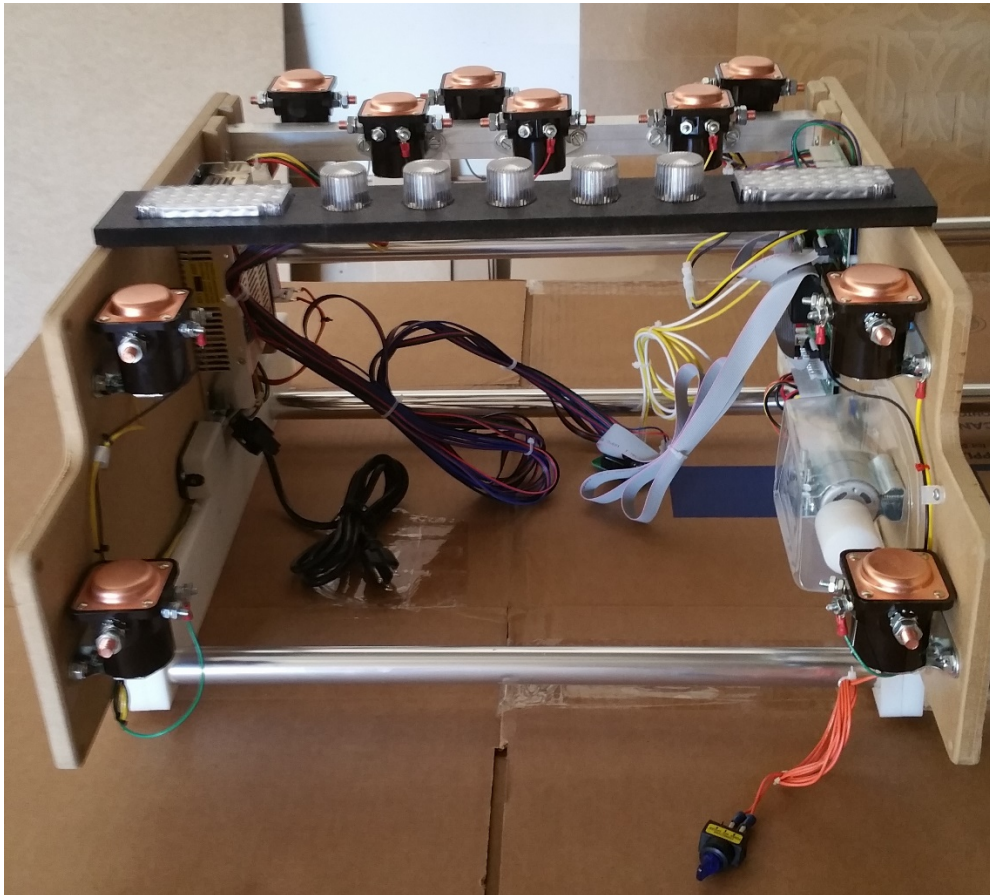


ZEBSSBOARDS.COM

EZINSTALL Kit Instructions



Thank you for purchasing your EZInstall kit from zebssboards.com.

Before installing, please inspect the kit for any defects and read the instructions completely.

Do not connect the AC power cord until all connections have been made and double checked for proper installation!!

AC power can kill. Please observe the standard precautions when installing and using any AC power appliance.

Kit Contents

EZInstall Basic Kit

Left Panel Assembly – 2 solenoids, replay knocker assembly, 12V 20A DC power supply, 20A AC circuit breaker/power cord assembly, 12V 10A fused power booster module

Right Panel Assembly – 2 solenoids, shaker motor/controller assembly, 12V 8A fused power distribution board, high power 16 output Barebones Booster Board, PacLED64/breakout board assembly, night mode/quiet mode switch assembly

Solenoid Bar – 6 solenoids, power harness, aluminum mounting bar

EZInstall Standard Kit

Left Panel Assembly – 2 solenoids, replay knocker assembly, 12V 20A DC power supply, 20A AC circuit breaker/power cord assembly, 12V 10A fused power booster module

Right Panel Assembly – 2 solenoids, shaker motor/controller assembly, 12V 8A fused power distribution board, high power 16 output Barebones Booster Board, PacLED64/breakout board assembly, night mode/quiet mode switch assembly

