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Take your time, follow the instructions, relax, and enjoy yourself!

WARNINGS: Perform installation with your pinball machine turned off and unplugged from AC power.



PixlWav - LED Speaker Light Installation – Stern Spike-2 Dynamic Speaker Lights

Installation Video:

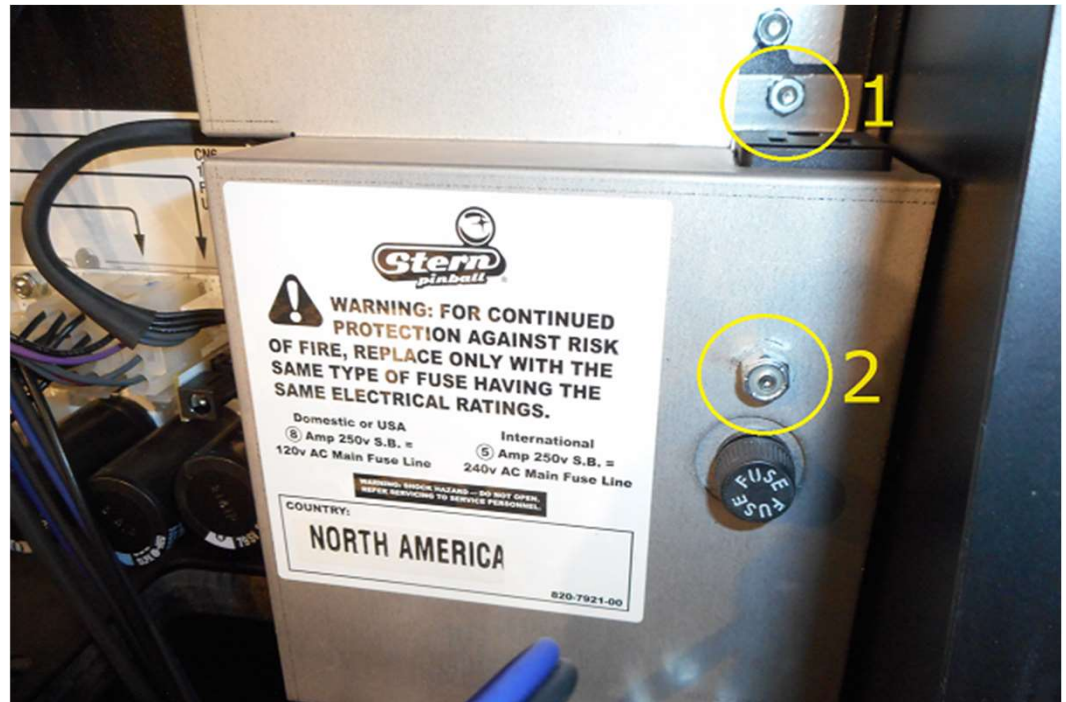
<https://www.youtube.com/watch?v=KHJRcwyHgvc>



If you have non-PW or non-PinWoofers speakers (such as the Kenwood KFC-1366), please review the addendum at the end of this document before starting.

