



STERN Pinball Inc.

Expression Speaker Lighting Kit

Spike 2 Pro and Premium Models

Installation Instructions

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Note: This instruction sheet is provided as a guide for installation. The installation is performed by a qualified service professional. It is the responsibility of the service person installing to make sure it is installed properly and securely.

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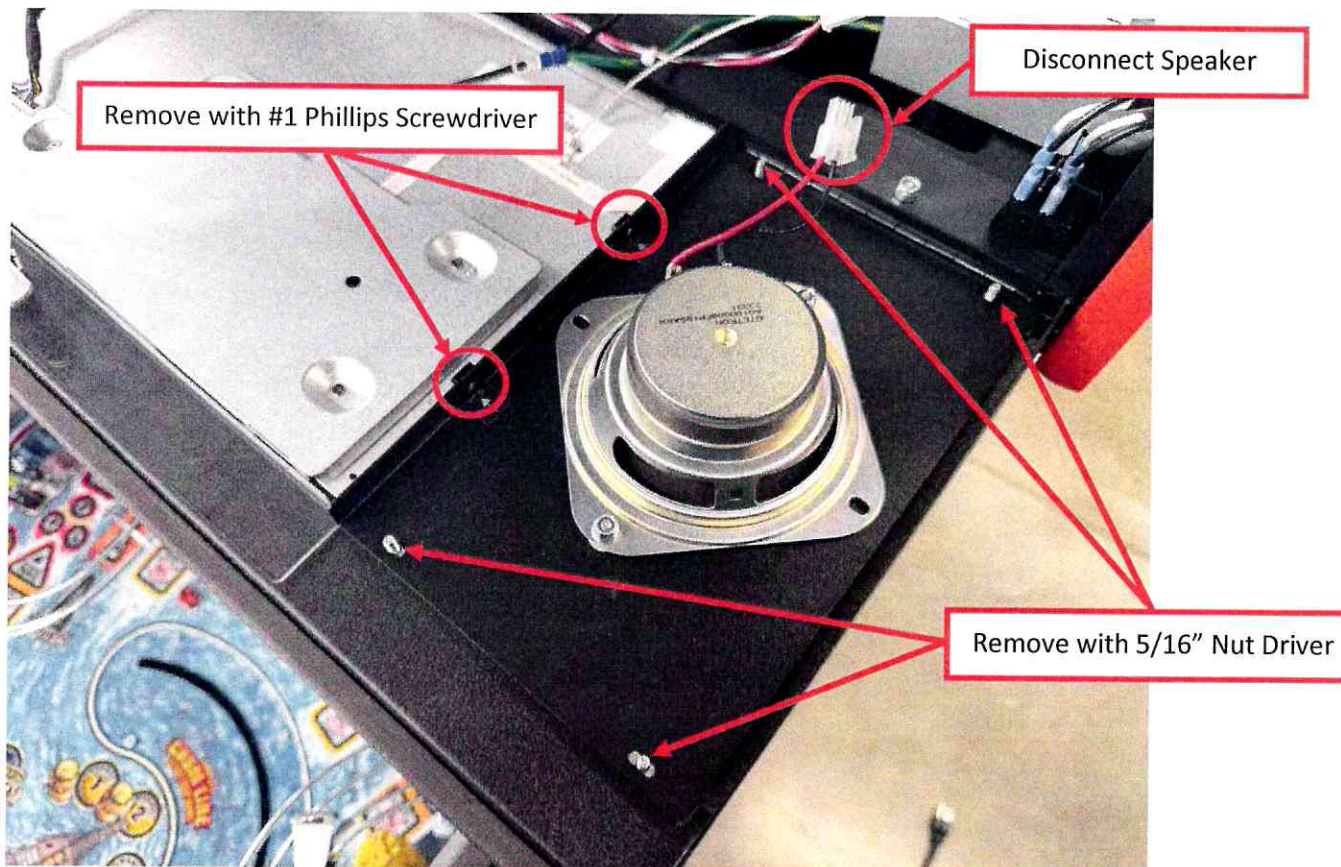
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1. Tools Required For Installation

