# ClearOne.

## CONVERGE® Pro 2 USB Expander unit

A USB audio interface device for CONVERGE® Pro 2

# Quick-Start Guide



# **Table of Contents**

CONVERGE PRO 2 USB EXPANDER 1
UNPACKING         1           PARTS INCLUDED         1           PARTS NOT INCLUDED         1           Tools Required         2
QUICK-START OVERVIEW2
MOUNT THE USB EXPANDER         3           RACK SHELF MOUNTING         3           MOUNTING UNDER THE TABLE         4           MOUNTING ON THE WALL         5           MOUNTING ABOVE THE CEILING         5
CONNECTIONS         6           BACK PANEL         7           FRONT PANEL         8
CONFIGURE THE USB EXPANDER9
PART NUMBERS10
CONTACT INFORMATION10

Congratulations on purchasing your USB Expander.

The CP2 USB expander is a flexible, easy-to-use USB audio interface for CP2 units that gives you an additional audio USB port with 2 x 2 audio channels in compact form. It is designed specifically for CP2 DSP Mixers.

**IMPORTANT:** The CP2 USB expander can only be used only with CONVERGE Pro 2 systems. It is not compatible with first generation CONVERGE Pro.

## UNPACKING

#### PARTS INCLUDED

The following items are included with the CP2 USB Expander:

- CP2 USB Expander Unit
- 1 Qty 3.81mm Terminal Block Connector, 3 Position (Orange) for RS-232 connection.
- 1 USB Cable, Type A to Type B, 6 Ft (1.8M) for USB (Audio) connection.



#### PARTS NOT INCLUDED

**NOTE:** Installer is responsible for ensuring CP2 expander is firmly attached to sturdy support that holds weight of expander unit and mounting hardware.

The following parts are not included with the CP2 USB Expander:





4 Qty
Wall fasteners appropriate to the wall/ceiling material

## Tools Required

The following tools are required to install the USB expander:



## QUICK-START OVERVIEW

Perform these steps in the following order to use the USB Expander in your CP2 system:

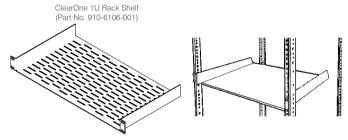
- 1. Mount the USB Expander. (Optional)
- 2. Connect the USB Expander.
- 3. Configure the USB Expander.

## MOUNT THE USB EXPANDER

The USB expander can be mounted in 1) a rack shelf, 2) under the table, 3) on the wall, 4) above the ceiling. Each mounting type is explained below. Mounting hardware is not provided.

#### RACK SHELF MOUNTING

ClearOne offers a standard 1U rack shelf with 20lb (9kg) weight capacity.



- Determine location for rack shelf.
- Align mounting holes on rack shelf mounting ears with holes on the rack (at determined location).
- 3. Insert the four #10-32 screws included with the ClearOne 1U rack shelf (or proper screws for your 3<sup>rd</sup>-party mount) and tighten.

**NOTE:** Remove pre-installed mounting ears on expander to fit up to 3 expander units side-by-side on a single ClearOne 1U rack shelf.

 Torx drive screws secure the pre-installed mounting ears to the main body of the expander unit. Remove them with a Torx T15 screwdriver. (optional)

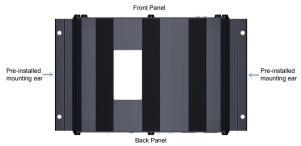
Secure expander unit(s) to the rack shelf. You must supply your own hardware (four #6 or M3.5 screws) for securing the expander(s).



### MOUNTING UNDER THE TABLE

Mounting hardware is not provided. Select your own hardware based on your specific installation needs.

- Determine location for the mount
- Using expander as a guide (and level if needed), mark four mounting hole locations with a pencil.
- Determine proper depth and diameter, and drill four pilot holes for the #6 or M3.5 screws.



4

#### QUICK-START GUIDE

- 4. Align mounting holes on expander mounting ears with pilot holes.
- 5. Insert four #6 or M3.5 screws and tighten.

## MOUNTING ON THE WALL

Mounting hardware is not provided. Select your own hardware based on your specific installation needs.

- Determine location for the mount.
- Using expander as a guide (and level if needed), mark four mounting hole locations with a pencil.
- 3. Drill four pilot holes for fasteners/anchors using proper size drill bits.
- Install fasteners/anchors.
- 5. Align mounting holes on expander mounting ears with pilot holes.
- 6. Insert four #6 or M3.5 screws and tighten.

