

TECH NOTES: CONVERGE CONSOLE 102

SHURE MX392 INSTALLATION AND CONFIGURATION

Description

Using microphones with a push button to mute, unmute the audio or provide a push to talk function adds a great deal of flexibility to a conference room. When using these microphones attention needs to be paid to their functionality. For example, in order for the echo canceller to work properly it needs to sample the audio in the room continuously. If the microphone is muted at the element this cannot happen and there will be echo as soon as the microphone is unmuted. This Tech Note takes you through the configuration steps needed for a microphone equipped with a mute push button on the input channel to the Converge Pro, allowing the echo canceller to continue sampling the room. (There is a Push-to-Talk feature in the Converge Pro which allows the microphone element to be muted but does **not** silence the microphone input. The use of this function will be outlined in another Tech Note.)

The Shure MX392 is a tabletop boundary microphone designed to work with logic and wiring to control external devices. The microphone has DIP switches and a switching membrane to program the Microphone functionality. This document details the correct interface method for the Shure MX932, allowing the microphone to control the muting functions on a Converge Pro conferencing system.

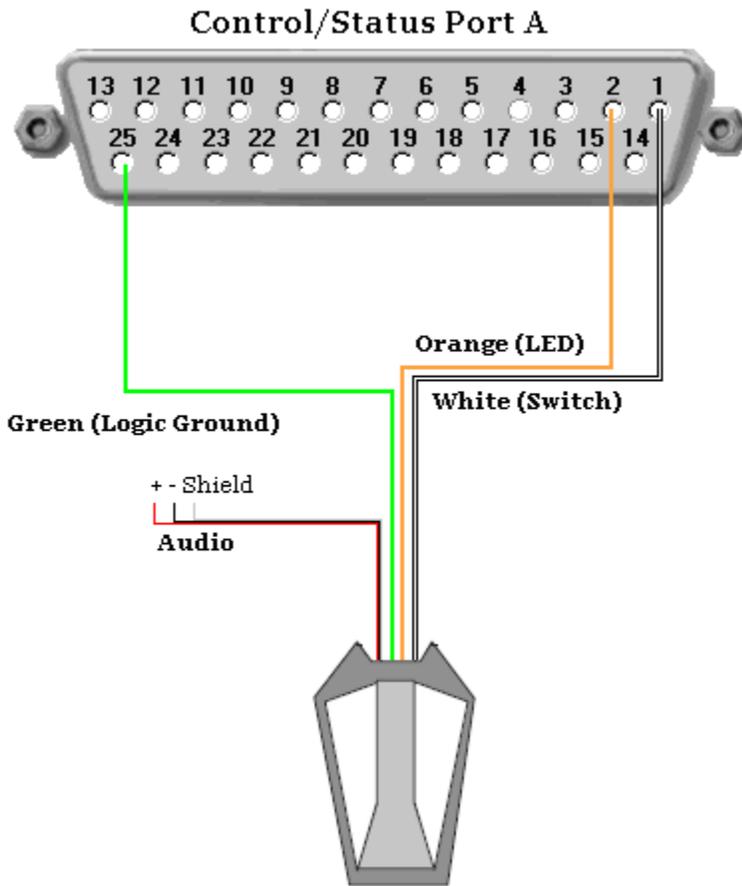


Fig. 1

Installation

1. Wire the microphone balanced audio connection as you would normally. On the microphone input terminal block, wire black to negative, red to positive and white to ground. No XLR power module is required.
2. Next, wire the Shure MC392 according to the diagram (see fig. 1.) using Control/Status port A on the ClearOne Converge Pro 880, 880T, 840T, 8i or SR1212.
 - Odd numbered pins through pin 15 are for control while even pins through pin 16 are for status.
 - Even pins through pin 16 are for status.
 - Pin 25 is the common ground.
 - Mic 1 is wired to pins 1, 2, and 25. Mic 2 is wired to pins 3, 4 and 25 and so on. (See Fig. 1)

Configuration: Push to Talk - Push to Mute

Once the microphones have been installed, they need to be configured for microphone activation and status indication.