Solenoid Bar – 6 solenoids, power harness, aluminum mounting bar

Light Bar w/Strobes – 5pcs 350ma RGB LEDs, 2pcs white LED strobe panels, plastic lens caps, mounting bar, harness, resistor board, 3' (1m) ribbon cable and power cable

EZInstall Deluxe Kit

Left Panel Assembly – 2 solenoids, replay knocker assembly, 12V 20A DC power supply, 20A AC circuit breaker/power cord assembly, 12V 10A fused power booster module, 2 high power Barebones Booster Boards

Right Panel Assembly – 2 solenoids, shaker motor/controller assembly, 12V 8A fused power distribution board, high power 16 output Barebones Booster Board, PacLED64/breakout board assembly, night mode/quiet mode switch assembly

Solenoid Bar – 6 solenoids, power harness, aluminum mounting bar

Light Bar w/Strobes – 5pcs 350ma RGB LEDs, 2pcs white LED strobe panels, plastic lens caps, mounting bar, harness, resistor board, 3' (1m) ribbon cable and power cable

12V RGB undercab light strips and harness, Start, Extra Ball, Launch button switch assemblies

Note – In all kits the solenoid bar and solenoid bodies/caps are live with 12VDC when unit is powered up!!

Part 1: Assembly Instructions

Step 1

Ensure that the 12VDC power supply is properly switched to the AC voltage for your location. The switch is located on the left hand side of the power supply and can be operated by gently sliding the switch to the proper voltage as shown on the label affixed to the power supply unit.



Step 2

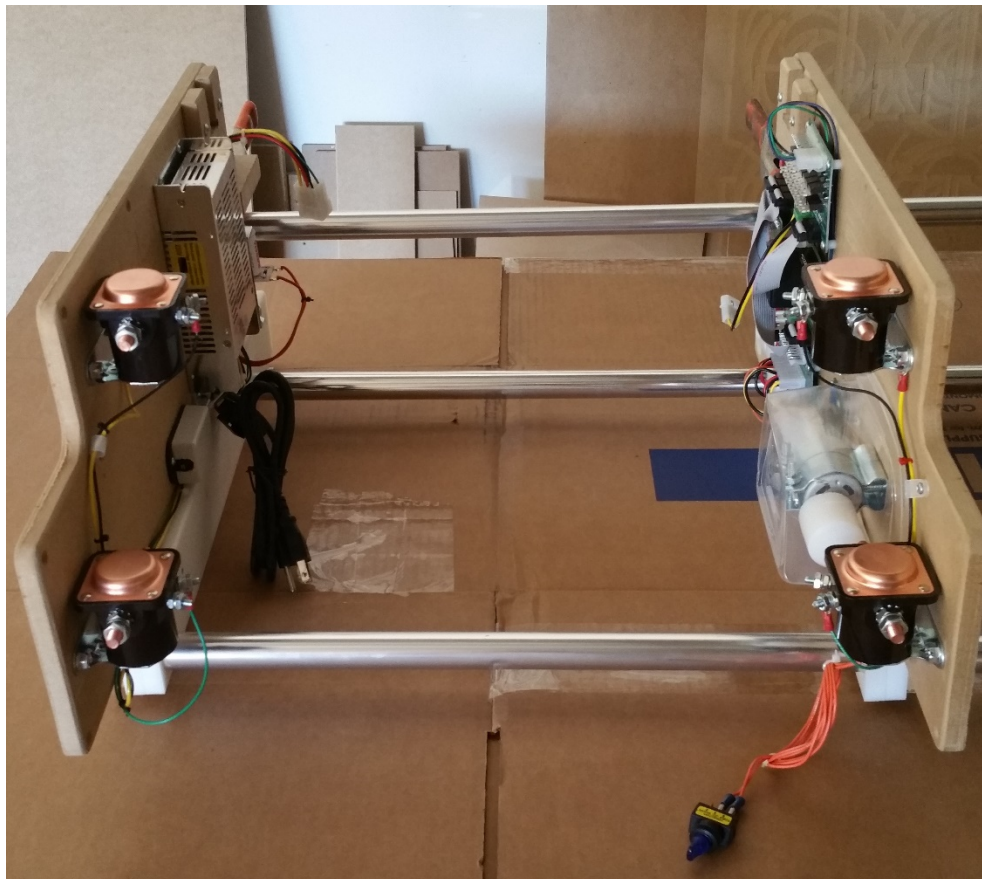
Determine the best mounting location inside your cabinet for the left and right panels. Panels should be located as close to the front of the cabinet as possible for the best effect and should have a clearance of 2" - 3" (25mm – 50mm) from the top of the panel to the underside of the playfield television where at all possible.