**NOTE:** Anchors and screws used to mount the expander are not provided and must be selected by installer for the type of wall material supporting the expander. Take care while drilling and installing anchors so wall material does not tear out and weaken attachment.

#### MOUNTING ABOVE THE CEILING

Mounting hardware is not provided. Select your own hardware based on your specific installation needs.

**NOTE:** It is the installer's responsibility to ensure that the installation and cable routing complies with local safety codes.

 Determine location for the mount, and where to route cables. Mark location where you want to route cables through with a pencil (on finished side of ceiling tile) if you need to cut a hole.

- 2. Remove affected ceiling tile and adjacent tiles required for access.
- 3. Install fasteners/anchors.
- 4. Install expander unit at determined location.
- Use drywall saw to cut hole into finished side of ceiling tile at marked location.
- 6. Route the cables through the hole.

**NOTE:** Carefully run connected cables so they do not block the cooling vents or put strain on the connectors.

**NOTE:** Anchors and screws used to mount the expander are not provided and must be selected by installer for the type of ceiling material supporting the expander. Take care while drilling and installing anchors so ceiling material does not tear out and weaken attachment.

## **CONNECTIONS**

Connect the USB expander to:

- Peripheral Link (P-Link) In or Power-over-Ethernet (PoE) power injector with a CAT5e or CAT6 cable,
- A laptop/PC/MAC, other audio devices, or VC codec with the Audio USB port via the Type A to Type B USB cable,
- A remote control serial device (such as ClearOne's Touch Panel Controller, or any 3<sup>rd</sup>-party controller) with the RS232 port via the 3 Position Terminal Block Plug 3.81mm GY connector.

#### **QUICK-START GUIDE**

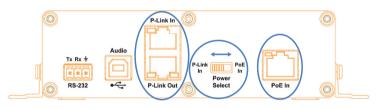
#### BACK PANEL

The CP2 USB Expander can be powered by a standard PoE injector, or a P-Link connection

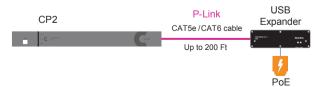
Set the Power Select switch towards P-Link In or PoE In based on the power source.

The P-Link In and Out ports enable you to connect with a CP2 unit or other P-Link devices. P-Link connections carry power, control, and audio through CAT5e or CAT6 cable.

When not supplying power to an expander via a P-Link connection, power an expander via PoE by connecting a PoE Power Injector to the PoE In port.



USB Expander Powered by PoE



USB Expander Powered by P-Link



## FRONT PANEL

#### **Power LED**

Off - not powered Solid Blue - powered

#### Status LED

Off - No P-Link plugged in

Solid Blue - P-Link plugged in and system working normally

Flashing Blue - Locate mode initiated from CP2 Console Software Red - Error condition



Detailed instructions on using the Locate function in the CP2 CONSOLE software can be found in the CONVERGE Pro 2 CONSOLE User Manual at: http://www.clearone.com/resources#professional\_audio

#### QUICK-START GUIDE

## CONFIGURE THE USB EXPANDER

CONVERGE Pro 2 CONSOLE software is required for configuring CP2 and expander units.

The CP2 CONSOLE uses auto-discovery when in online mode to help identify and list the expanders under the P-Link Devices section. Expander ports function and respond exactly as the ports directly on the CP2 unit.

Phases of the software setup include:

- Create a new or open an existing project
- Add a CP2 and peripheral devices to a project
- Configure stack/device settings
- Configure and manage Room (Space) settings
  - Add USB to rooms where necessary
- Creating and managing Room Partition settings
  - Configure USB Transmit and Receive channel settings
- Configure gating settings for microphones
- View project file status
- Send the configurations

The steps in these processes are detailed in the CONVERGE Pro 2 CONSOLE User Manual at:

http://www.clearone.com/resources#professional audio

## **PART NUMBERS**

910-3200-302	CONVERGE Pro 2 USB Expander
910-3200-301	CONVERGE Pro 2 GPIO Expander
910-3200-202	PoE+ Power Supply Kit for 3 devices
910-001-004	PoE Power Supply for 1 device
910-6106-001	1U Universal Rack-Shelf
910-3200-204-50	50 Ft RJ45 CAT6 Cable
910-3200-204-100	100 Ft RJ45 CAT6 Cable
910-3200-204-150	150 Ft RJ45 CAT6 Cable
910-3200-204-200	200 Ft RJ45 CAT6 Cable

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