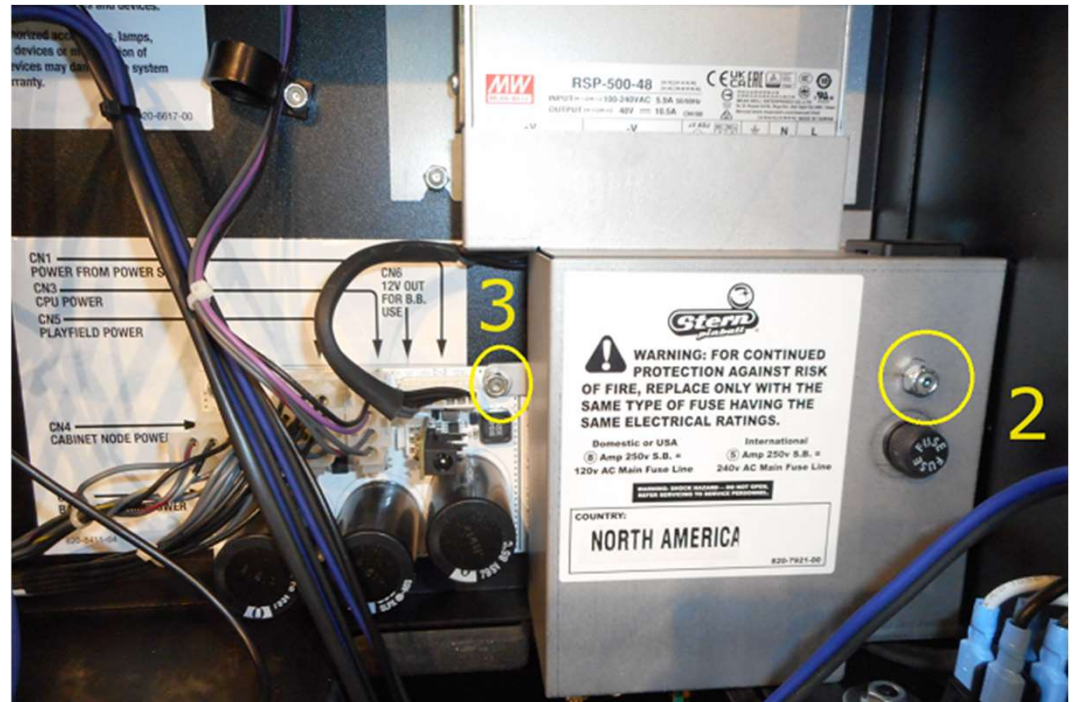
Power Box 1

- **Make certain that your machine is unplugged from AC Power.**
- Locate the power box cover found in the lower-right hand side of the backbox.
- Nut 1 does not need to be removed.
- Remove Nut 2.



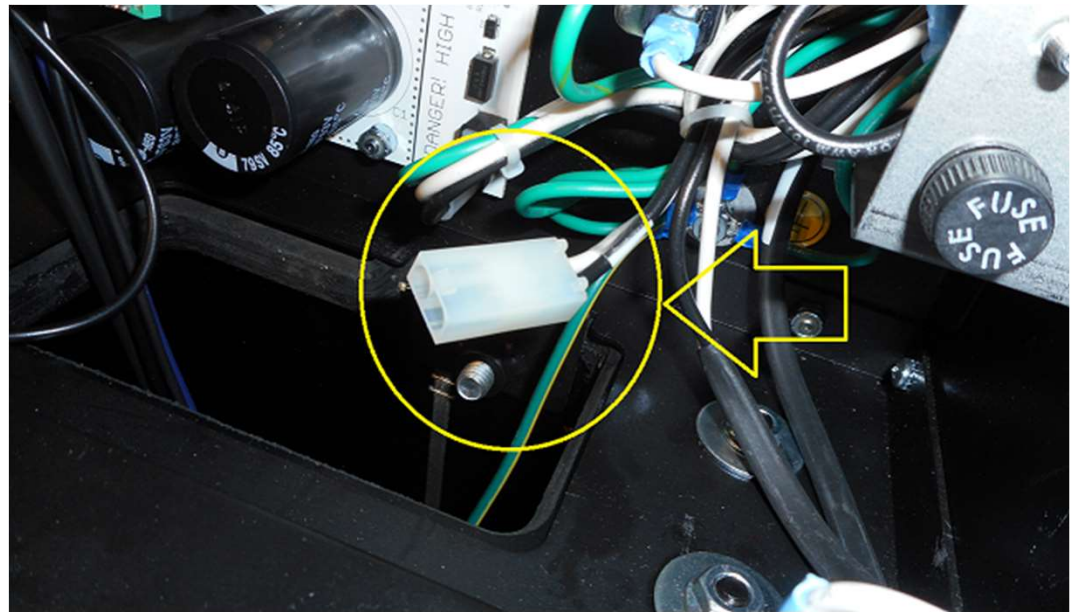
Power Box 2

- Remove Nut 3.



