

APPLICATION NOTES

CLEARONE DOCUMENT 801-000-013
(REVISION 1.0) April, 2010

CONNECTING TANDBERG C-SERIES TO A CLEARONE CONVERGE PRO

Purpose

The purpose of this document is to provide a set of instructions on connecting a Tandberg C-series Codec to the ClearOne Converge Pro device. The codec has two types of audio inputs: balanced XLR and unbalanced RCA. This document will describe both methods.

- » **NOTE:** This document was written using a ClearOne Converge Pro 880TA, firmware version 3.0.6.0, and a Tandberg C60 codec, firmware version TC3.0.0.211036.

This document applies to all versions of the Converge Pro family of products.

Connection Requirements

The following requirements must be met before proceeding:

- Familiarity with configuring a Converge Pro system using the Tandberg Audio Console application
- An understanding of configuring the gains on a Converge Pro system. A review sheet Application Note is available at:

http://www.clearone.com/docs/app_notes/801-151-801-06_Optimizing_Gain_Structure-Rev1.0.pdf

- The Tandberg Audio Console is installed on the computer being used for this configuration procedure. The console is available for download at:

<http://developer.tandberg.com/web/guest/tools/integrators/audio-console>

- An IP connection is established between the Tandberg codec and the computer being used for this configuration

- » **NOTE:** Configuration of the Converge Pro is too extensive to cover in this document. It is assumed that the reader is familiar with the set up and configuration of the ClearOne Converge Pro.

Connecting the Converge Pro

Once the routing and the gain structure are set in the Converge Pro, the system is now ready to connect the Converge Pro to the Tandberg Codec.

If connecting to the balanced XLR connector of the Tandberg, it will be necessary to make a male XLR to Mini-Phoenix audio cable (See Figure 1).

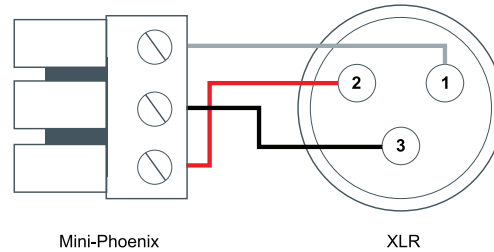


Figure 1

If the unbalanced RCA connector Line Input of the Tandberg is to be connected, it will be necessary to make an RCA to Mini-Phoenix connector (See Figure 2).

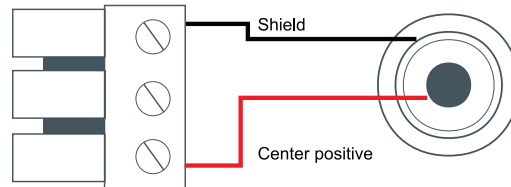


Figure 2

Connect the Mini-Phoenix connector to the output of the Converge Pro you have routed your microphones for video conferencing. Connect either the XLR connector to the microphone input of the Tandberg Codec or the RCA connector to the Line input of the Tandberg Codec. In this document, Microphone Input 1 and Line Input 1 of the Tandberg Codec are being used.

It will also be necessary to make a cable to connect the Line Output of the Tandberg Codec to the Line Input of the Converge Pro (See Figure 3). Line Output 1 of the Tandberg was used for this document.

The jumper cable is tying the negative and ground connection of the Line Input together to reduce any noise that may be introduced from the cabling.

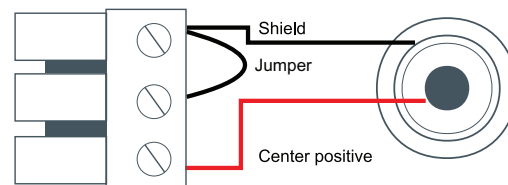


Figure 3

Configuring the Tandberg Codec

Connect to the Codec with the Tandberg Audio Console software.

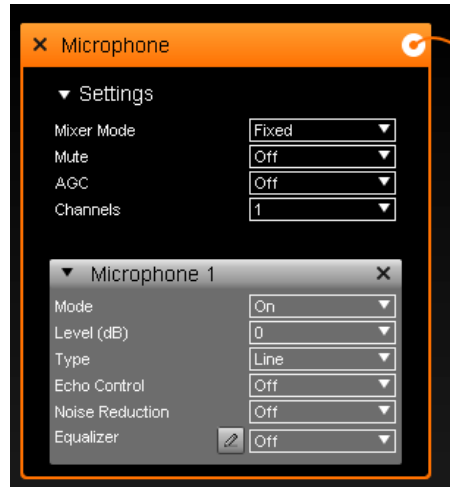
Once you are connected, turn off all processing on the inputs and outputs of the Codec.

