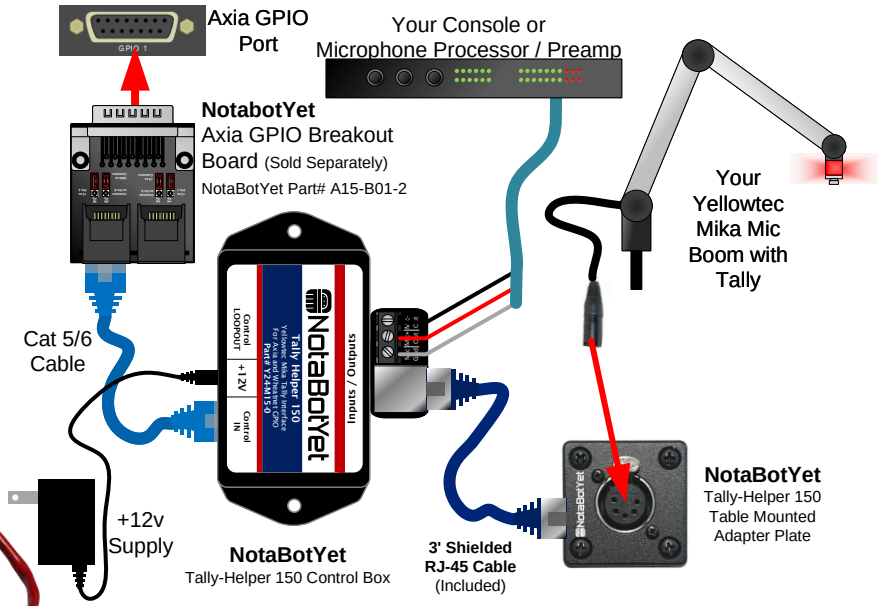
NotaBotYet

Tally Helper 150 for Axia GPIO and Wheatnet Logic

Part #Y24-M15-0



Installation Example

Purpose:

The NotaBotYet Tally Helper 150 was designed to make installation and operation of Yellowtec Mika microphone arms with integrated "On Air" signal simple and easy. The latest versions of the Mika arms have a signal that can be either red or white depending on the polarity of the wiring to the light. The Tally Helper 150 from NotaBotYet makes it easy to use either color on the fly, without rewiring. Control and choose the color indication using any simple GPIO signal from Axia, Wheatnet IP, or any other active low GPIO output including dry closures to ground.

Connections:

The system consists of an in-table mounted 5-pin XLR female jack as well as a remotely mounted control box. The two are connected via a shielded Cat5E cable. The system is designed to receive the 5-pin xlr male connector that can be optionally added to a Mika microphone arm. This allows for quick installation and also removal if needed (helpful for maintenance in a live studio!). The microphone signal is routed passively to the microphone output screw terminals on the control box where a microphone cable can be connected and travel on to the audio console or microphone processor or preamp. The microphone ground is completely isolated from the logic circuit power ground to reduce the possibility of noise getting into the mic chain.

Control: Input to the control box is a standard RJ-45 connector. The pinouts of this connector match the RJ-45 connectors on our NotaBotYet Axia GPIO Breakout Board (Part #A15-B01-2) or the RJ-45 connectors on any Wheatnet Logic port. However, if your plant is not using Axia or Wheatnet, any type of relay or open collector device that provides a closure to ground to trigger the inputs can be used to control the device, just match the input pinouts. A second RJ-45 wired in parallel acts as a convenient control loop through allowing up to six Tally Helper 150 units to be daisy chained

The included +12V supply connects to the 2.1mm power connector.

Programmable Jumpers: Located inside the unit (accessible by removing the four screws in the lid of the control box) is a 6X3 pin header. This header is used to determine which input bit will trigger which color on the Mika microphone arm. For example, putting a jumper between the "RED" column and the "COM" column on row 1 will make the Mika light turn red whenever input 1 is activated. If a Jumper is placed between the "WHT" column and the "COM" column on row 5, then the Mika light will turn white whenever input 5 is active. If the configured inputs are active for both a red and white at the same time, the light simply will stay off to avoid a conflict in polarity.

RJ45 Input Pinout: (Ground to Activate)

Pin Number	*EIA/TIA 568B Wire Color*
1 GND	Org/W
2 In 1	Org
3 In 2	Grn/W
4 In 3	Blu
5 In 4	Blu/W
6 In 5	Grn
7 In 6 (Wheatnet Logic Only)	Brn/W
8 No Connection	Brn

Output Pinout (TB Strip):

