COLORDMD

*ColorDMD 128x16 H-LED Display Installation Instructions for **Data East** Metal Speaker Panels*

Congratulations on the purchase of a new ColorDMD display. The ColorDMD will enhance your pinball machine by introducing *color* to the dot matrix display graphics produced by the game.

Tools Required: • 5/16" Nut Driver

⚠️ *Be sure to turn **OFF** the power to the pinball machine before installing the ColorDMD 128x16 H-LED display.*

STEP ① Remove the original DMD from the pinball machine by disconnecting the two cables and removing the four mounting nuts. Insulate the disconnected original DMD high power cable with electrical tape (it will not be used with the ColorDMD 128x16 H-LED display).

STEP ② Carefully extract the game ROM chip from socket U8 on the back side of the original DMD and then insert it into socket U9 on the ColorDMD circuit board. Orient the ROM chip so the half moon polarity markers on the ROM chip and the socket are on the same end. Ensure all of the game ROM chip pins are properly inserted into the socket. (See Fig. A)
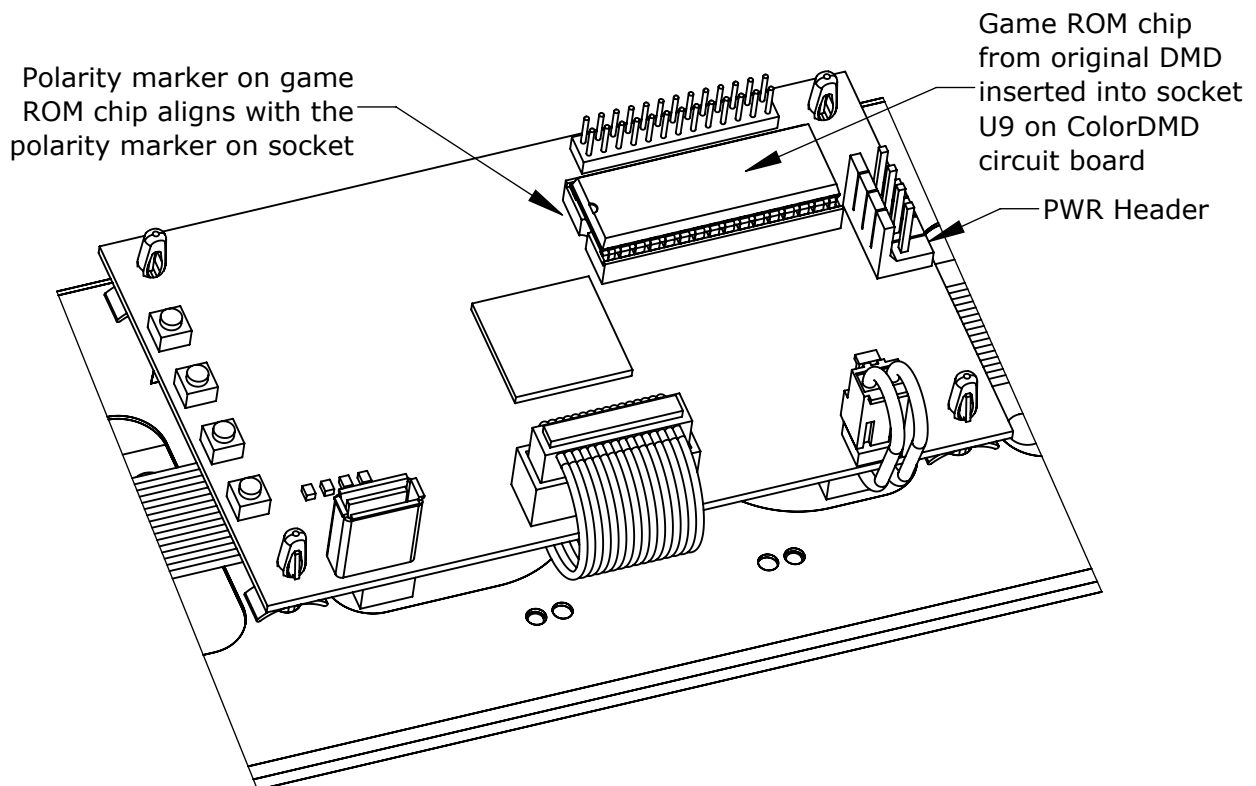
Polarity marker on game ROM chip aligns with the polarity marker on socket

