

## APPLICATION NOTES

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## CONNECTING THE CLEARONE CONVERGE PRO TO A CISCO 7900 SERIES PHONE

### Purpose

This document describes how to connect the ClearOne Converge Pro to the Cisco 7900 series enterprise phone using the ClearOne CHAT Cisco phone breakout kit.

Available for the CHAT 150 is an accessory phone breakout kit that provides connectivity to the Cisco enterprise phone systems. The phone breakout kit can be used to interface the Converge Pro to the Cisco enterprise phone headset jack.

With this interface, the user gets the features and functions of the Cisco enterprise phone while conferencing.

### Connecting the Converge Pro to the Cisco 7900 Phone

To connect the CHAT 150 Cisco phone breakout kit to the Converge Pro you will need:

- CHAT 150 Cisco accessory kit, part number 860-156-220L
- Converge Pro unit with an available microphone input and line output
- Cisco 7900 series enterprise phone with a headset port

### Connecting the Converge Pro

Using the cables that came with the CHAT 150 Cisco phone breakout kit and the mini phoenix block connectors that came with the Converge Pro, modify the RJ45 cable and make the connections as shown in Figure 1.

- » **NOTE:** The power supply that came with the CHAT phone breakout accessory kit is not needed for this application.

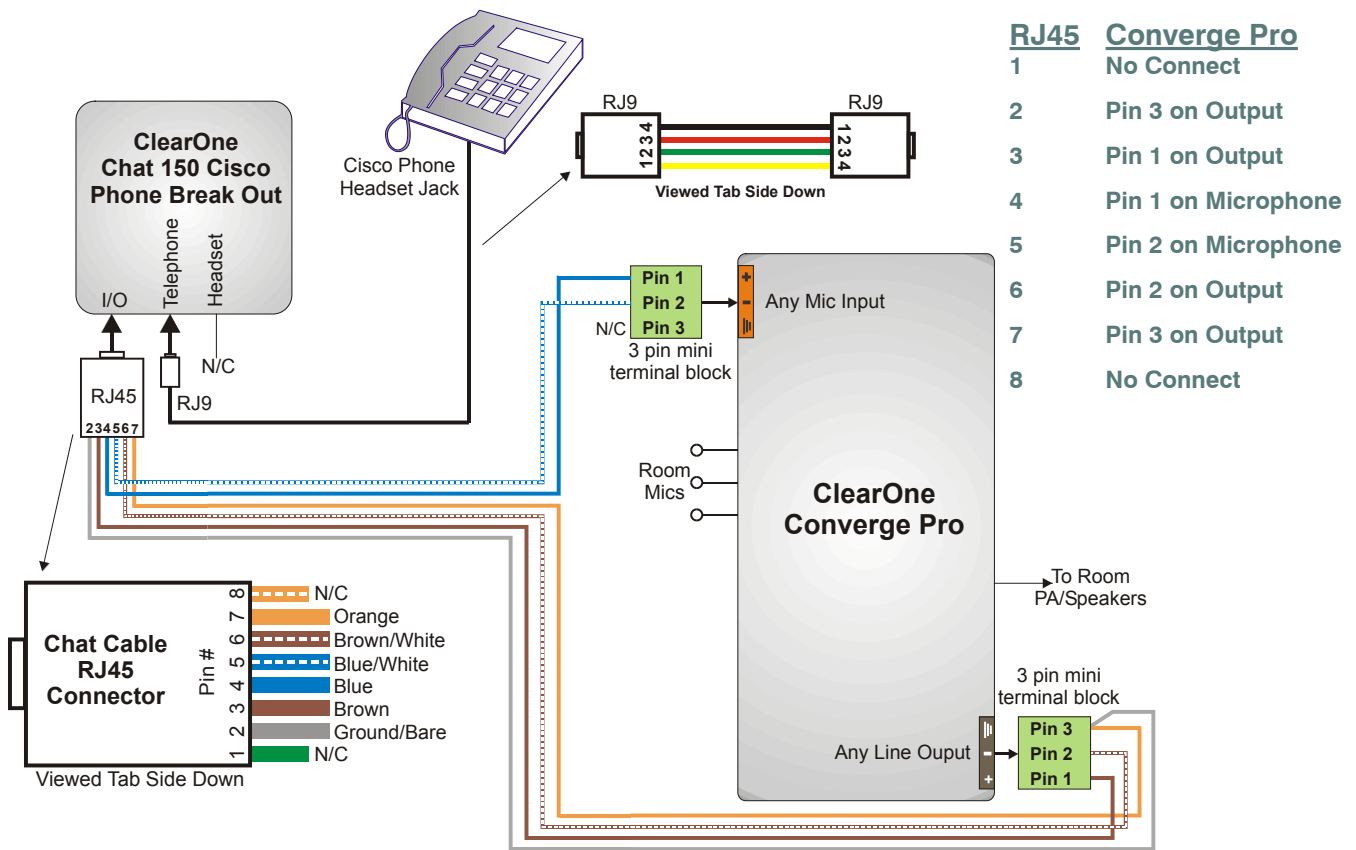