1. #1 Phillips Screwdriver
2. 5/16" Nut Driver
3. 1/4" Nut Driver

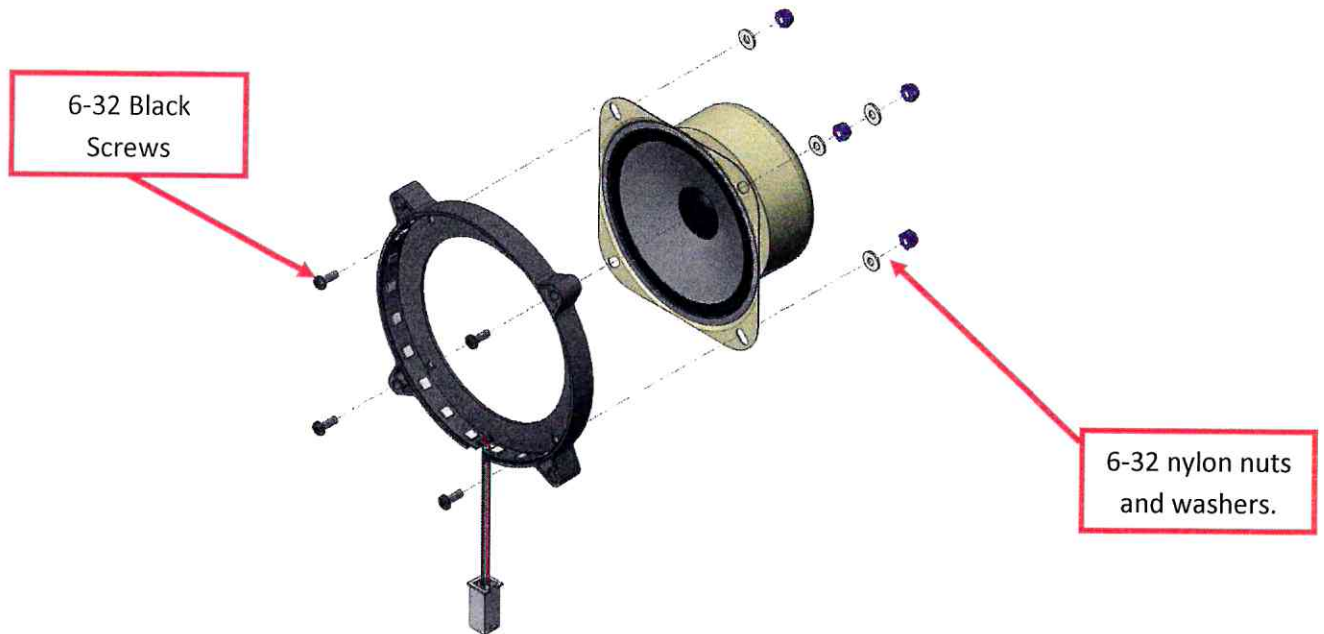
2. Remove Right Speaker Assembly from LCD

1. Power off the machine and open the speaker panel. Remove game back glass. Please consult the game manual for instructions on how to do this properly. Disconnect any topper power connections to power distribution board (CN7).
2. Disconnect the speaker 2-pin connector.
3. Use a #1 screwdriver to remove the two Phillips screws connecting the speaker panel to the LCD panel. On right speaker only, note green ground wire ring terminal location.
4. Use a 5/16" nut driver to remove the four 6-32 nuts and washers indicated below. Please note cable clamp, washer and speaker panel suspension cord locations before removal.



3. Create Speaker Light Assembly

1. Using a 5/16" nut driver to remove the original speaker from the removed speaker assembly.
2. Using a #2 Phillips screwdriver and a 5/16" wrench or nut driver, attached the original 4" speaker to the speaker light ring assembly with the provided 6-32 black screws and nylon lock nuts.