1. The first step is to set the DIP switches on the MX392 to allow the microphone to work with an automatic mixer such as the Converge Pro Mixers. The proper DIP switch setting is switch 3 up (on) and 1, 2 and 4 down (off). This will allow the button presses on the microphone to control the input muting and LED status functions to work properly.
2. Control and Status pin programming for the Converge Pro product is done using the CONTROL Builder in Converge console. For a microphone that will be functioning as Push to Talk, Push to Mute, program the control pins with an active (low) command of # .. Mute 1 M 2. There is no need to set up an inactive (high) Command. (see fig. 2)

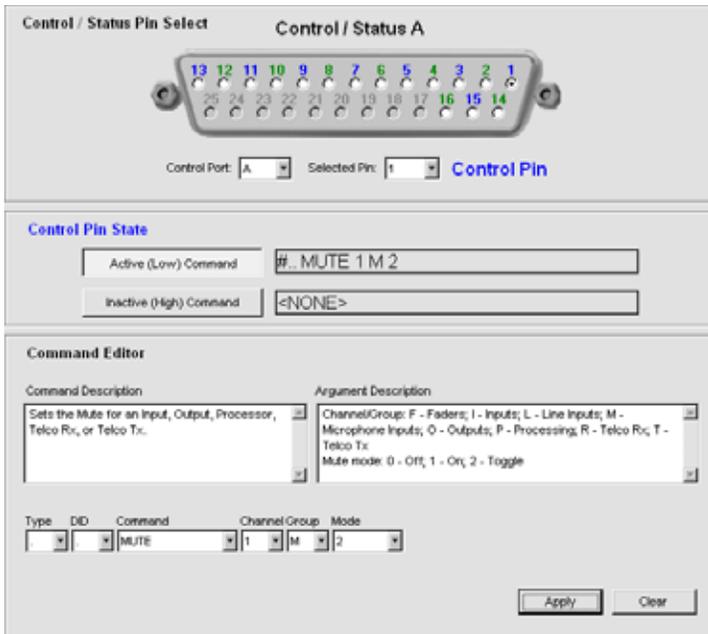


Fig. 2

3. The status pin for the microphone LED is programmed with the active (low) command of # .. Mute 1 M 1 and the inactive (high) command of # .. Mute 1 M 0. This will allow the LED to follow the mute state of the microphone. For example, when the mic is muted the LED will be lit and when the mic is unmuted, the light will be off. (See fig. 3)

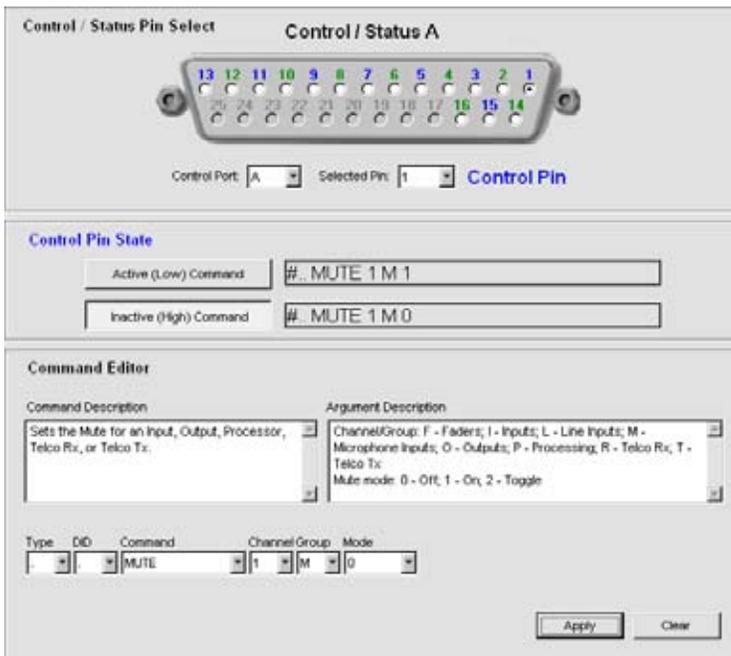


Fig.3

Configuration: Push to Talk, Release to Mute Programming

1. For a microphone that is Push to Talk, Release to Mute, program the control pins with an active (low) command of # .. Mute 1 M 0 to disable the mute and an inactive (high) command of # .. Mute 1 M 1 to enable the mute. (see fig. 4)

