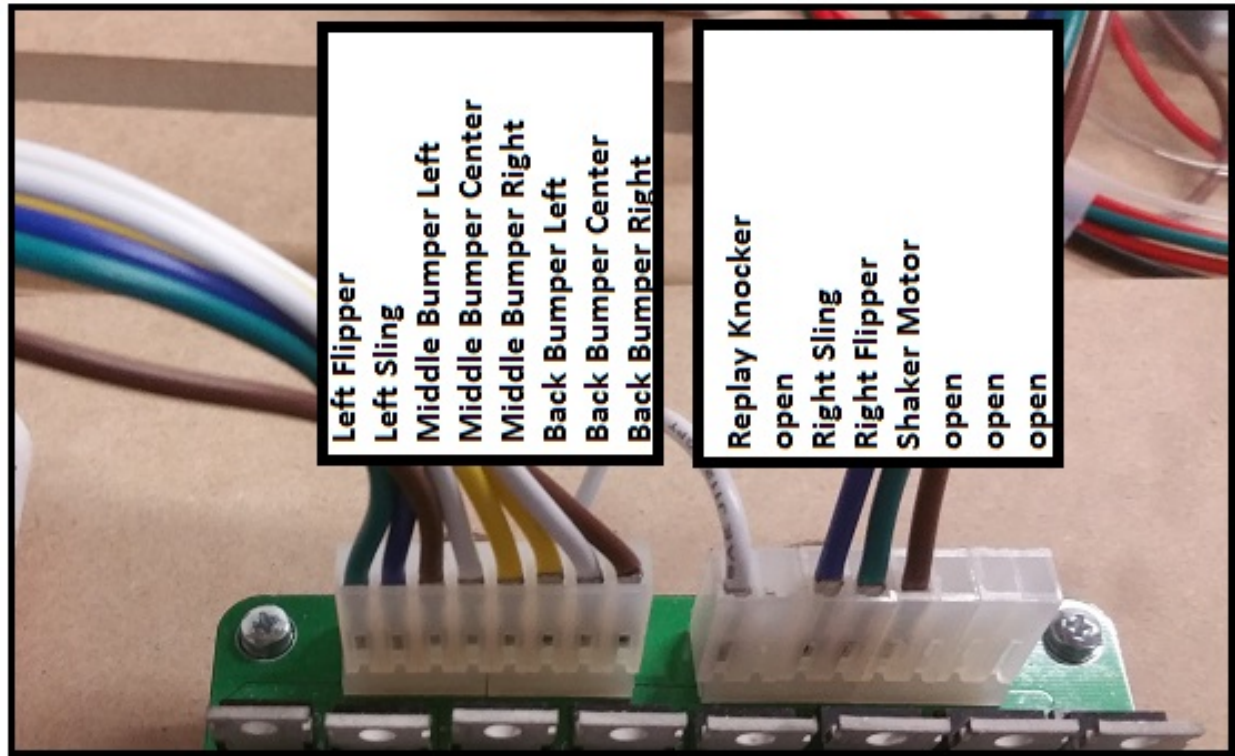
USB Cable Connection

Connect the USB cable from the PacLED64 (shown below) to a free USB port in your computer.

Adjustments

Speed Control

The shaker motor speed can be adjusted by turning the trim pot located on the speed control board at the front of the right panel.
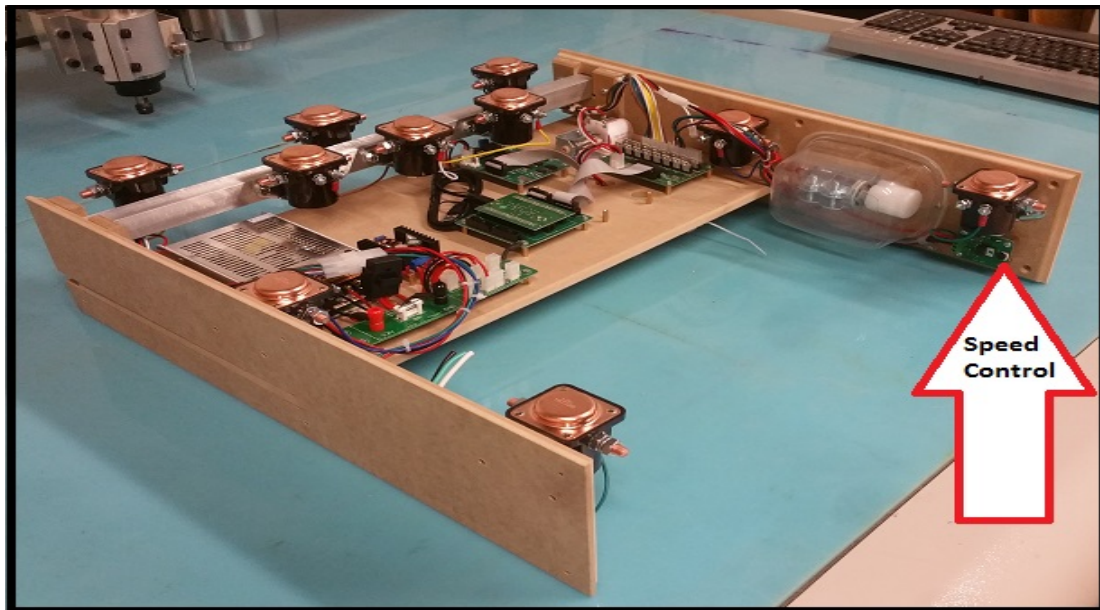
Night Mode