If using the Microphone (XLR) input you will have to click on the carrot (▶) next to Settings and Microphone 1 to expand the Microphone Input configuration menu (See Figure 4).

Set all Settings and Microphone configurations exactly as shown in Figure 4.

Settings

- Mixer Mode: Fixed
- Mute: Off
- AGC: Off
- Channels: 1



Microphone 1 Settings

- Mode: On
- Level (dB): 0
- Type: Line
- Echo Control: Off
- Noise Reduction: Off
- Equalizer: Off

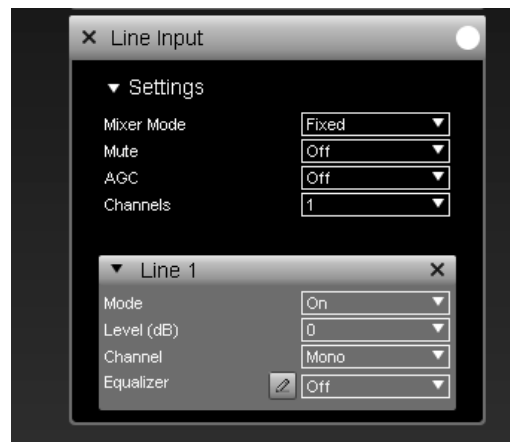
Figure 4

If using the Line Input, click on the carrot (▶) next to Settings and Line 1 to expand the Line Input configuration menu.

Set all Settings and Line 1 configurations as seen in Figure 5.

Line Input Settings

- Mixer Mode: Fixed
- Mute: Off
- AGC: Off
- Channels: 1



Line 1 Settings

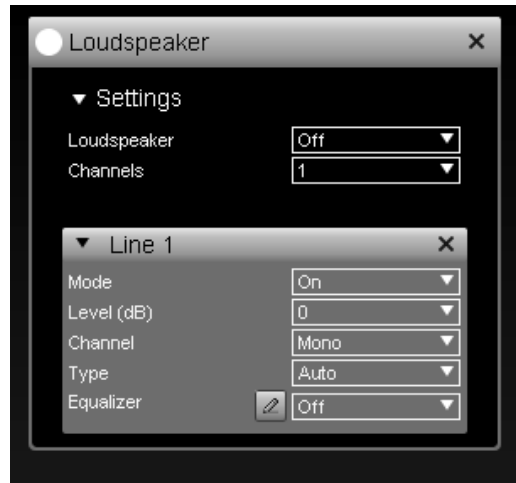
- Mode: On
- Level (dB): 0
- Channel: Mono
- Equalizer: Off

Figure 5

To access the Loudspeaker and Line 1 configuration menu, click on the carrot (►) next to Settings and Line 1. Set all Loudspeaker and Line 1 settings as seen in figure 6.

Settings

- Loudspeaker: Off
- Channels: 1



Line 1 Settings

- Mode: On
- Level (dB): 0
- Channel: Mono
- Type: Auto
- Equalizer: Off

Figure 6

Once all of this processing has been turned off, place a video call and fine-tune the gain settings of the Converge Pro inputs and outputs.

Refer to the following application note:

http://www.clearone.com/docs/app_notes/801-151-801-06_Optimizing_Gain_Structure-Rev1.0.pdf

When the video connection has been established, you will notice two more connections show up in your Tandberg Audio Console. These are virtual connections depicting the input from the far end and the output feeding the far end.

There is only one setting to verify and that is the AGC on the Remote Input. Set this to Off as displayed in Figure 7.

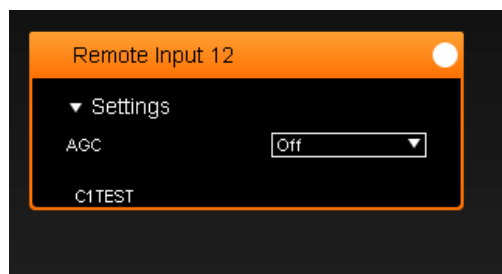


Figure 7

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.