Note – In all kits the solenoid bar and solenoid bodies/caps are live with 12VDC when unit is powered up!! Please leave adequate clearance from all metal and electronic parts in your cabinet to avoid short circuits.

The panels should be parallel to each other both vertically and horizontally to keep the solenoid bar secure and level in the mounting pockets.

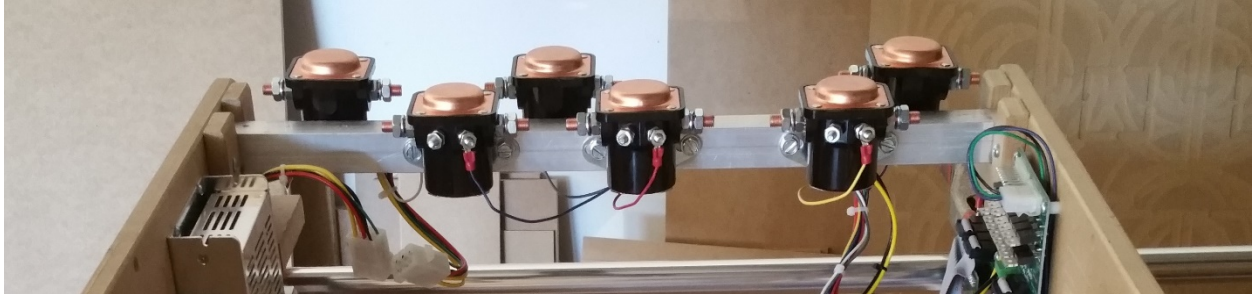
Measure the distance between the solenoid mounting pockets to ensure that the solenoid bar will fit easily between the panels. If necessary, the bar can be carefully trimmed/filed to ensure a proper fit.

When the best location has been found, mount the left and right panels in position using 1" (25mm) mounting screws. Using longer screws may penetrate completely through your cabinet side. (Shown below on test jig).



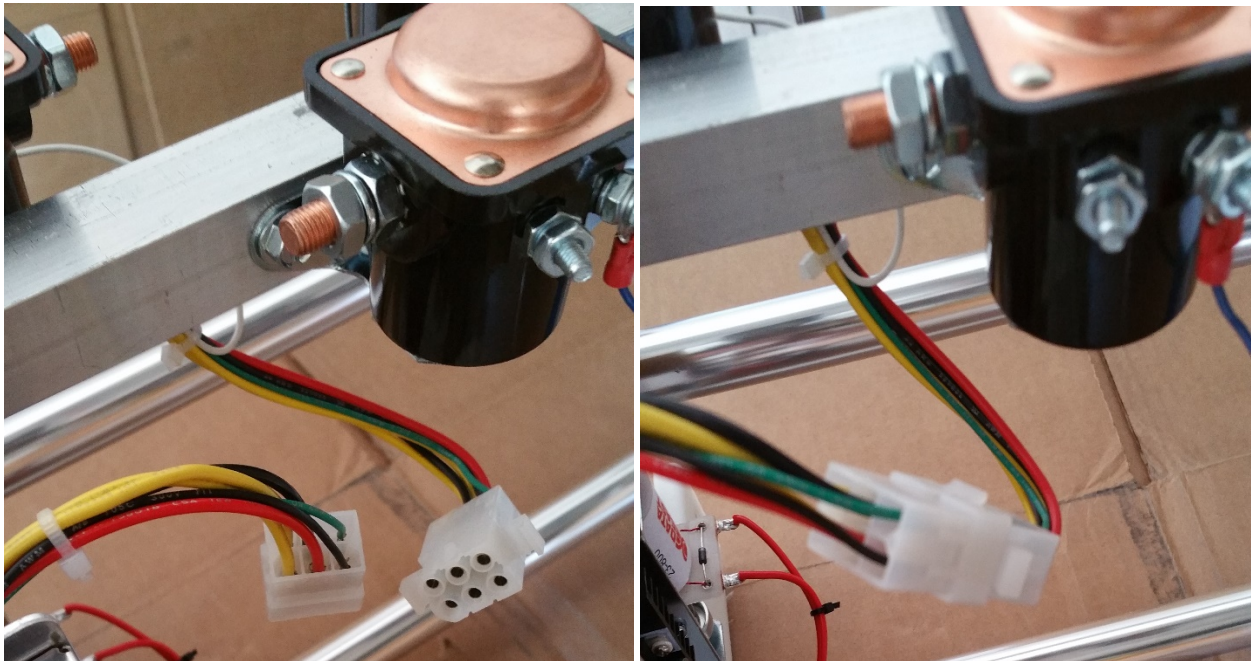
Step 3

Insert the solenoid bar into mounting pockets as shown below.