Figure 1

### Configuring the Converge Pro

The Cisco enterprise phone produces a line echo/side tone from the transmit audio to the receive audio that is not desirable in a conferencing application. Using a microphone channel with Acoustic Echo Cancellation (AEC) on the Converge Pro will eliminate this side tone. The following steps describe how to set up AEC and other required settings on the Converge Pro.

Connect to the Converge Pro using Converge Console and open the microphone channel view of the microphone connected to the CHAT phone breakout kit. The following settings, as shown in figures 2, 3, and 4 must be set:

- Click on the **PPWR** button to turn the Phantom Power off (Point 1 in Figure 2)
- Set the **Gain Course** slider to 28 dB (Point 2 in Figure 2)
- Set the **Gain Fine** slider to 0 dB (Point 3 in Figure 2)
- Set the **PA Adapt and AEC Reference** to the output connected to the CHAT phone breakout kit (Point 4 in Figure 2)

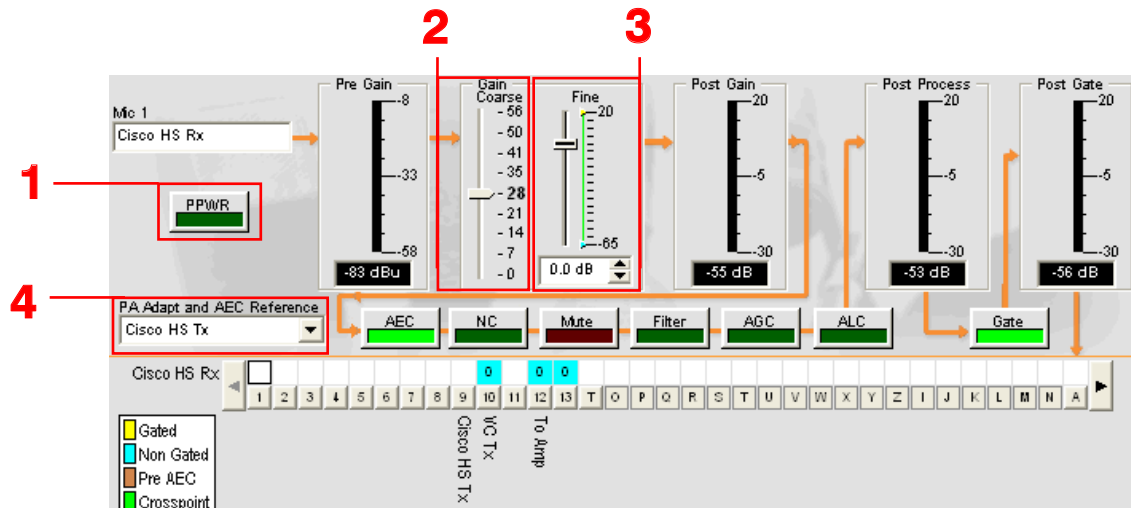


Figure 2

- Ensure the **AEC** tab is selected (Point 5 in Figure 3)
- Verify that the **Enable Acoustic Echo Canceller (AEC)** checkbox is checked. If it isn't, click on it to enable AEC (Point 6 in Figure 3)
- Set the Non-linear Processing (NLP) to Soft by selecting the **Soft** radio button (Point 7 in Figure 3)
- Click on the **Gating** tab (Point 8 in Figure 3)