1 Mic GND Mika Microphone Arm
2 Mic + From Mika Microphone Arm
3 Mic- From Mika Microphone Arm

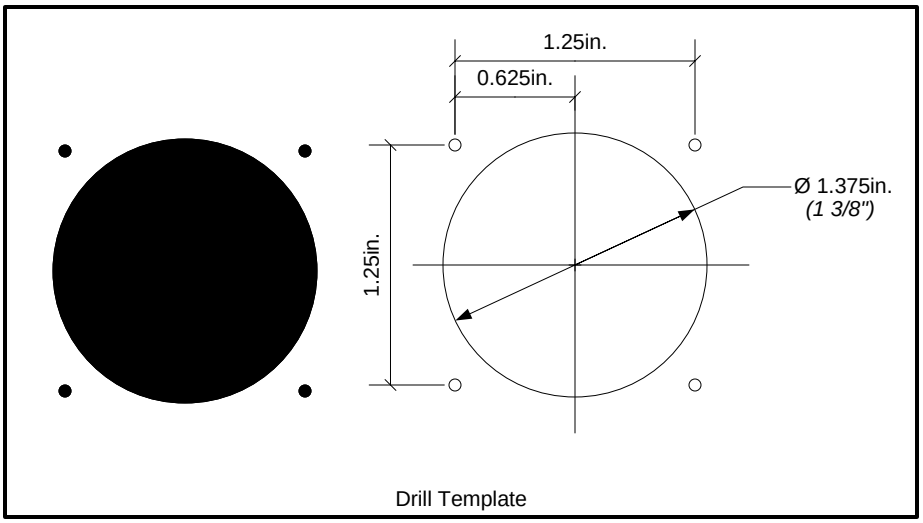
Panel Installation

To install the Panel, Drill a 1 3/8" hole in the countertop. It is suggested that screw holes be pre-drilled with a 1/16" bit to ease installation. Screw the panel to the countertop with the supplied screws.

Once mounted, plug the supplied shielded cat-5 cable to the bottom of the panel. If you desire a longer length, you can supply your own shielded cat-5 cable. If unshielded cat-5 is used, microphone quality may suffer.

The other end of the shielded cat-5 cable should plug into the shielded input connecter on the rear of the control box. (See installation example image on page 1)

Plug the 5 Pin Male XLR that came with your Mika Mic Arm into the Panel on the countertop.



Drill Template

Screwing the panel to a typical countertop.

The control box can be mounted using the two supplied #8 screws. Mount the control box in a convenient place where you can get access to the control inputs as well as the mic outputs.

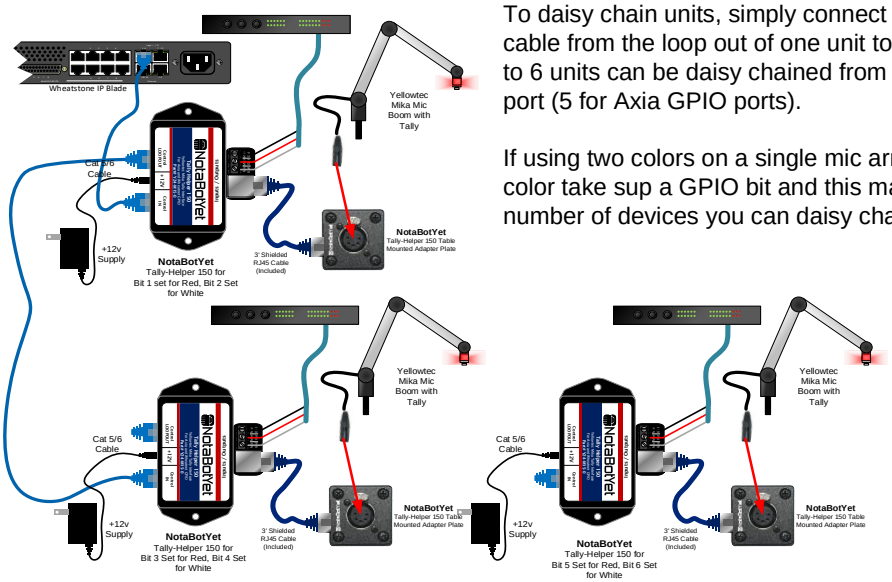
Connect standard shielded balanced audio cable suitable for microphones to the three terminals on the rear of the unit noting the ground and polarity of the balanced audio. Run the other end of this cable to the microphone preamplifier or processor you will be using for the microphone.

Connect the Control IN jack via a standard cat-5 cable to the GPIO outputs of your system that you will be usign to control the mic tally. If using Wheatstone Logic Ports, the cat-5 can simply plug into a standard LIO Port on the rear of a blade. If using Axia GPIO, Connect to the 15 Pin GPIO connector using our Axia GPIO Breakout Board NotaBotYet Part# A15-B01-2. If connecting to another console, consult your user manual and connect open collector active low outputs or dry contacts to the “Control IN” referencing the RG-45 Input Pinout chart on page one to determine your connections.

Inputs can be jumper selected as to which input bit performs the tally functions. By default from the factory, Input bit 1 when pulled to ground activates the red tally light. When input 2 is initiated, the white tally lights. If both are active or neither is active, the tally is off.

In order to daisy chain the units, you may want to use a different control bit to activate your tallies. The jumpers to select this are under the removable top cover. Simply place the jumper on the corresponding bit and color as needed. Remove the jumper if you do not need a particular color.

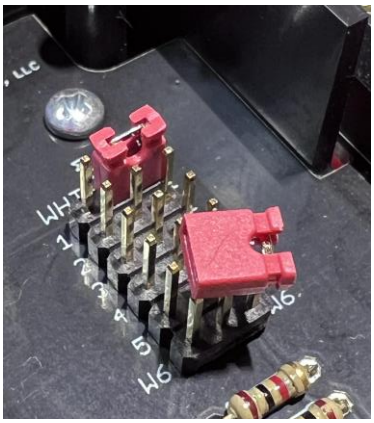
Removing the Top Cover



Installation Example using Daisy Chaining off a single Wheatstone LIO Port

To daisy chain units, simply connect a standard cat-5 cable from the loop out of one unit to the next unit. Up to 6 units can be daisy chained from a single GPIO port (5 for Axia GPIO ports).

If using two colors on a single mic arm, note that each color take sup a GPIO bit and this may reduce the number of devices you can daisy chain.



Jumper Header to Determine Control Bit and Color