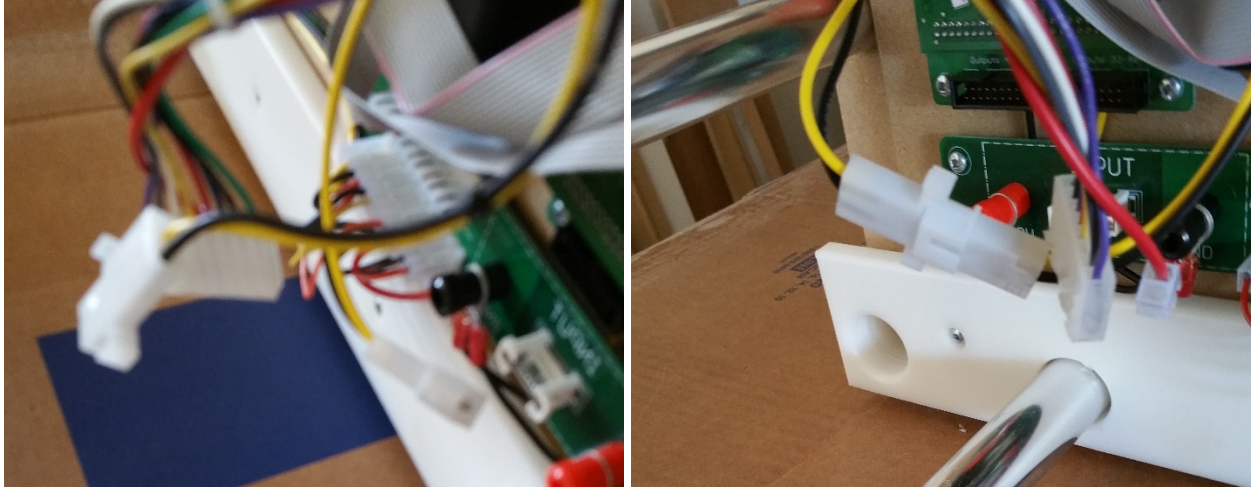
Step 4

Connect the 6 pin molex harness on the left side as shown below.