Game ROM chip from original DMD inserted into socket U9 on ColorDMD circuit board

PWR Header

Figure A

STEP ③ Locate the two 3" pieces of black adhesive backed foam in the accessory bag. Peel off the backing and attach the foam to the front of the ColorDMD metal bracket against each side of the LED display (see Fig. B).
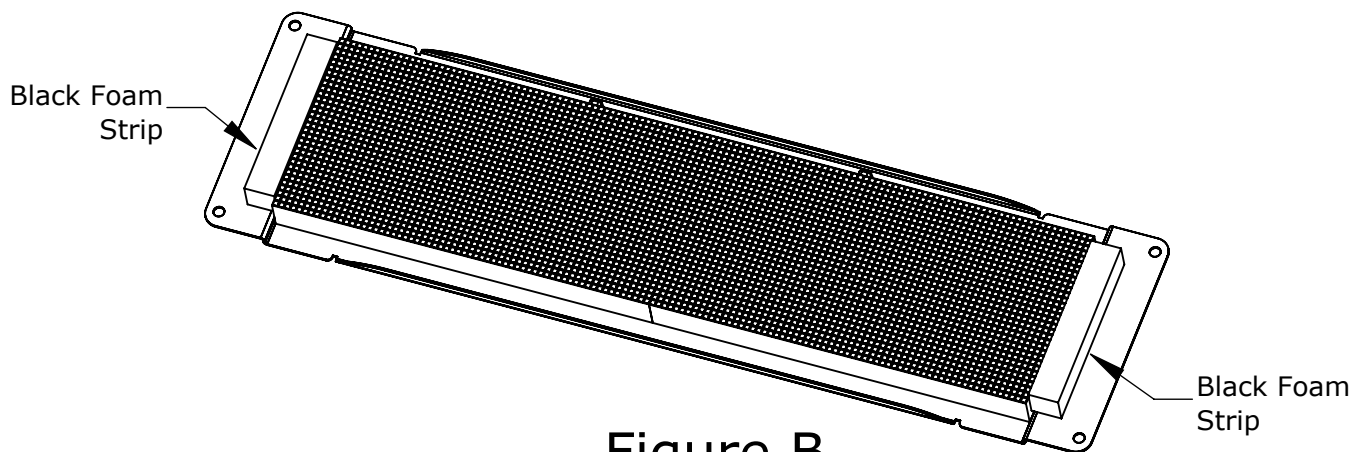
Black Foam Strip

Black Foam Strip

Figure B

⚠ **WARNING**. **Electric Shock Hazard** - To protect against accidental electric shock, **<u>DO NOT</u>** operate the game without ensuring that the ColorDMD metal bracket is electrically grounded to game via the metal speaker panel.