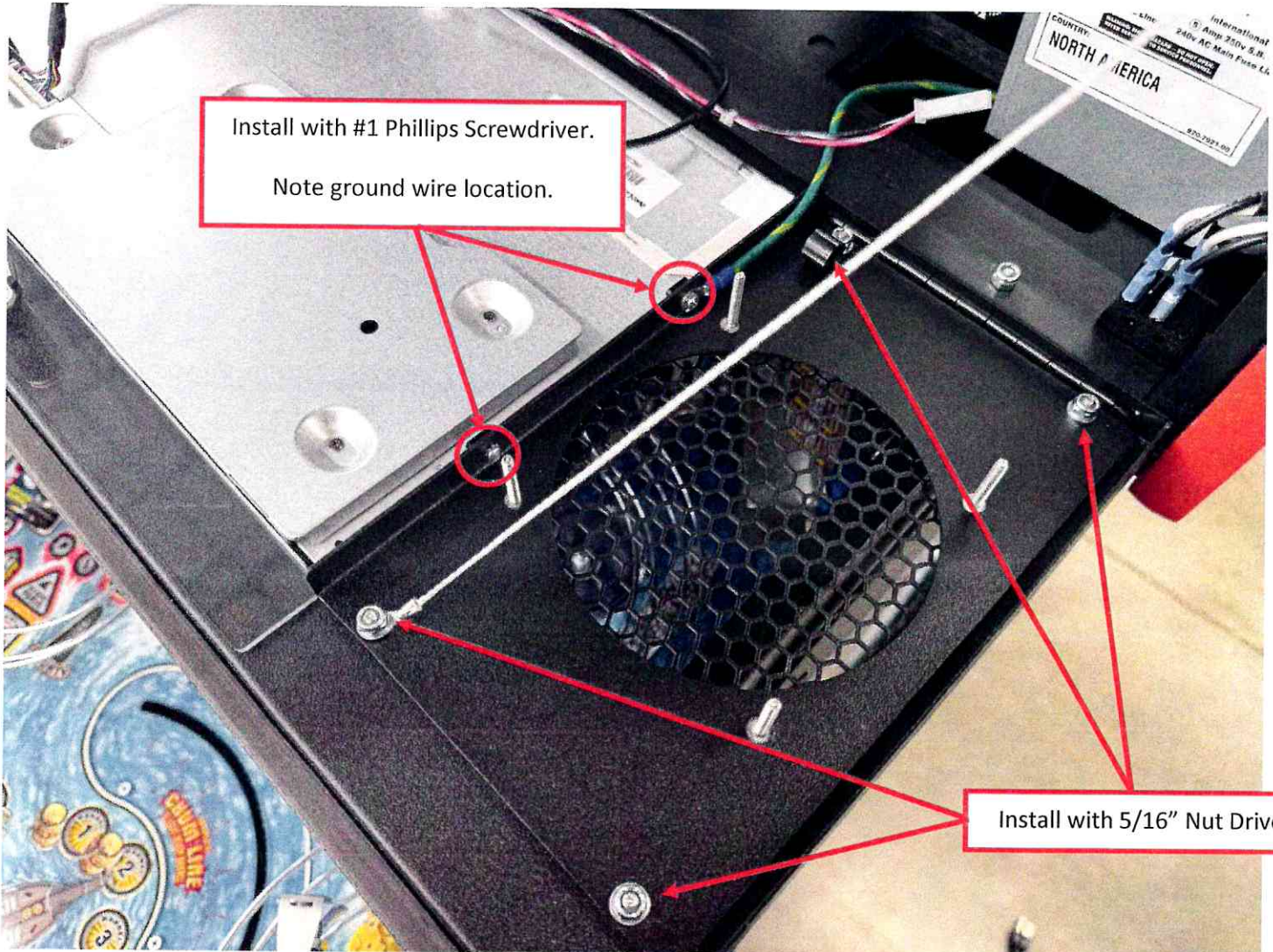
4. Remove Speaker Assembly and Foam

1. Remove speaker assembly and foam pad from speaker panel.



5. Install Speaker Mounting Plates

1. Use a #1 screwdriver to install the two Phillips screws connecting the speaker plate to the LCD panel. On the right speaker only, install ground wire ring terminal to inner screw location as shown.
2. Use a 5/16" nut driver to install the four 6-32 nuts and washers indicated below. Use indicated cable clamp, washer, and speaker panel suspension cord locations that were noted earlier. See below image for reference.



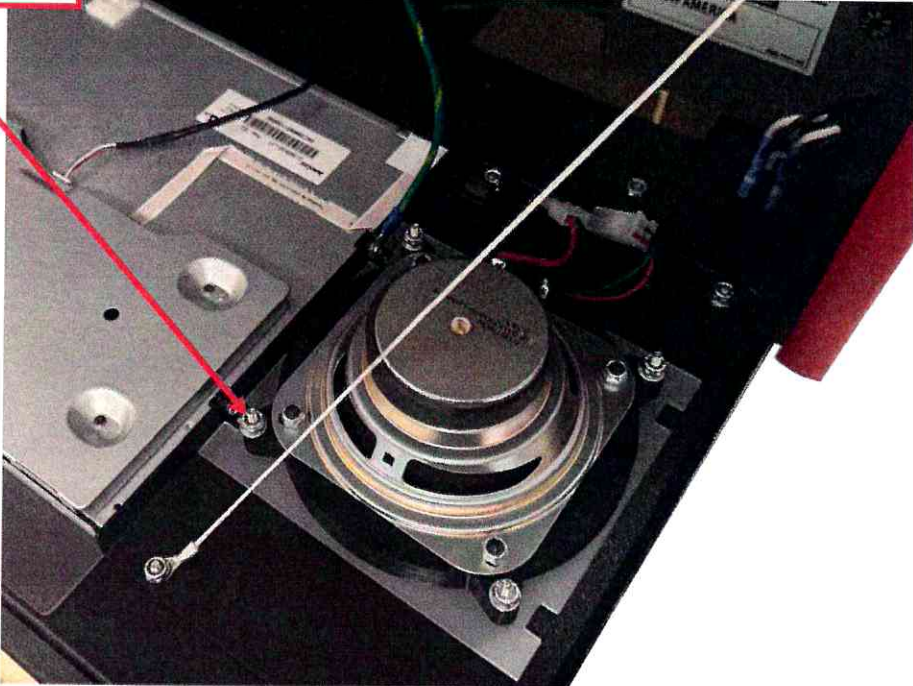
6. Install Light Ring and Speaker

1. Install the included light diffuser as shown.
2. Install the light ring and speaker assembly with the cable oriented towards the back of the game.
3. Install provided speaker with the cable towards the back of the game.
4. Using a 5/16" nut driver, secure the speaker with the provided #6 washers and 6-32 nylon locking nuts.
5. Reconnect speaker cables.



Install Light Diffusing Plastic

This image shows a close-up of the light diffuser being installed. A red arrow points from the text box to the diffuser, which is a circular component with a honeycomb mesh pattern. It is being secured to a metal plate with a screw. The surrounding area is the interior of the game cabinet, showing various components and wiring.



Secure Speaker and Light Ring assembly with 6-32 nuts and washers.