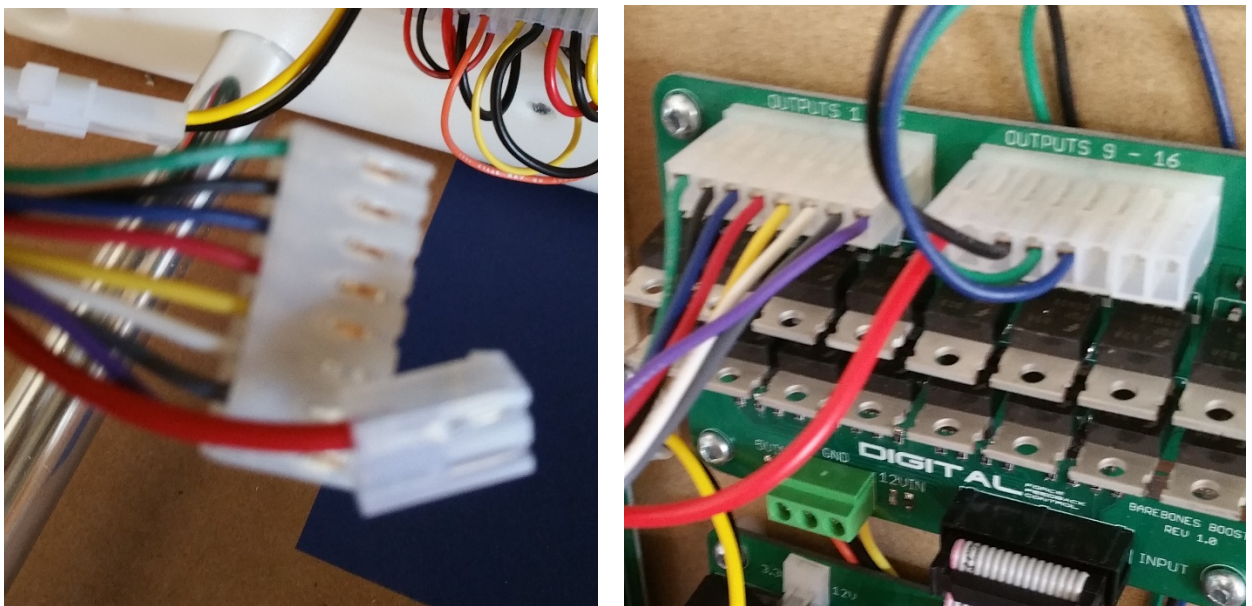
Step 5

Connect the 2 pin molex harness (black/yellow) on the right side as shown below.



Step 6

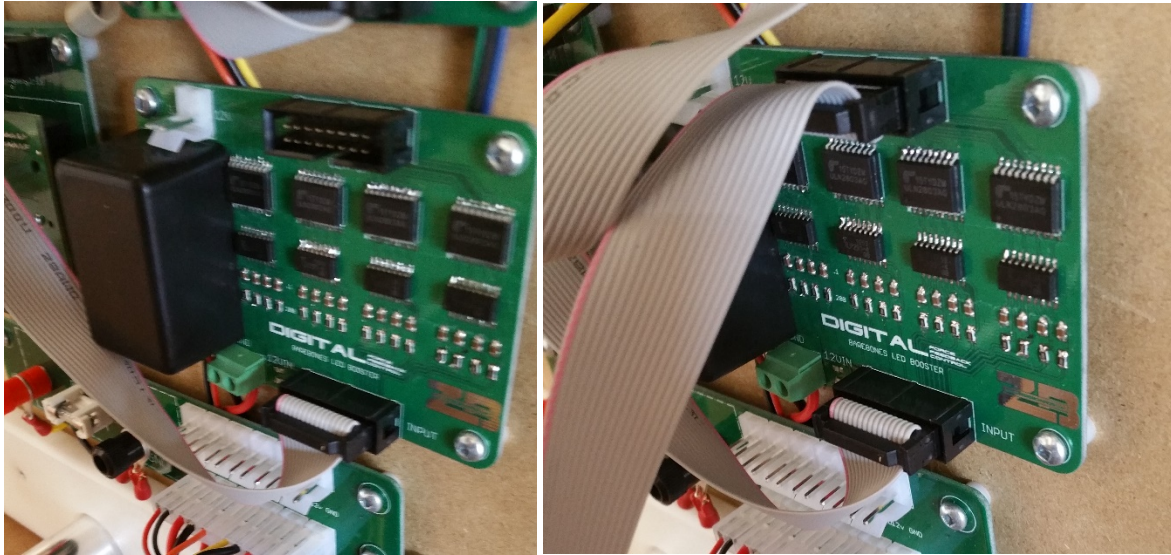
Connect the 8 pin and 2 pin molex connectors to the high power booster board as shown. Ensure that the latch ramps on the harnesses align with the latch ramps on the output board connectors.