STEP ④ **Using the four included larger (1/2" dia.) Nylon spacers**, install the ColorDMD H-LED with the Warning Label UP Arrows facing the top edge of the speaker panel (see Fig. C).
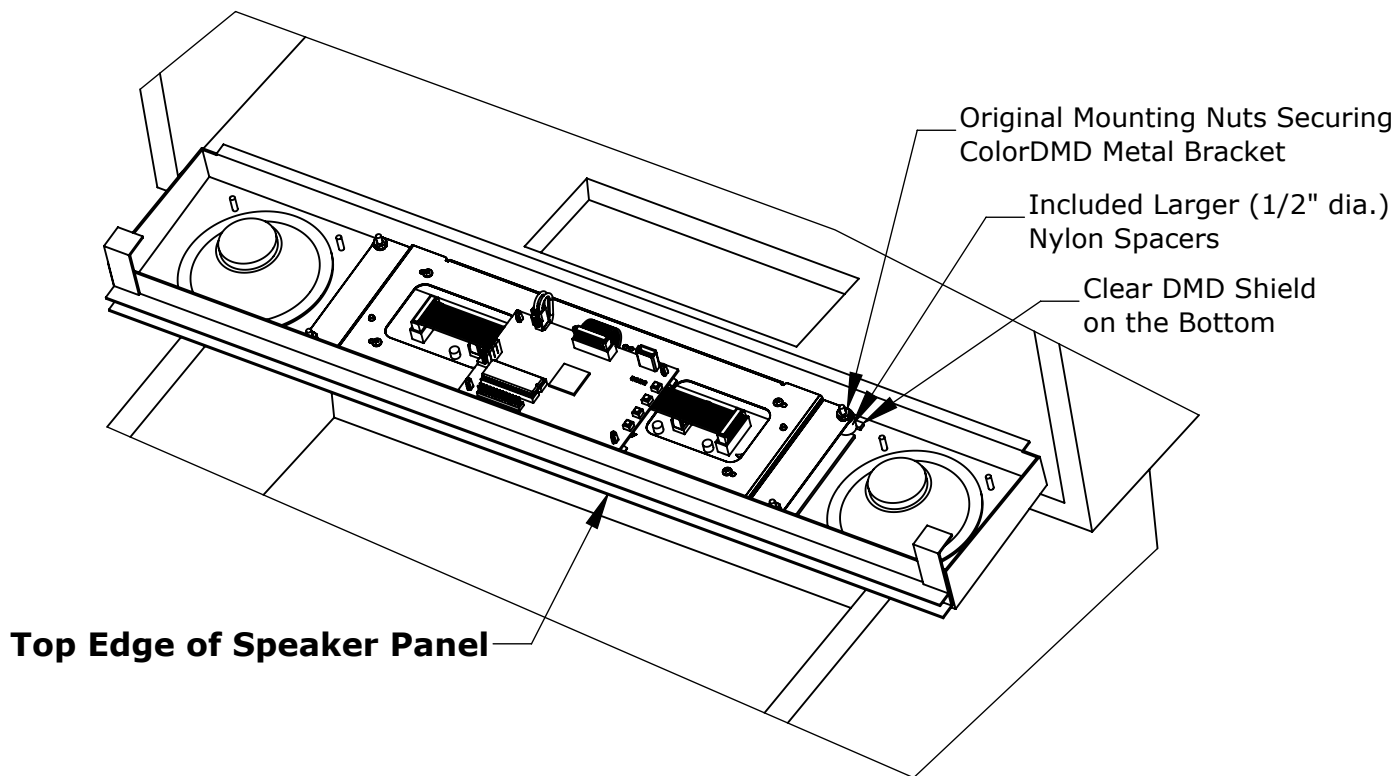
Original Mounting Nuts Securing ColorDMD Metal Bracket

Included Larger (1/2" dia.) Nylon Spacers

Clear DMD Shield on the Bottom

Top Edge of Speaker Panel

Figure C

STEP **5** Locate the included ColorDMD Power Tap and Power Harness in the accessory bag.

Installing the ColorDMD Power Tap

Temporarily remove the game's 15-pin power cable connector from CN6 on the Power Supply Circuit Board located inside the backbox (See Fig. D).