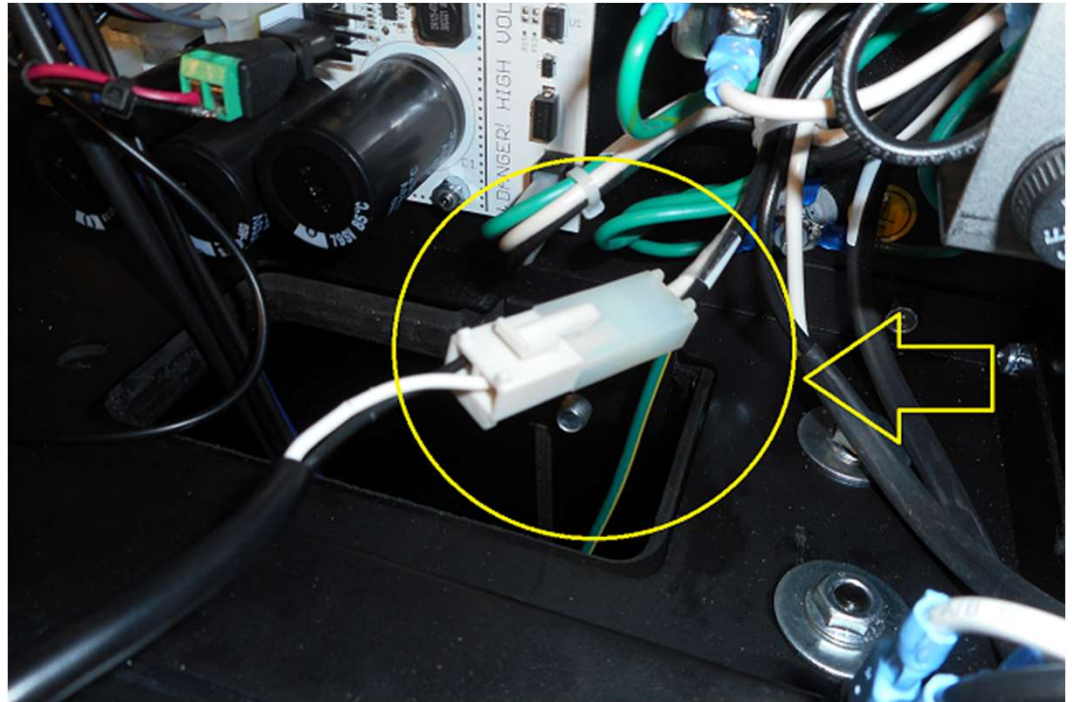
110 AC Connector (Bill Validator Power) - 1

- Remove the power box cover.
- Locate the 110 AC Bill Validator Power Connector shown in the yellow circle (United States Only).



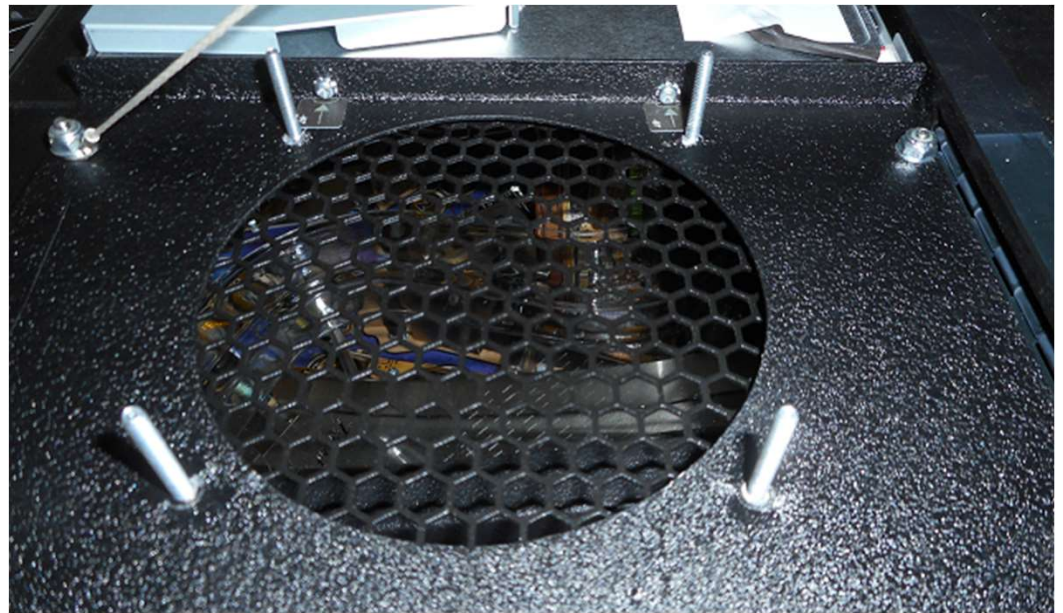
110 AC Connector (Bill Validator Power) - 2

- Plug the supplied 110V AC to 5V DC power adapter as shown.
- Re-install the power box cover at this time.



Mount Right Side - 1

- Remove everything that's currently attached to the right-hand side speaker plate as shown.
- You will have 4 exposed studs as pictured.