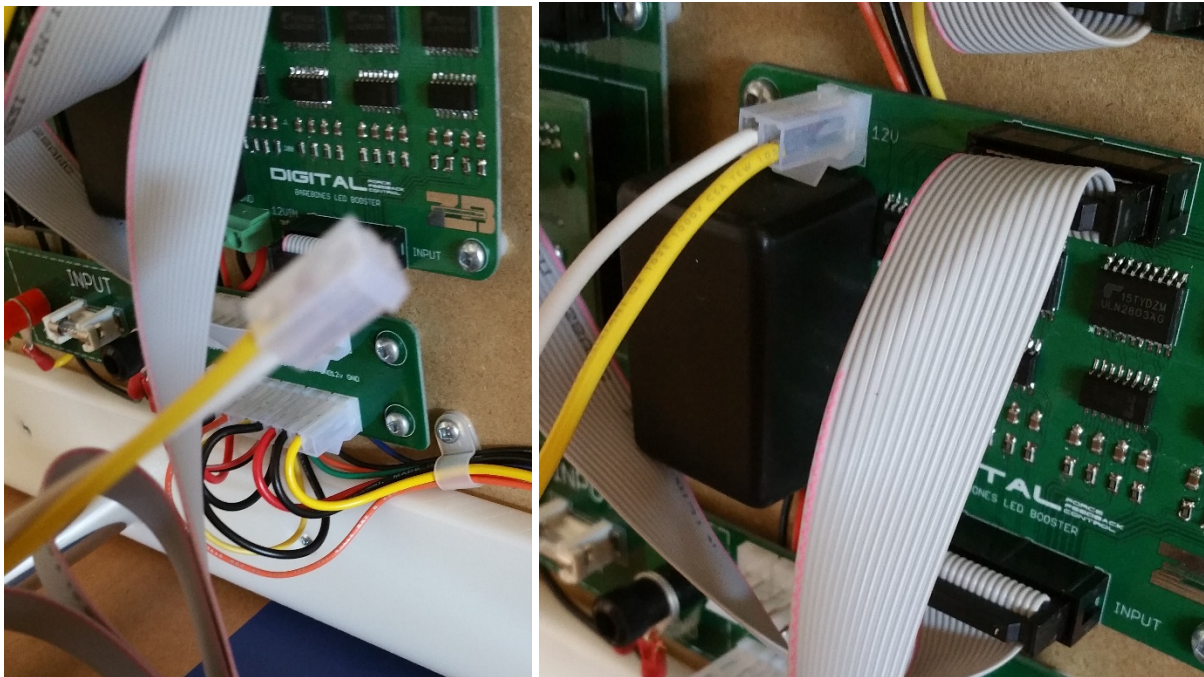
Step 7

Mount The light bar in a suitable location and connect as shown below.

Attaching the ribbon connector to the light bar output board.....