1. Attach the ColorDMD Power Harness to the ColorDMD Power Tap (see Fig. E).

2. Install the ColorDMD Power Tap to CN6 (See Fig. E). The ColorDMD Power Tap is keyed and will only install one way.

3. Attach the game's 15-pin power cable connector to the ColorDMD Power Tap (See Fig. E). The 15-pin power cable is keyed and will only install one way.
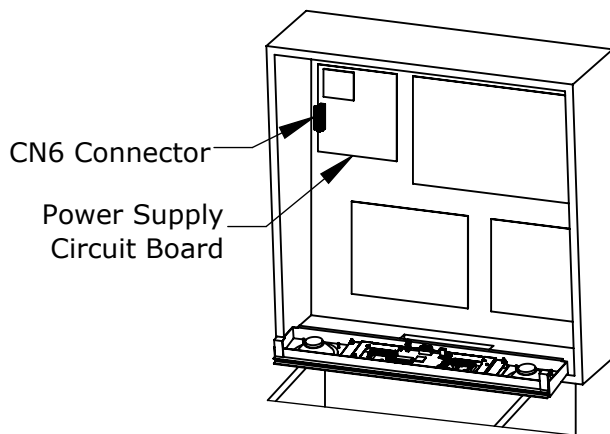
CN6 Connector
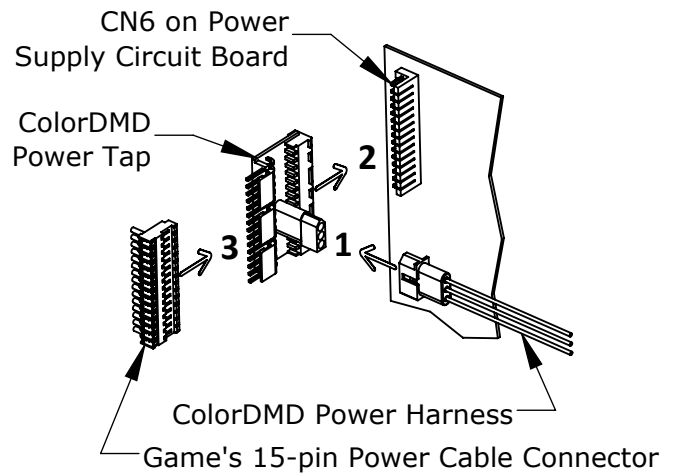
Power Supply Circuit Board

Figure D

CN6 on Power Supply Circuit Board

ColorDMD Power Tap

2

3 **1**

ColorDMD Power Harness

Game's 15-pin Power Cable Connector

Figure E

STEP **6** **Plug the other end of the ColorDMD Power Harness into the PWR header on the ColorDMD circuit board** (See Fig. A)**.** Route the Power Harness to ensure there is no stress on the connections to the ColorDMD Power Tap.
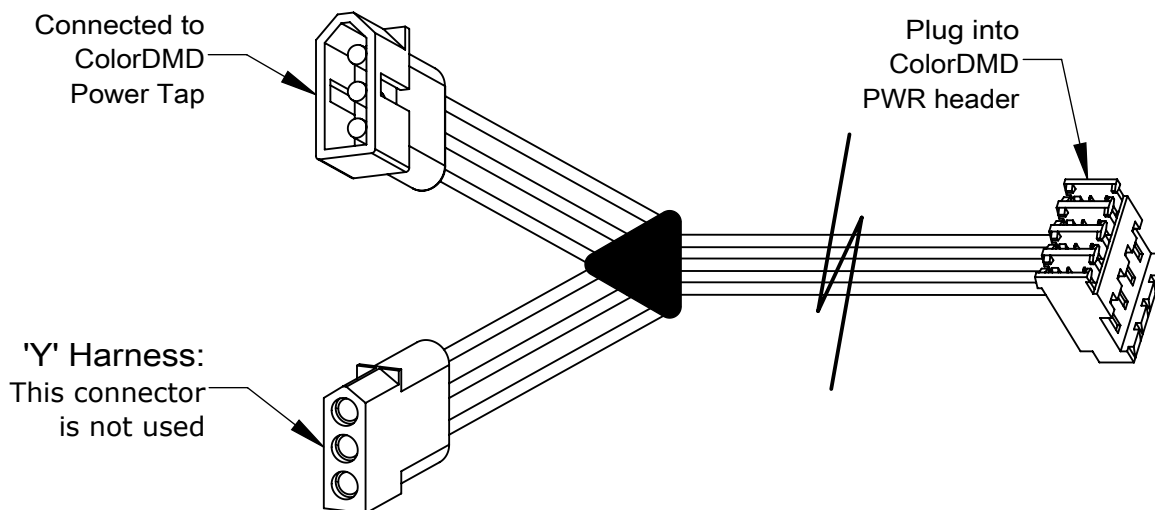
Connected to ColorDMD Power Tap

Plug into ColorDMD PWR header

'Y' Harness:
This connector is not used

Figure F

STEP (7) **Plug the 22-pin ribbon cable into DE_CPU on the ColorDMD H-LED circuit board** with the **red stripe on the right-hand side** (see Fig. G). The other end of this cable should still be plugged into CN22 on the CPU Board board with **red stripe also on the right-hand side**.