A night mode switch has been installed which will allow you to turn off the booster board controlling the solenoids, shaker motor and replay knocker. Enough cable has been provided to allow for remote mounting of the switch to a convenient location.

To activate night mode simply flip the switch to the off position. Switching it to the on position will re-enable the solenoids.
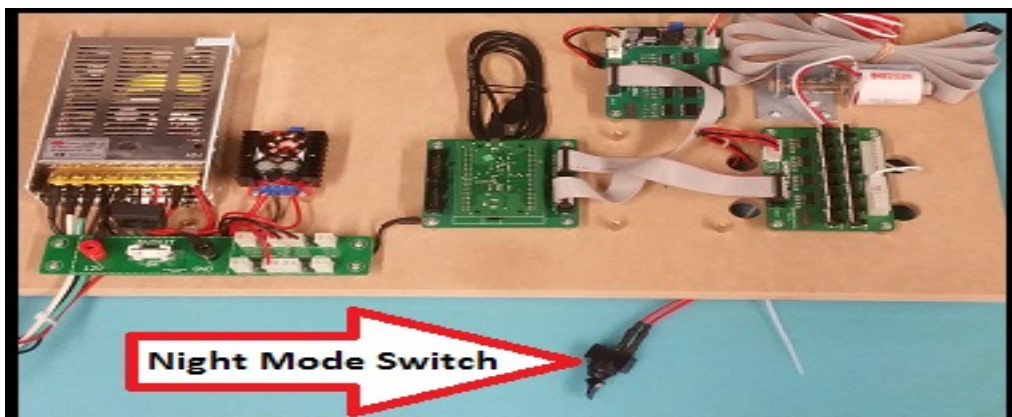
Software Setup

Pacled64 units ship from Ultimarc with a default demonstration (attract) pattern burned into the firmware. Since this pattern uses pwm across all of the outputs and solenoids (particularly the replay knocker) don't play nicely with pwm (it causes a huge draw in power) this pattern needs to be turned off.

To turn off the demo pattern you will need to download the pacled64 utility from here ….