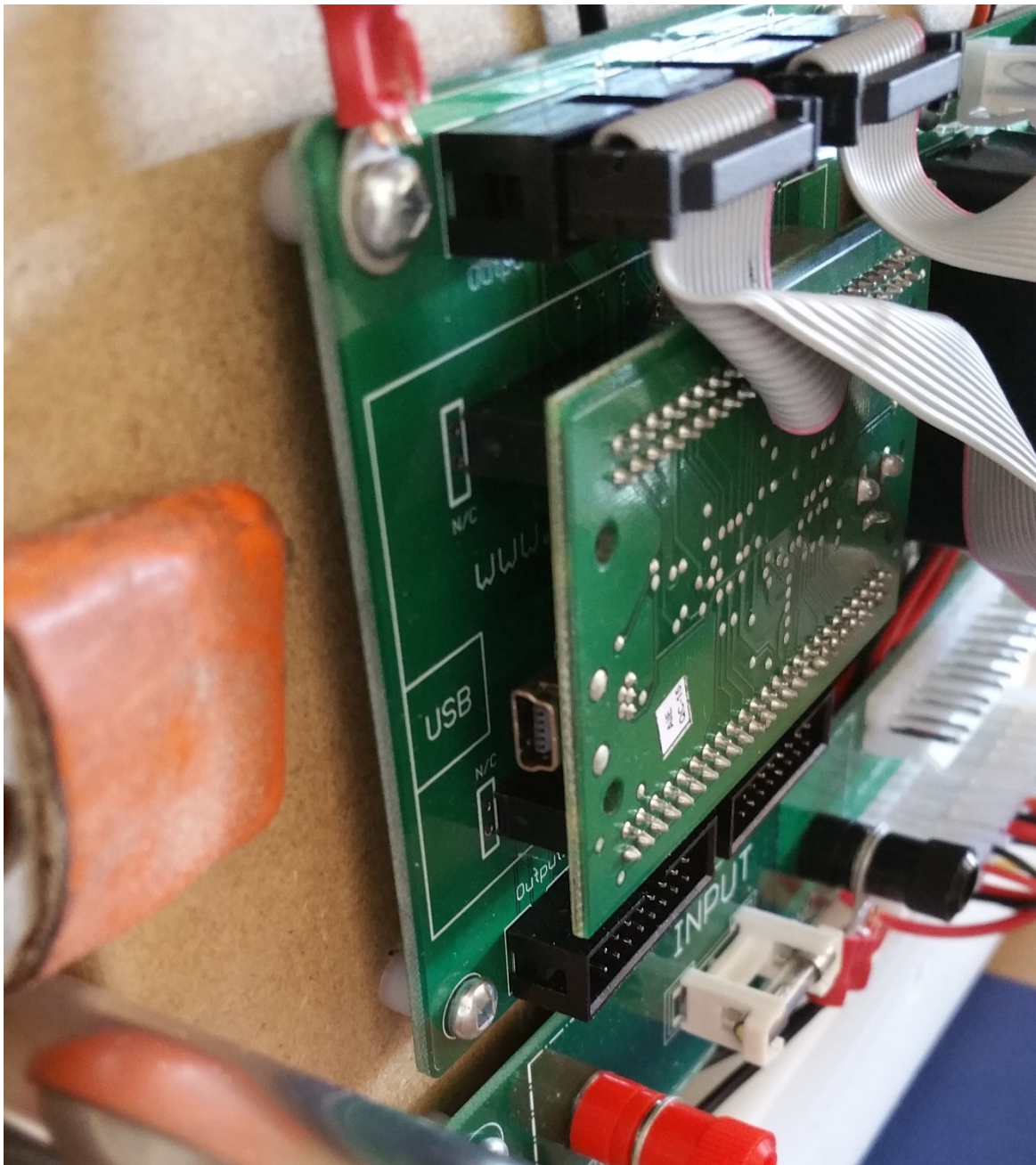


Attaching the lightbar power harness to the output board.....



Step 8

Attach the USB cable to the PacLED64 USB connector located at the back of the right panel and connect the cable to the computer USB port.



Part 2: Setup Instructions:

If you haven't already,

Download and Install the B2S Backglass Server as described here ...

<http://vpuniverse.com/forums/forums/topic/313-b2s-backglass-server-installation-and-version-info/>

Download and install the Direct Output Framework as described here ...

<http://vpuniverse.com/forums/forums/topic/1468-directoutput-framework-r2/>

DOF configuration files are included with the kit but it is highly recommended that you create your own account and configuration in the DOFConfig Tool to keep current on the latest additions to the feedback options, tables and settings.

DOF Configuration

Navigate to www.vpuniverse.com, login and navigate to [here](#).

Select "Create Account" and set the parameters to....



The screenshot shows the DOF CONFIG TOOL web interface. The header features the logo "DOF CONFIG TOOL" in red and blue, with a small "BYE" logo and "Current Version: 2193" on the right. Below the header is a navigation menu with links: Home, Port Assignments, Table Configs, Version History, My Account, Stats, Combine Toys, and Logout. The main content area is titled "Account Settings" and contains the following configuration options:

| | |
|--------------------------------|---|
| My API Key | WumfIIsUyW7U09XrFbW |
| Config Contributions | 0 |
| Number of Ledwiz Devices | 0 |
| Number of PacDrive Devices | 0 |
| Number of WS2811 Devices | 0 |
| Number of Artnet Devices | 0 |
| Number of PacLED Devices | 1 |
| Number of SainSmart Devices | 0 |
| Number of Pinscape Devices | 0 |
| Number of FRDM-KL25Z Devices | 0 |
| RGB Color Brightness | Put a value near 00 to see a difference of brightness |
| Flashers | FF |
| Ledstrips | FF |
| Generate nofeedback files | No |
| Remove fade from Front Buttons | Yes |
| Ledwiz Framework | DirectOutput |

Number of PacLED Devices = 1

LEDWiz Framework = DirectOutput

All other settings can be left to the default settings.

Select "Port Assignments" and set the parameters to.....

EZInstall Basic Kit Settings.....

DOF

CONFIG
TOOL

Current Version: 2193

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

Device: PacLed 1 - directoutputconfigini20

Save Config
Generate Config
Clear Fields

| | | | | |
|---------|-------------------------|---------|---------|---------|
| Port 1 | Flipper Left | Port 17 | 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 | 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 | 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 | 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 | Port 45 | Port 61 |
| Port 14 | Start Button | Port 30 | Port 46 | Port 62 |
| Port 15 | | Port 31 | Port 47 | Port 63 |
| Port 16 | | Port 32 | Port 48 | Port 64 |

Shaker Motor
Min Intensity: 48 Max Intensity: 48

Fan
Min Intensity: 48 Max Intensity: 48

Strobe Intensity 48

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

| Targets | | Drop Targets | |
|-----------|------------|--------------|------------|
| Duration: | Intensity: | Duration: | Intensity: |
| 60 | 48 | 60 | 48 |