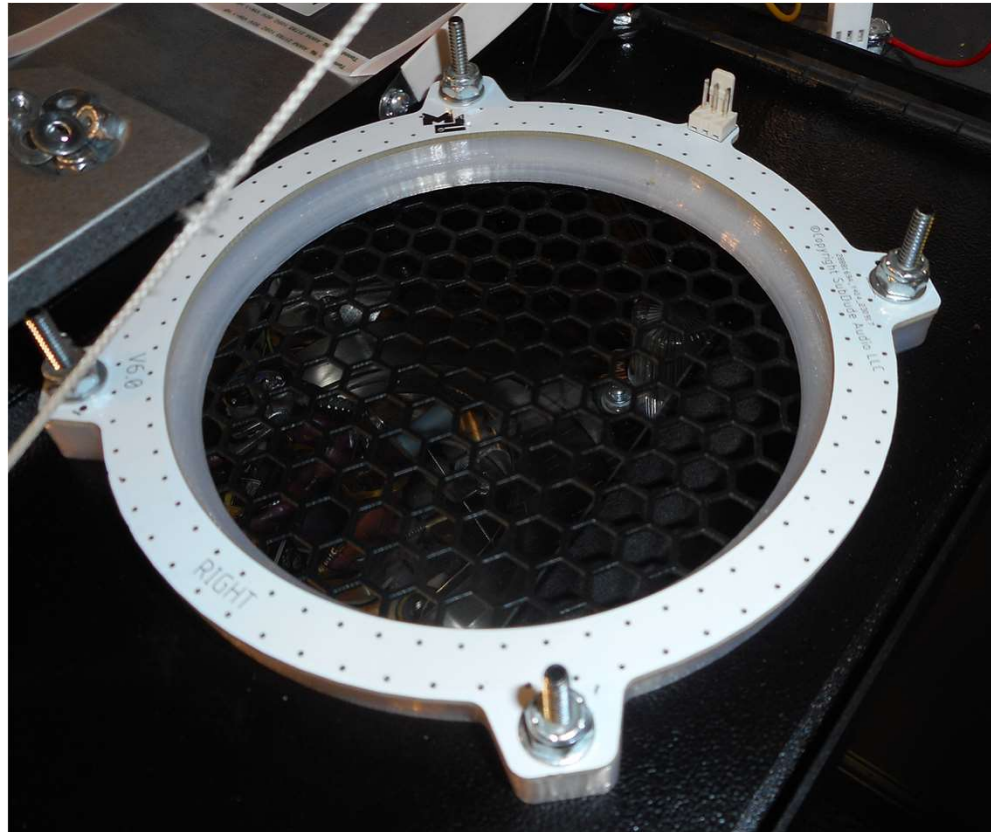
Mount Right Side - 2

- Place one of the two supplied mounting rings onto the studs as shown.



Mount Right Side - 3

- Place the LED PCB Ring labeled “RIGHT” as shown.
- The tab with the 3-pin electrical connector should rest at the bottom of the speaker plate when the speaker panel has been closed.
- Add flat washers and nuts to secure the PCB and mounting ring as shown.