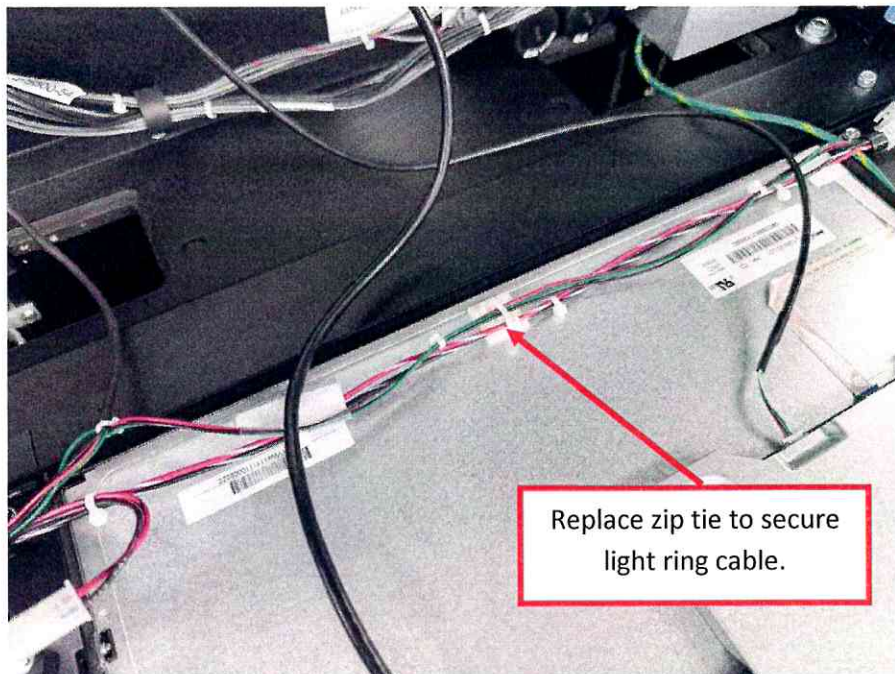
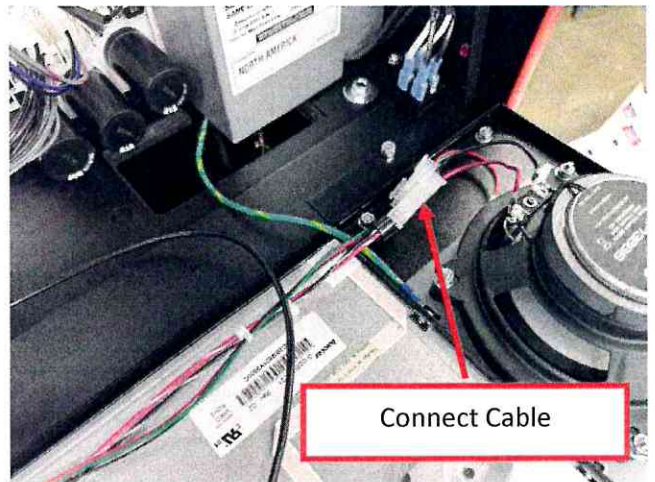
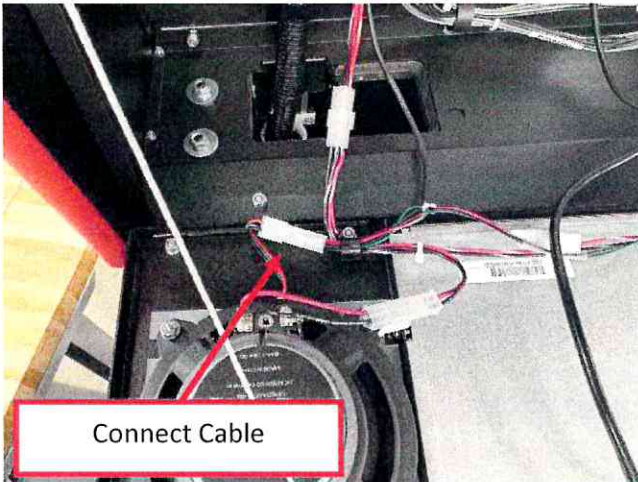
This image shows the speaker and light ring assembly being secured. A red arrow points from the text box to the assembly, which is a circular component with a metal ring. It is being secured to a metal plate with a screw. The surrounding area is the interior of the game cabinet, showing various components and wiring.