https://www.ultimarc.com/PacLED64.exe

Install the utility in Administrator mode and run it. You will be presented with this screen …
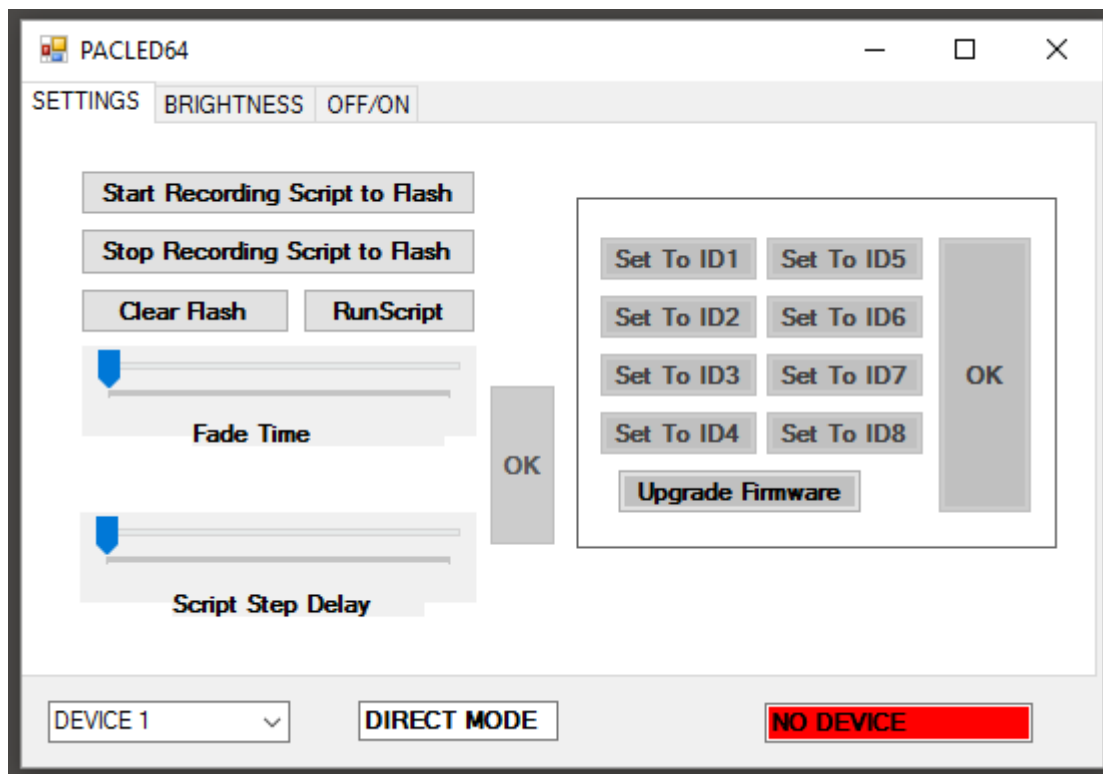
(hopefully yours shows a green bar and Device1 present. I had no pacled connected at the time)

Click on the Brightness tab and you will come this screen ….
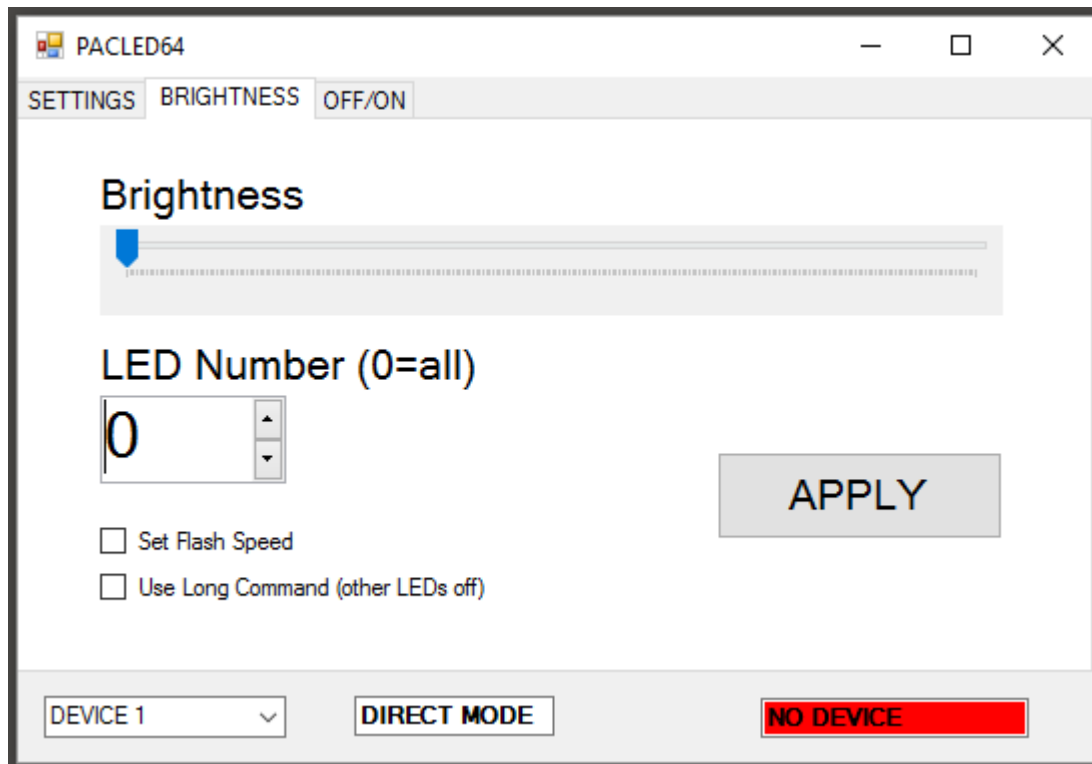
Set the slider all the way to the left to turn down the brightness and set the LED number to 0.