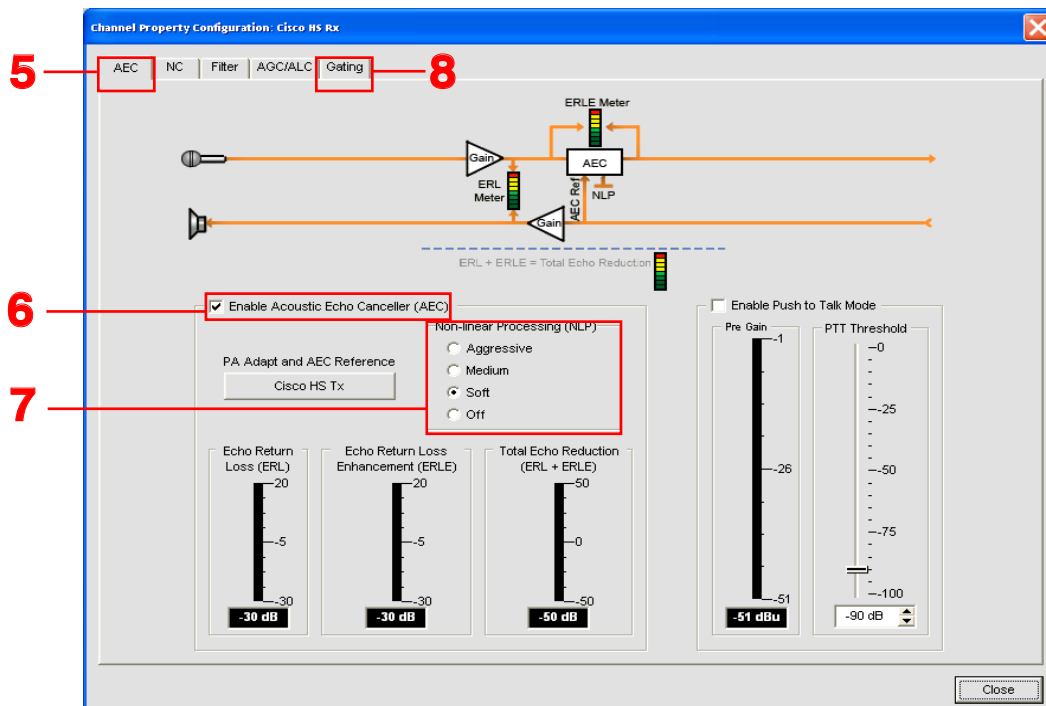
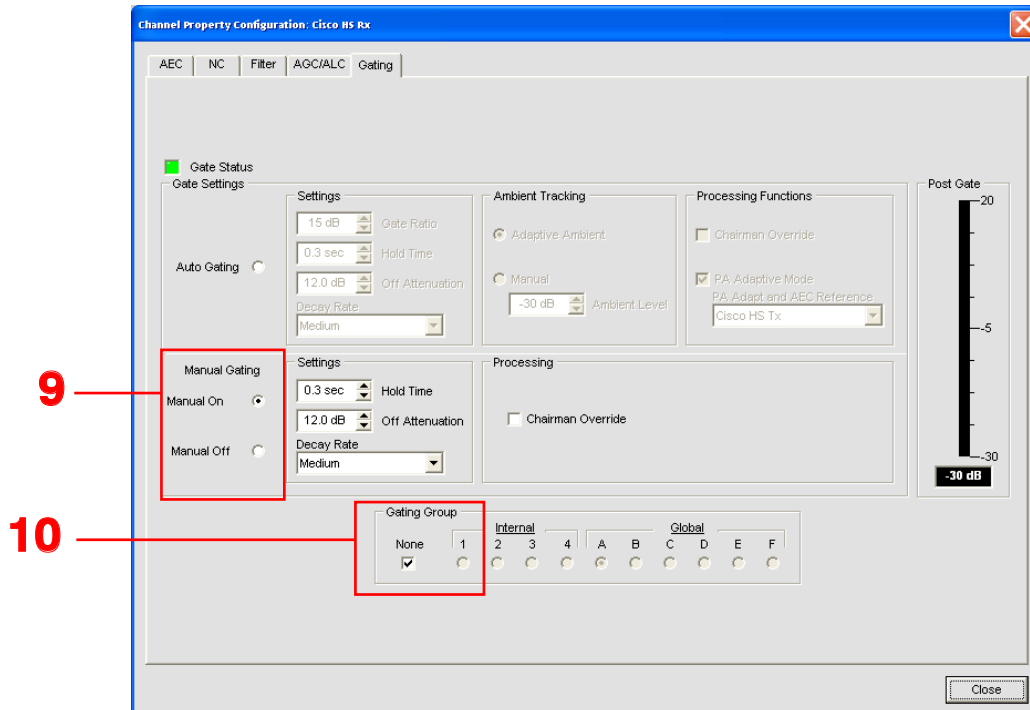


