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Integrating Clockaudio CH32 Touch-switch and a Conference Microphone with Symetrix DSP

This Tech Tip will explain how to integrate the Clockaudio CH32 illuminated Halo LED touchpad and a cardioid desktop microphone with a Symetrix DSP.

It should be noted that any future Clockaudio products utilizing a bi-colored status indicator and switch will be standardized, using the same color code and connection method. At present, this tech tip is valid for the CH32, TS001, SM80S, S80, and CSS Series (CS1S-CS4S).



The integration of Clockaudio conference systems can be performed with any Symetrix DSP that has analog control inputs, however this tech tip uses a SymNet Edge specifically in all examples.

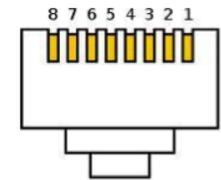
The CH32 is a translucent white, bi-color Halo Ring which includes a touch pad switch. There are (16) Red and (16) Green LEDs in the ring.

The logic outputs on the Edge unit can power single LEDs, but cannot provide the 60mA @ 12 VDC required to power the entire Halo Ring.

It is necessary to employ an external 12 VDC regulated power supply, in order to operate the CH32.

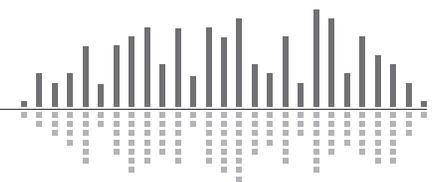


Cable Color	Function	RJ45 Pin Number
Red	Red LED	2
Blue	-V Switch	3
Brown	+V (12 VDC) Switch	4
Yellow	Switch Logic Control	5
Green	Green LED	6



The CH32 has a wire pigtail with an RJ45 connector crimped on one end. The product comes with an RJ45 straight-through coupler to facilitate the connection to a permanently installed CAT5/5e/6 cable.

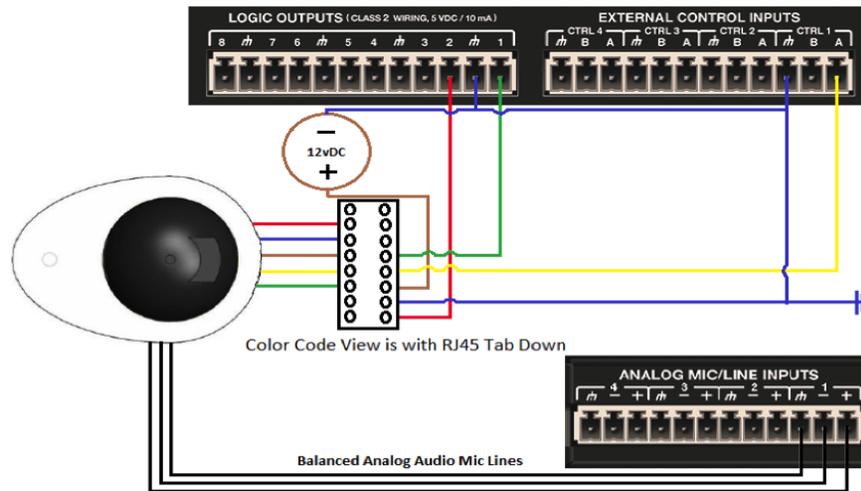
Please be aware that the wiring scheme may vary on your specific model of CH32. Always double check the manufacturer's documentation for the exact wire coloring of your model CH32.



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Please refer to the diagram below as an example of wiring a CH32v02 to Edge's Logic Outputs, External Control Inputs, and Analog Mic/Line Inputs:



NOTE: The coupler that ships with the CH32 has its corresponding pins visually in a crossover pattern if looking down directly at the coupler. The coupler's pin pattern is directly duplicated on the opposite face. The wiring diagram above displays the colors considering that only pins 2 - 6 are used and assuming that the same colors are continued on the other side of the coupler.