7. Install Left Speaker

1. Repeat sections 1-5 to install left speaker assembly.

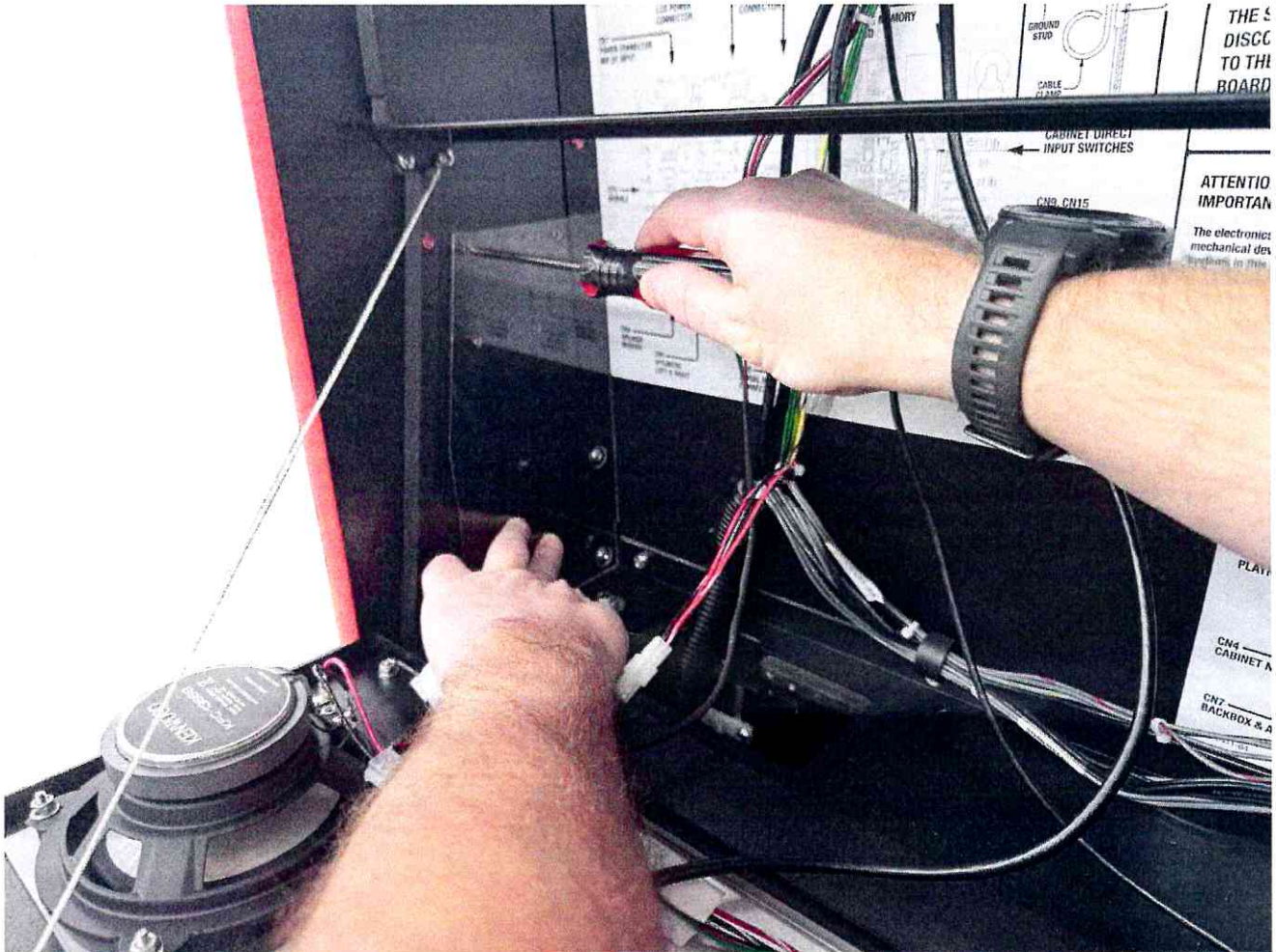
8. Install Light Ring Splitter Cable

1. Install provided light ring splitter cable as show.
2. Remove factory installed zip tie from center anchor and secure light ring cable with provided zip tie.