Shape variables Revert Default

| | | | | | |
|----------------------|--------|-------|------|-------|-------------|
| Strobe MX Left | AH 30 | AL 0 | AT 0 | AW 9 | SHP Circle3 |
| Strobe MX Right | AH 30 | AL 91 | AT 0 | AW 9 | SHP Circle3 |
| Flasher MX Left Out | AH 100 | AL 0 | AT 0 | AW 19 | SHP Circle3 |
| Flasher MX Left | AH 100 | AL 20 | AT 0 | AW 19 | SHP Circle3 |
| Flasher MX Center | AH 100 | AL 40 | AT 0 | AW 19 | SHP Circle3 |
| Flasher MX Right | AH 100 | AL 60 | AT 0 | AW 19 | SHP Circle3 |
| Flasher MX Right Out | AH 100 | AL 80 | AT 0 | AW 19 | SHP Circle3 |

EZInstall Standard Kit Settings.....

DOF
CONFIG
TOOL

BY
Current Version: 2195

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

Device: Part ed 1 - directoutputconfig00

Save Config
Generate Config
Clear Fields

| | | | | | | | |
|---------|-------------------------|---------|-------------------------|---------|--|---------|--|
| Port 1 | Flipper Left | Port 17 | S 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 | S 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 | S Flasher Center | Port 39 | | Port 55 | |
| Port 8 | 10 Bumper Back Right | Port 24 | | Port 40 | | Port 56 | |
| Port 9 | Knockor | Port 25 | | Port 41 | | Port 57 | |
| Port 10 | | Port 26 | S 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 | S 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 | |

Shaker Motor
 Min Intensity: 48 Max Intensity: 48

Fan
 Min Intensity: 48 Max Intensity: 48

Custom Brightness
 Strobe 48 FF 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
 Duration: 60 Intensity: 48

Drop Targets
 Duration: 60 Intensity: 48

Ledstrip variables Revert Default

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

EZInstall Deluxe Kit Settings....

DOF
CONFIG
TOOL

Current Version: 2193

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

Device: PacLed 1 - directoutputconfigini20

Save Config
Generate Config
Clear Fields

| | | | | | | | |
|---------|-------------------------|---------|-------------------------|---------|----------------|---------|--|
| Port 1 | Flipper Left | Port 17 | 5 Flasher Outside Left | Port 33 | Start Button | Port 49 | |
| Port 2 | Slingshot Left | Port 18 | | Port 34 | Launch Button | Port 50 | |
| Port 3 | 10 Bumper Middle Left | Port 19 | | Port 35 | Extra Ball | Port 51 | |
| Port 4 | 10 Bumper Middle Center | Port 20 | 5 Flasher Left | Port 36 | ZB Launch Ball | 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 | Beacon | 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 | RGB Undercab | Port 30 | | Port 46 | | Port 62 | |
| Port 15 | | Port 31 | | Port 47 | | Port 63 | |
| Port 16 | | Port 32 | Strobe | Port 48 | | Port 64 | |

Shaker Motor
Min Intensity: 48 Max Intensity: 48

Fan
Min Intensity: 48 Max Intensity: 48

Strobe Intensity 48

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

| Targets | | Drop Targets | |
|-----------|------------|--------------|------------|
| Duration: | Intensity: | Duration: | Intensity: |
| 60 | 48 | 60 | 48 |

Shape variables Revert Default

| | | | | | |
|-------------------|-----|----|----|----|---------|
| Strobe MX Left | AH | AL | AT | AW | SHP |
| | 30 | 0 | 0 | 9 | Circle3 |
| Strobe MX Right | AH | AL | AT | AW | SHP |
| | 30 | 91 | 0 | 9 | Circle3 |
| Flasher MX Left | AH | AL | AT | AW | SHP |
| | 100 | 0 | 0 | 19 | Circle3 |
| Flasher MX Left | AH | AL | AT | AW | SHP |
| | 100 | 20 | 0 | 19 | Circle3 |
| Flasher MX Center | AH | AL | AT | AW | SHP |
| | 100 | 40 | 0 | 19 | Circle3 |
| Flasher MX Right | AH | AL | AT | AW | SHP |
| | 100 | 60 | 0 | 19 | Circle3 |
| Flasher MX Right | AH | AL | AT | AW | SHP |
| | 100 | 80 | 0 | 19 | Circle3 |