Figure 3

- In the **Manual Gating** section of the **Gating** tab window, click on the **Manual On** radio button to set the **Manual Gating** to **On** (Point 9 in Figure 4)

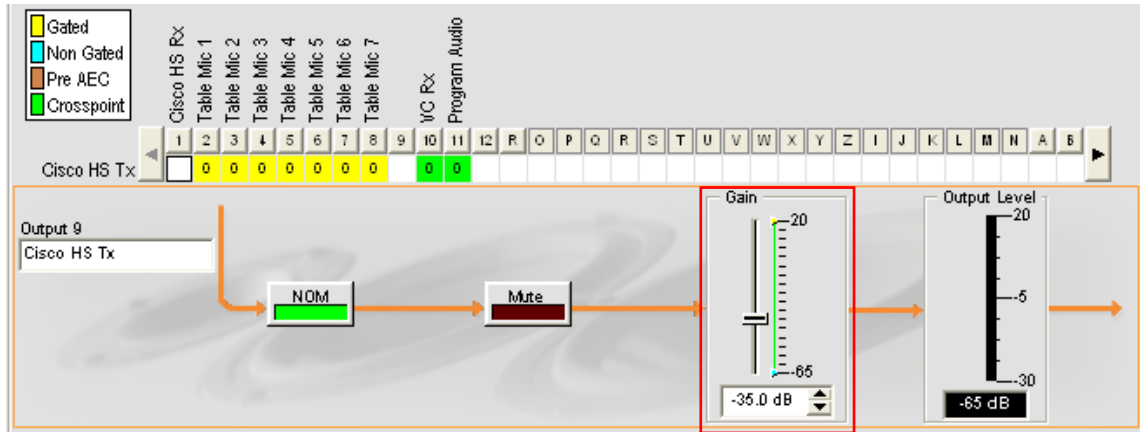


**Figure 4**

- In the **Gating Group** section of this window, ensure the **None** checkbox is checked. If it isn't, click in the checkbox to set the **Gating Group** option to **None** (Point 10 in Figure 4)
- Click on the **Close** button to exit the Gating Setup screen.

The Converge Pro output channel that is connected to the CHAT phone breakout kit also needs to be configured.

- Open the output channel view for the output of the Converge Pro connected to the CHAT phone breakout kit.
- Adjust the **Gain** slider to -35 dB. (Point 11 in Figure 5)



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Figure 5

When routing audio in the matrix from this microphone it is best to use a Non Gated (blue) cross point as is shown in Figure 2.

The Cisco phone can now be used as the phone interface for the conference room. To place a call that will be routed through the Converge Pro use the HEADSET button on the Cisco phone. To place a private call not routed through the Converge Pro, use the handset in normal operation.

- » **Note:** When using the HEADSET mode on the Cisco phone the speaker in the handset is still active but the microphone is muted. Also, the headset button and the LED on the CHAT phone breakout kit are non-functional in this application.

If you have any questions or need assistance with this application please contact ClearOne Technical Support at 1-800-283-5936 or [tech.support@ClearOne.com](mailto:tech.support@ClearOne.com)