9. Spot Speaker Light Node Location

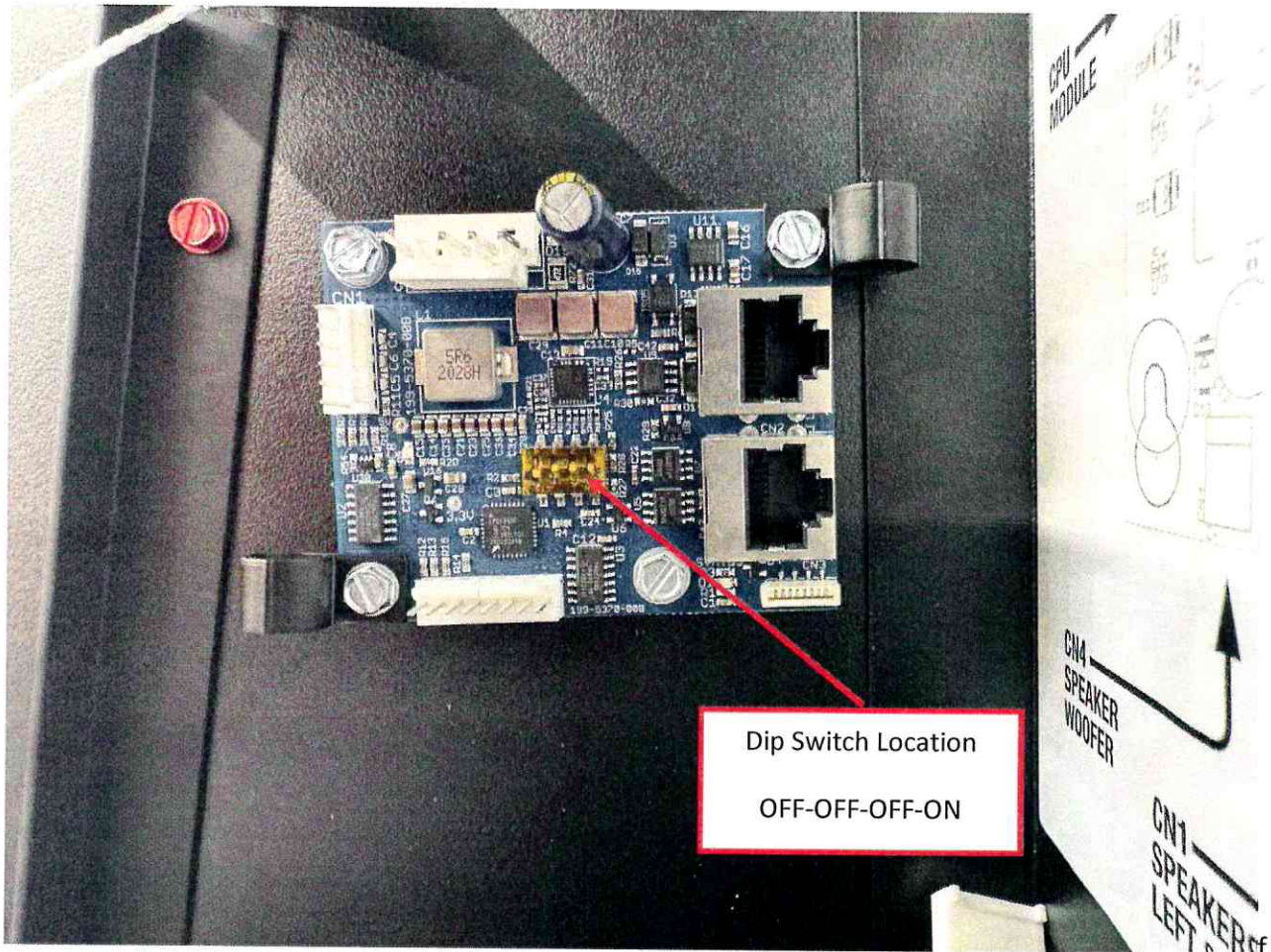
1. Using the provided spotting guide, use a pointed object (such as a #1 Phillips screwdriver) to mark the 4 spotting locations. Locate the guide as shown before marking locations.



10. Install Speaker Light Node and Cable Clamps

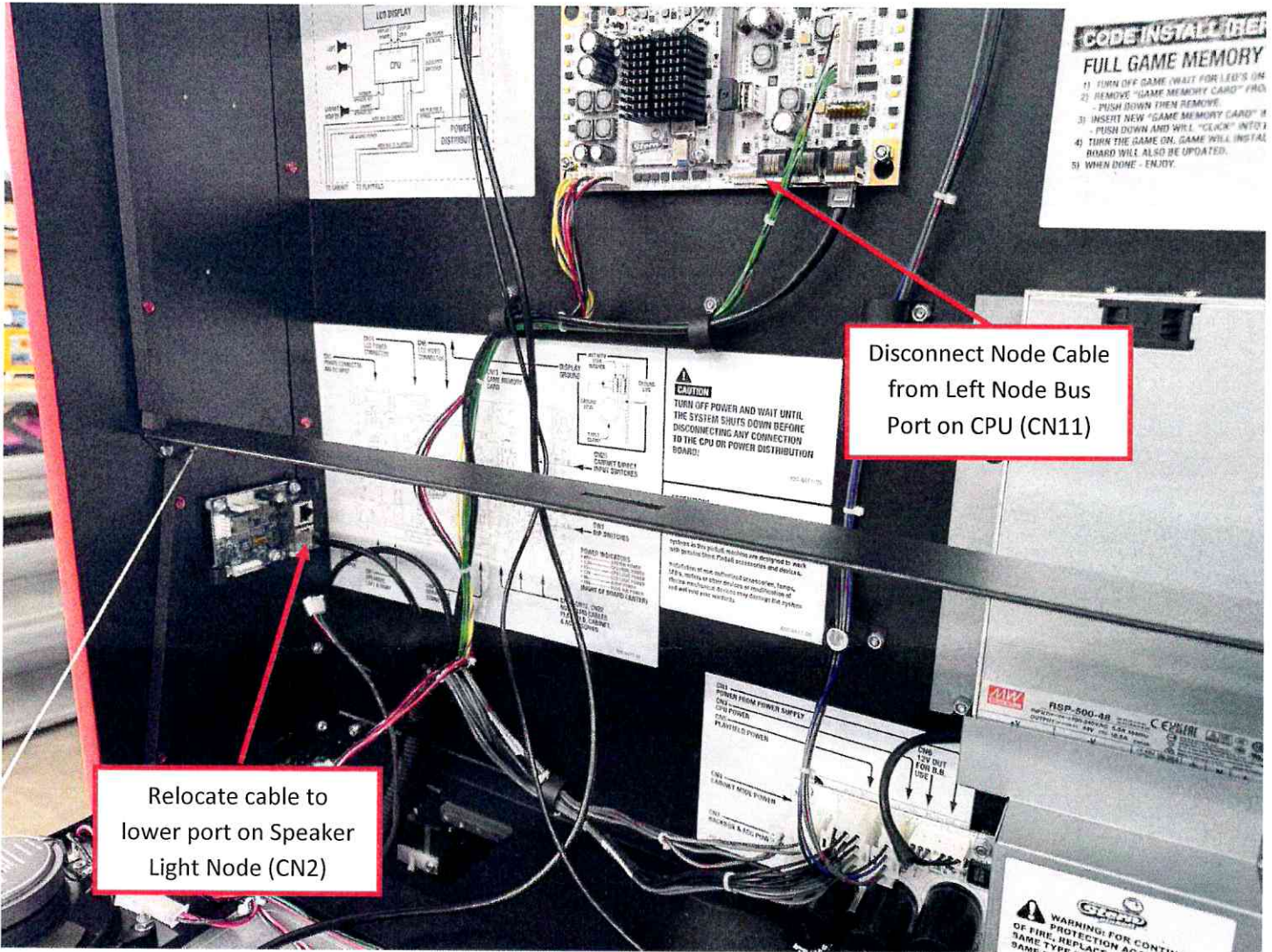
1. Using a ¼" nut driver, install the Speaker Light Node, cable clamps, and #6 x ¾ hex head screws as shown.
2. Verify dip switches are set to node address 7