This effectively turns off all outputs during the demo pattern.

Return to the 1st screen and click the Start Recording to Flash button. After about 20 seconds or so click on the stop recording to flash button. Click on the OK button and exit the utility.

BEFORE turning on the NIGHT MODE SWITCH for the 1st turn on the kit and ensure that the lightbar is not running a pattern, if it is, rerun the above steps. Zebsboards is not responsible for damage caused by adverse side effects of controllers and or software setup.

DOF Configuration

Port 1	Flipper Left	Port 17	5 Flasher Outside Left	Port 33		Port 49	
Port 2	Slingshot Left	Port 18		Port 34		Port 50	
Port 3	10 Bumper Middle Left	Port 19		Port 35		Port 51	
Port 4	10 Bumper Middle Center	Port 20	5 Flasher Left	Port 36		Port 52	
Port 5	10 Bumper Middle Right	Port 21		Port 37		Port 53	
Port 6	10 Bumper Back Left	Port 22		Port 38		Port 54	
Port 7	10 Bumper Back Center	Port 23	5 Flasher Center	Port 39		Port 55	
Port 8	10 Bumper Back Right	Port 24		Port 40		Port 56	
Port 9	Knocker	Port 25		Port 41		Port 57	
Port 10		Port 26	5 Flasher Right	Port 42		Port 58	
Port 11	Slingshot Right	Port 27		Port 43		Port 59	
Port 12	Flipper Right	Port 28		Port 44		Port 60	
Port 13	Shaker	Port 29	5 Flasher Outside Right	Port 45		Port 61	
Port 14		Port 30		Port 46		Port 62	
Port 15		Port 31		Port 47		Port 63	
Port 16		Port 32	Strobe	Port 48		Port 64	

**Standard Kit Settings

DOF CONFIG TOOL
BY

| Home | Port Assignments | Table Configs | Version History | My Account | Stats | Combine Toys | Logout |

Device: PacLed 1 - directoutputconfigini20 ▼

Save Config   Generate Config   Clear Fields

Shaker Motor
Min Intensity: 48 ▼   Max Intensity: 48 ▼

Fan
Min Intensity: 48 ▼   Max Intensity: 48 ▼

Custom Brightness
Strobe 48 ▼   PF Strobe MX FF ▼   Flasher FF ▼   Ledstrip Flasher FF ▼

Contactor variables
Set Intensity and Duration to 0 if you don't want feedback to these events

Targets   **Drop Targets**
Duration: 60 ▼   Intensity: 48 ▼   Duration: 60 ▼   Intensity: 48 ▼

Ledstrip variables   Revert Default   Check here for explanation of the positioning parameters

		AH		AL		AT		AW		SHP		Color			
Strobe MX Left		30 ▼		0		0 ▼		9 ▼		White		Color		SHP	Circle3 ▼
Strobe MX Right		30 ▼		91		0 ▼		9 ▼		White		Color		SHP	Circle3 ▼
Flasher MX Left Out		100 ▼		0		0 ▼		19 ▼		Circle3 ▼		SHP			
Flasher MX Left		100 ▼		20		0 ▼		19 ▼		Circle3 ▼		SHP			
Flasher MX Center		100 ▼		40		0 ▼		19 ▼		Circle3 ▼		SHP			
Flasher MX Right		100 ▼		60		0 ▼		19 ▼		Circle3 ▼		SHP			
Flasher MX Right Out		100 ▼		80		0 ▼		19 ▼		Circle3 ▼		SHP			
Flasher MX Character Left Out		100 ▼		0		0 ▼		14 ▼		Circle3 ▼		SHP			
Flasher MX															

Port assignments:

Port 1	Flipper Left ▼	Port 17	5 Flasher Outside Left ▼	Port 33 ▼	Port 49 ▼
Port 2	Slingshot Left ▼	Port 18	▼	Port 34 ▼	Port 50 ▼
Port 3	10 Bumper Middle Left ▼	Port 19	▼	Port 35 ▼	Port 51 ▼
Port 4	10 Bumper Middle Center ▼	Port 20	5 Flasher Left ▼	Port 36 ▼	Port 52 ▼
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Port 14	▼	Port 30	▼	Port 46 ▼	Port 62 ▼
Port 15	▼	Port 31	▼	Port 47 ▼	Port 63 ▼
Port 16	▼	Port 32	Strobe ▼	Port 48 ▼	Port 64 ▼