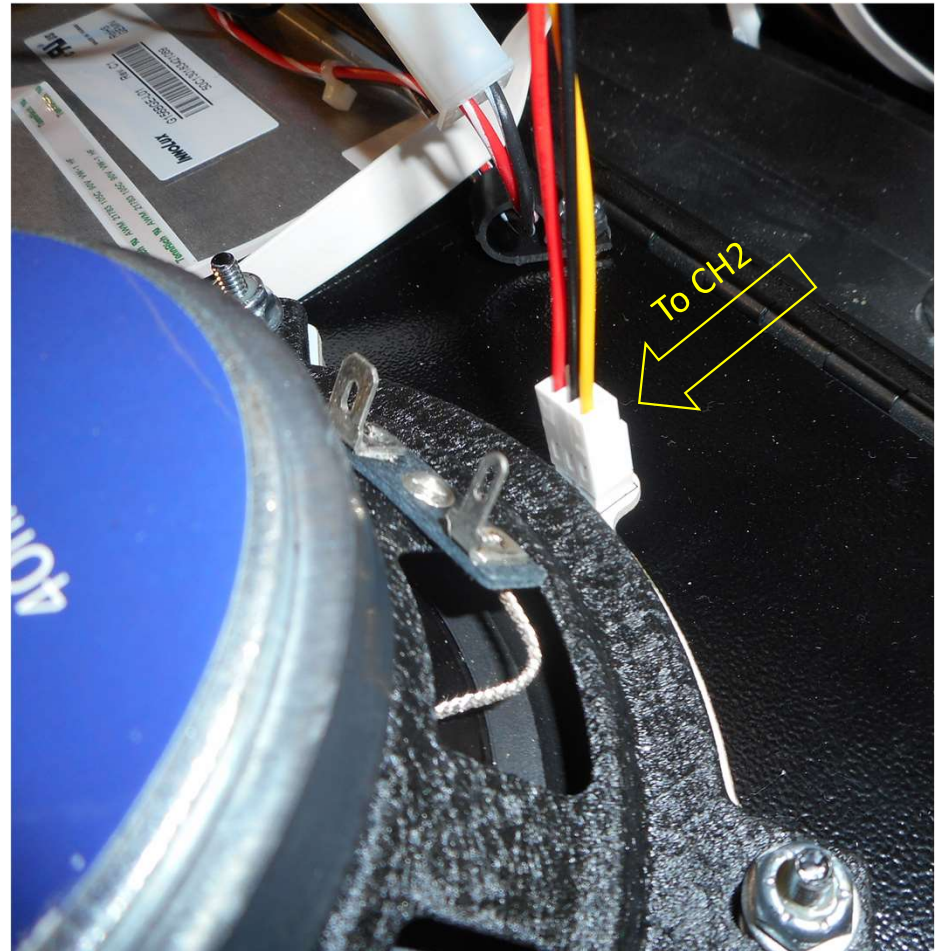
Mount Right Side - 4

- Secure the speaker with washers and nuts as shown.