⚠ *Double check for proper alignment of **all** cable connections.* Coil the excess and route the ColorDMD Power Harness along with other existing cables for a clean install.

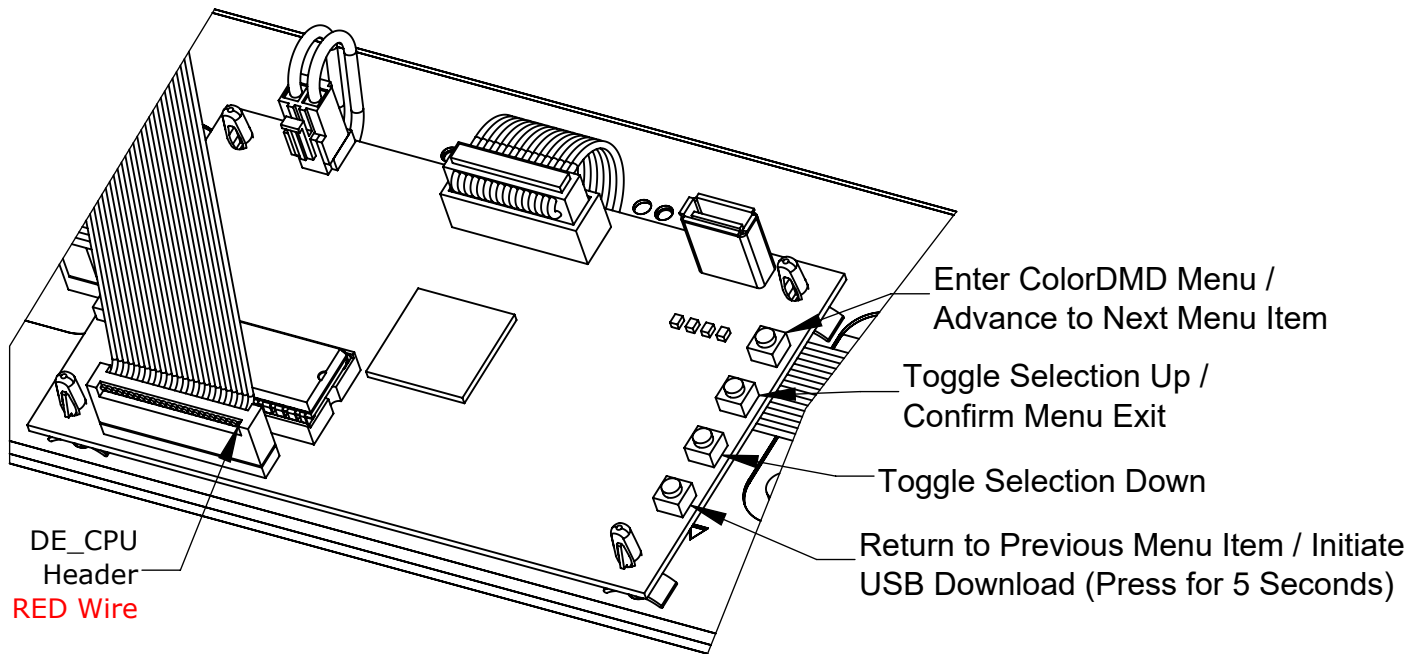STEP (8) While ensuring no wires get pinched, raise the speaker panel and turn on the pinball machine.

Enter ColorDMD Menu / Advance to Next Menu Item

Toggle Selection Up / Confirm Menu Exit

Toggle Selection Down

DE_CPU Header

RED Wire

Return to Previous Menu Item / Initiate USB Download (Press for 5 Seconds)

Figure G

STEP (9) Press the right-most ColorDMD H-LED push-button to customize the display settings. When finished press the Confirm push-button to "EXIT AND SAVE". (See Fig. G)

For additional information regarding installing ColorDMD game specific color file using the USB port, please visit our website at **www.colordmd.com**.