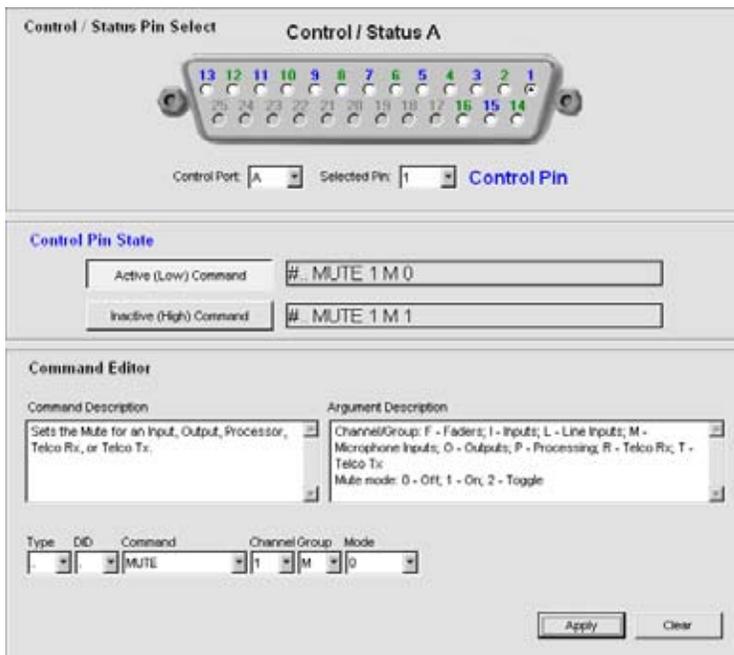


Fig.4

- The status pins follow the same format for the microphone LED to toggle properly. When the microphone is unmuted the LED is (green), when the microphone is muted the LED is off. (see fig. 5)

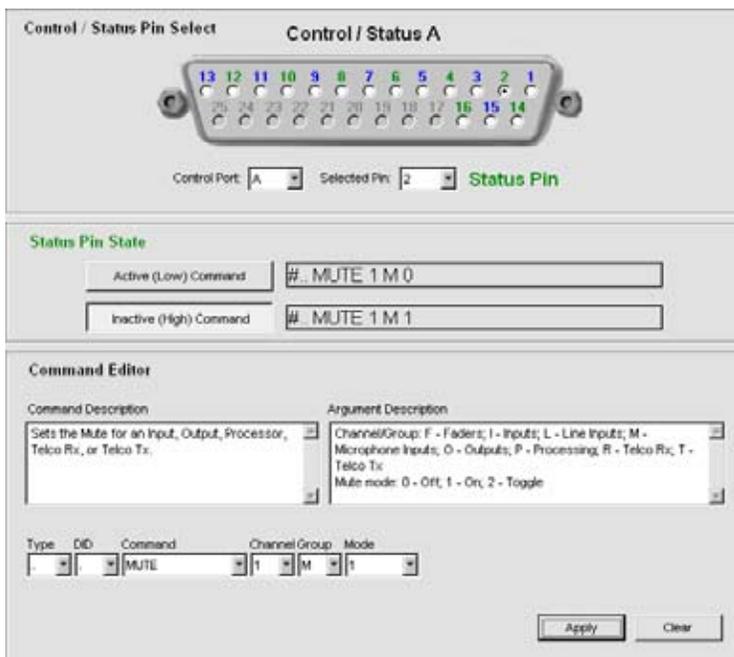


Fig.5

Note: When using the control pin for muting control do not use Push To Talk mode in the Converge Pro unit