	Dip Switch 1	Dip Switch 2	Dip Switch 3	Dip Switch 4
Node 7 Address	OFF	OFF	OFF	ON



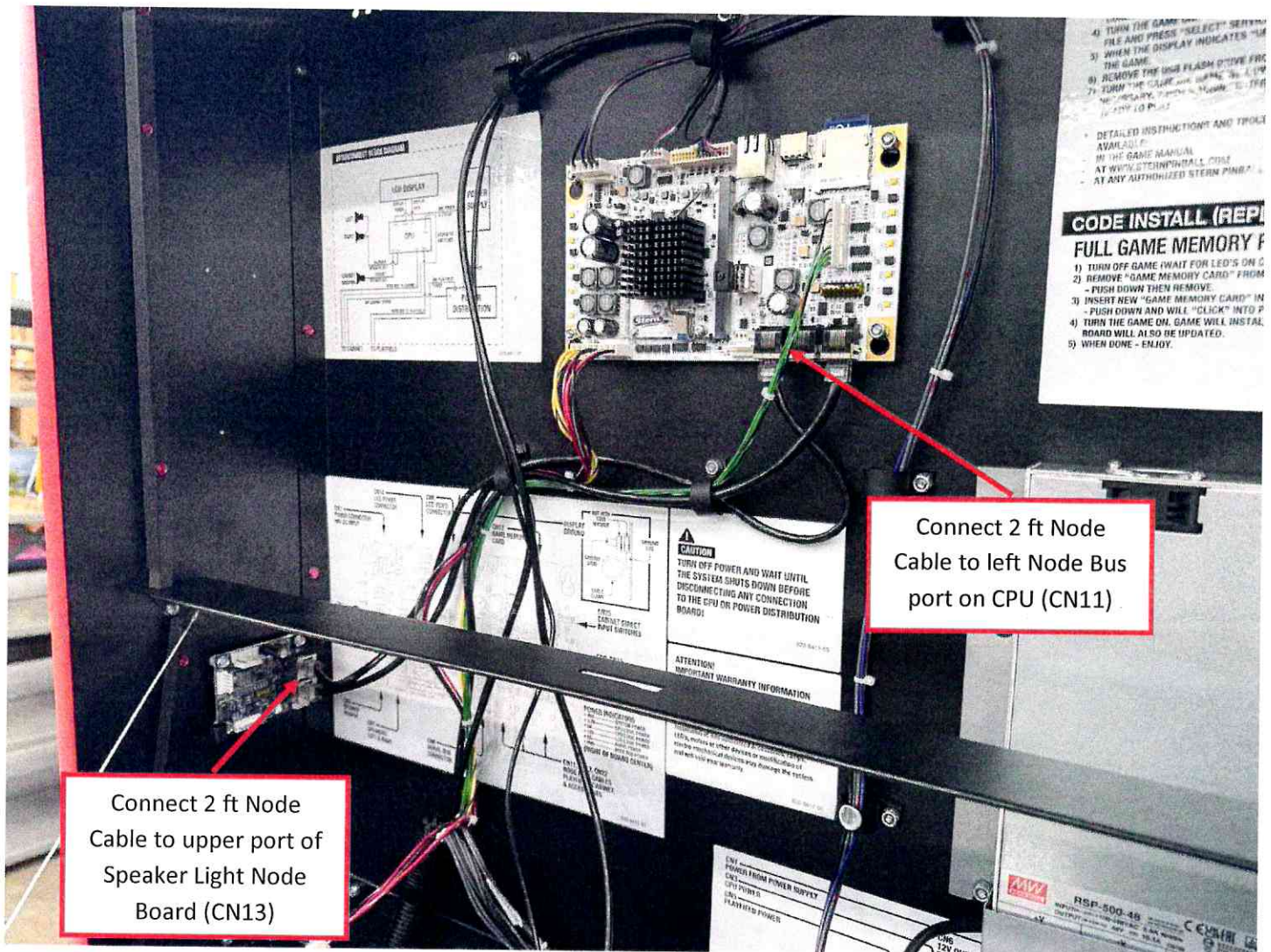
11. Reroute Cabinet Node Bus Cable

1. Relocate node bus cable from Left Node Port on CPU (CN11) to lower port of the Speaker Light Node (CN2).
2. Dress relocated node bus cable as shown.