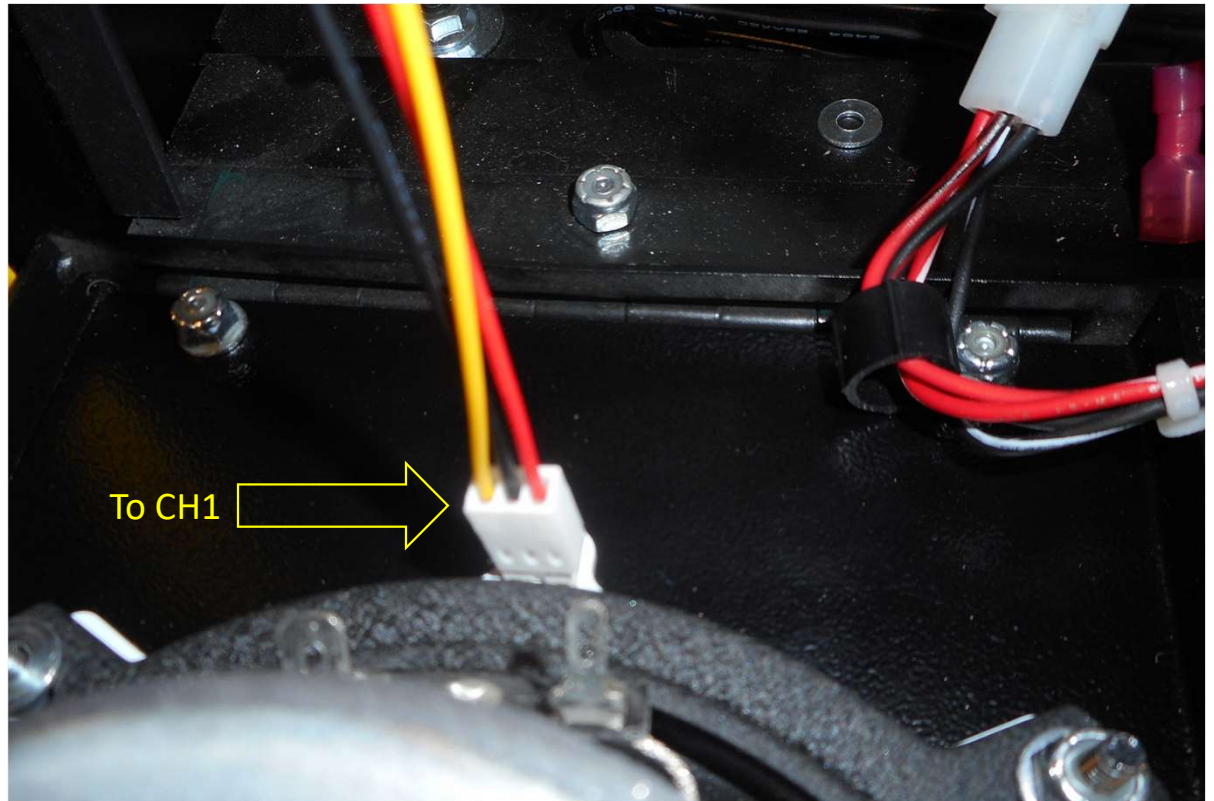
Mount Right Side - 5

- Attach one of the two supplied 3-wire connectors to the right-side PCB header as shown.
- Rest / position the other end of this wire connector near the center of the backbox for later connection to the hub CH2 header.
- All connections should have a “natural” fit. Each connector has raised fins that mate to the target header. DO NOT force these connections or you may damage the plastic retainer clips.



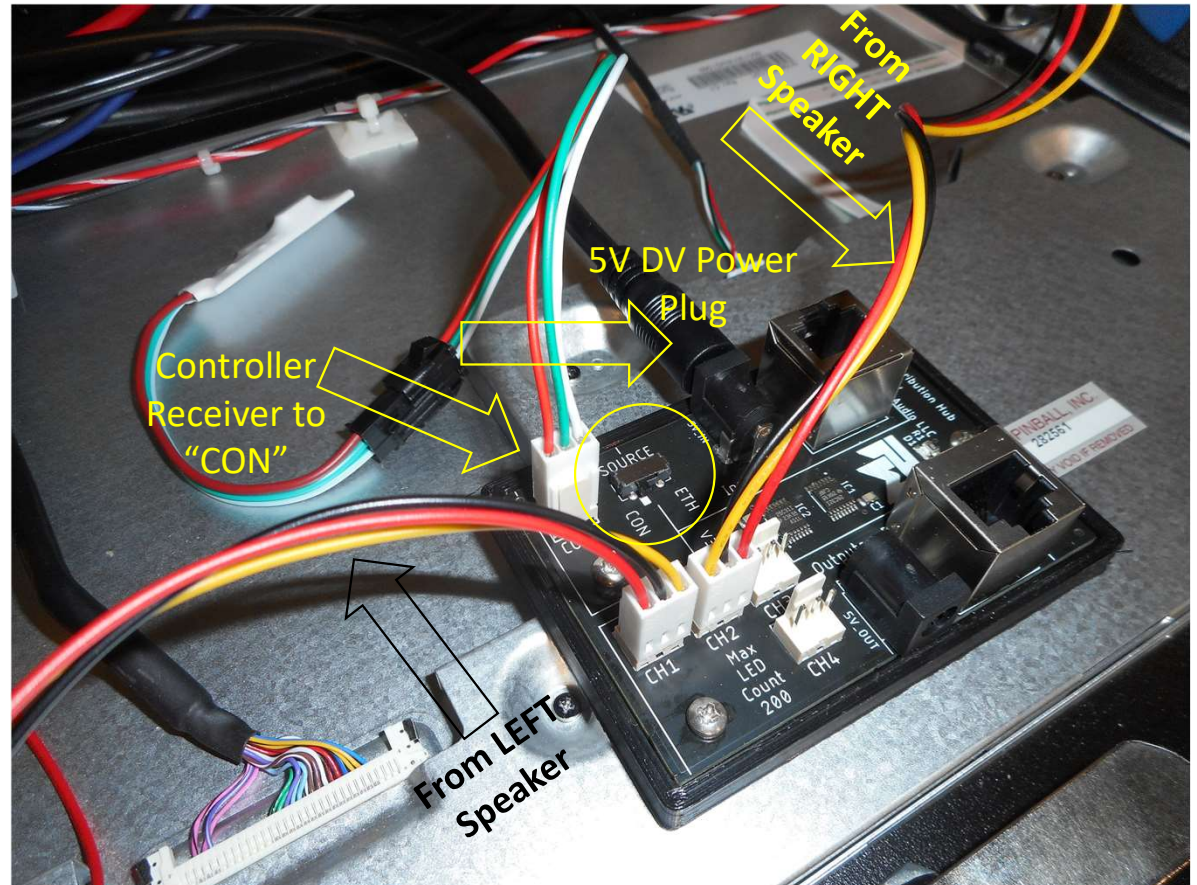
Mount Left Side

- Follow the same process to mount the left side.
- Note that the left-side LED PCB is labeled "LEFT".
- Otherwise, the process is the same.
- Attach one of the two supplied 3-wire connectors to the left-side PCB header as shown.
- Rest / position the other end of this wire connector near the center of the backbox for later connection to the hub CH1 header.
- All connections should have a "natural" fit. Each connector has raised fins that mate to the target header. DO NOT force these connections or you may damage the plastic retainer clips.



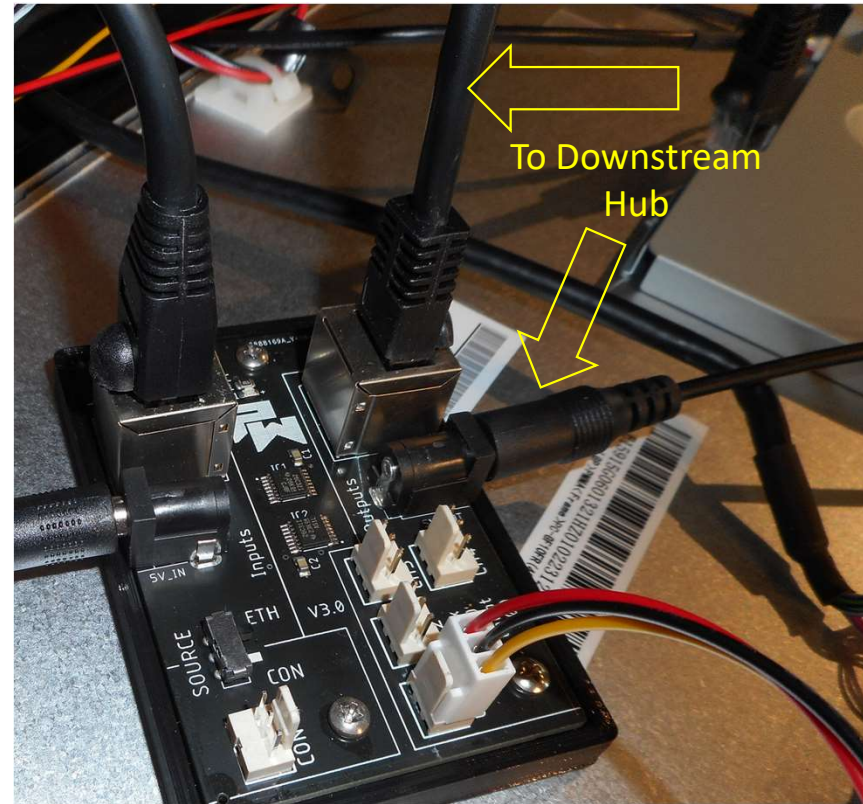
Connect Hub

- Connect to CH1 using the cable from the LEFT speaker, as shown.
- Connect to CH2 using the cable from the RIGHT speaker, as shown.
- Move the “SOURCE” switch lever to the “CON” side as shown in the yellow circle.
- Plug the 5V DC Power Plug to the input power jack as shown.
- Plug the controller receiver to the “CON” header as shown.



Additional Hub Connection

- Expansion for one additional Hub is supported.
- Additional LEDs can be connected using the output of the first hub, and routing to a second, additional hub.





You Have Installed your LED Speaker Lights

Addendum - 1

- Shown to the right is a non-PW / non-PinWoofer speaker.
- For this example, the Kenwood KFC-1366S is used.
- Please read this addendum in its entirety and then return the start of this instructional document.



Addendum - 2

- This speaker has no integrated gasket for sealing the speaker to a speaker mount.
- A GAP results from mounting this speaker to the PixlWav Mounting Diffuser hardware.
- A gasket's purpose is to allow a pressure wave to develop between the front and back of the speaker which increase mid-bass levels.
- A missing gasket not only sounds “thin”, but the speaker and stack-up can vibrate audibly.
- This condition cannot persist and must be addressed.



Addendum - 3

- Pictured to the right is a speaker plate with a stern 5.25in Foam Speaker Gasket.
- This is Stern part #626-5113-00.
- Stern Limited-Edition titles generally have this included as part of the factory supplied speaker panel assembly.
- If you have the Kenwood KFC-1366S (or other speaker without an integrated gasket), utilize your existing gaskets if you have them.
- Otherwise, you will need to purchase two of these before installing this speaker light kit.
- An online search of "Stern 626-5113-00" will yield several outlets.



Addendum - 4

- Secure the speaker over the PixlWav Mounting Diffuser, the supplied LED ring and the newly installed gasket.