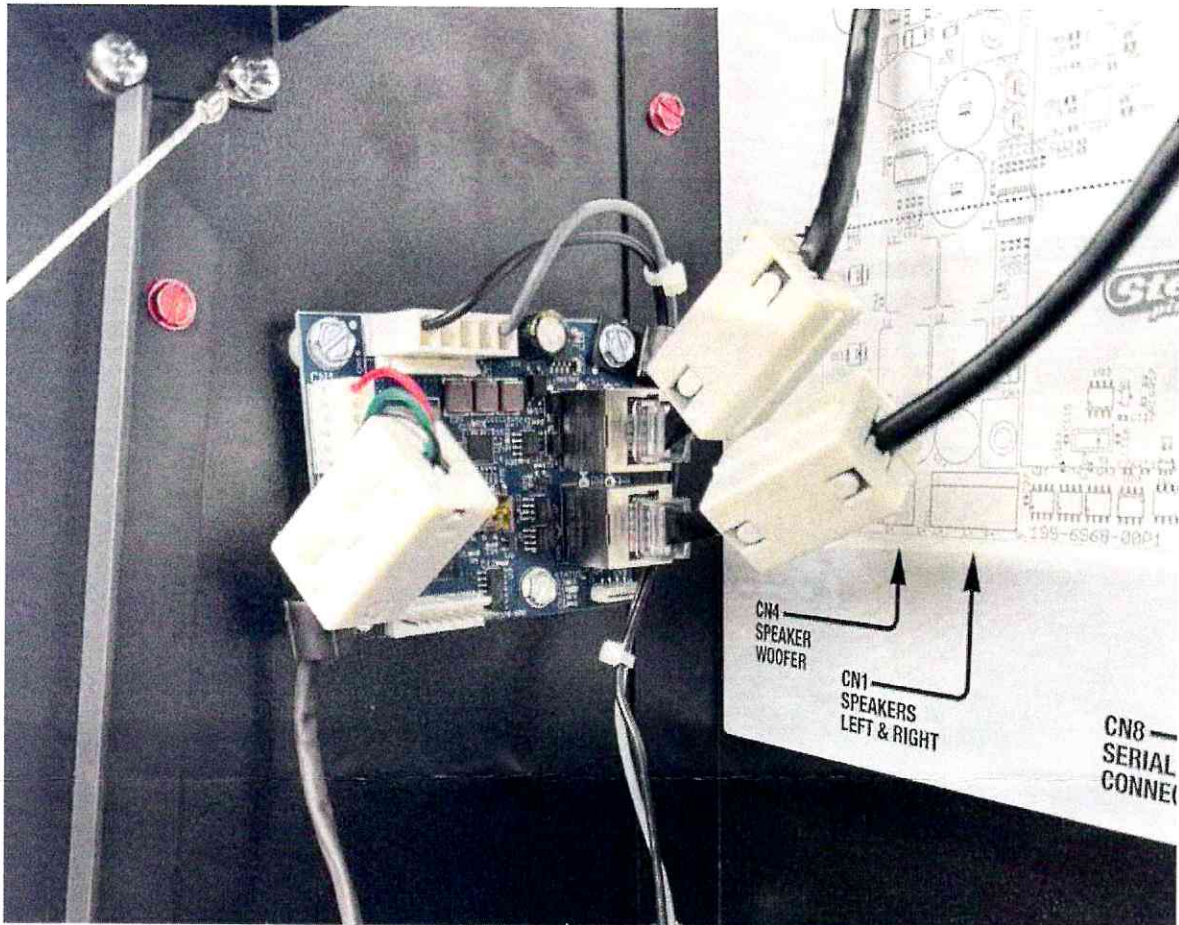
12. Install Speaker Light Node Cable

1. Install provided 2 ft Node Cable between Left Node Port of CPU (CN11) and upper port of Speaker Light Node (CN13).
2. Dress new node cable into speaker clamps as shown.



14. Install EMI Ferrites

1. Install 3x provided EMI Ferrites to node cable and light ring cable as shown.



15. Test Speaker Ring Functionality

1. Close the speaker panel and coin door.
2. Cycle main power switch to boot game. Ensure that the speaker light rings function properly.

16. (Optional) Connect Topper Power to Splitter

1. If installing a topper on the cabinet, connect the topper power to the empty branch of the 48V node power splitting cable rather than directly to Power Distribution Board.

