

# CONVERGE™ | 560/590

## Professional Conferencing Systems

**ClearOne**

An easy-to-use conferencing system with flexible microphone and speaker options. Converge 560 and 590 deliver exceptional audio conferencing quality and value at a price point far superior to the competition. Customizable microphone and speaker options, plus the ability to connect to rich-media systems, allow great flexibility in a wide variety of medium-sized room applications.



PROFESSIONAL  
CONFERRING  
AT AN  
AFFORDABLE  
PRICE

### APPLICATIONS

- Semi-customized Board Rooms
- Multimedia Conference Rooms
  - + Video conferencing
  - + Web conferencing
- Distance Learning Rooms
- Classrooms with Video Conferencing
- Deposition & Hearing Rooms

### ADVANTAGES

#### Superior Audio Performance

- + Full-duplex sound enables participants to speak and listen at the same time without cutting in and out
- + ClearEffect™ provides natural, full-sounding audio without requiring wideband on both ends
- + Distributed Echo Cancellation® effectively eliminates echo
- + Noise cancellation removes background noises from fans or HVAC systems
- + Automatic level controls keep participants' audio balanced and consistent
- + First-mic priority eliminates hollow "tunnel" sound by activating only the microphone closest to the person speaking
- + Ability to add 3rd-party microphones allows flexibility in designing optimal room coverage
- + Local sound distribution (single speaker zone) allows amplification of presenter's voice in near-end room

#### Rich Media Ready

- + Interfaces with any video or web conferencing system, providing superior audio pickup
- + Camera voice tracking capability allows six or nine camera presets for pan/tilt/zoom in video conferencing applications
- + Recording option allows crystal-clear capture of both sides of conversation, useful particularly in courtroom environments

#### Ease of Use and Installation

- + Dial pad resembles a standard phone
- + Built-in web server enables remote access
- + Configuration & device management software provides simple user interface for system configuration and operation
- + Microphone distribution boxes contain three industry-standard XLR microphone connectors for flexibility in using 3rd-party microphone solutions
- + Internal 10-watt amplifier drives speaker configuration of choice; external amplifier and speakers can also be added

#### Flexibility

- + Place mixer on tabletop, credenza, or in rack
- + Mic distribution boxes can be rack mounted or strategically positioned throughout the room to minimize microphone cable runs
- + Wireless or wired controller option

HDCConference™

## > components



### AUDIO MIXER

Provides advanced audio processing for superior sound quality. Can be placed on a tabletop, credenza, or in a standard equipment rack.

- + ClearOne audio technologies: Distributed Echo Cancellation®, Noise Cancellation, First Mic Priority, Look-Ahead Gating, ClearEffect™, Adaptive Modeling, Chairman Override Mode
- + Single speaker zone sound distribution allows amplification of presenter's voice in near-end room
- + Camera control: Camera presets triggered by microphone activation with video conferencing



### TABLETOP CONTROLLER

Wireless or wired controller provides intuitive interface that emulates a telephone keypad. Converge 560/590 also available without controller included, so system can be used with 3rd party control systems such as AMX or Crestron.



### RACK KIT

Allows microphone distribution boxes to be mounted in a standard equipment rack.



### MICROPHONE DISTRIBUTION BOX

Converge 560 - two boxes. Converge 590 - three boxes. Each box contains three industry-standard XLR microphone connectors. Boxes are daisy-chained from mixer using standard RJ-45 cables. Boxes can be rack-mounted with mixer or strategically positioned throughout room to minimize microphone cable runs.



### CONFIGURATION & DEVICE MANAGEMENT SOFTWARE

Customize the audio settings and configure system via the built-in USB or Ethernet connection with drag-and-drop user interface.

- + Device Toolbox: Pre-configured audio settings for common auxiliary devices, such as video codecs and microphones
- + System Check: Verify Converge 560/590 components
- + Event Logging: Track system events
- + Network Find: Connect to other Converge 560/590 units
- + Firmware Upgrades: Update system remotely

## > SPECIFICATIONS

### AUDIO PERFORMANCE

Conditions: Unless otherwise specified, all measurements are performed with a 22 Hz to 15 kHz BW limit (no weighting)

#### Audio Mixer

AEC tail time: 128 ms  
Adaptive noise cancellation: (6 – 18 dB)  
Gating: Adaptive ambient, 1st mic priority, look-ahead gating, NOM attenuation  
Audio bandwidth: 16 kHz with videoconferencing or other full-band networks

#### Microphone Distribution Box

Connection: Female XLR  
Maximum Distance from Audio Mixer to Last Mic Box: 60 ft.  
Maximum Level: +17 dBu  
Frequency Response: 20 Hz to 14 kHz  
THD+N: < 0.01% (+14 dBu input @1 kHz)  
Phantom Power: 24 V selectable  
Impedance: 5 kOhm

#### Line Input

Connection: Unbalanced RCA  
Gain: -10 dBu nominal, adjustable from -14 dB to +18 dB  
Nominal Level: -10 dBu  
Maximum Level: +9 dBu  
Impedance: > 10 kOhm

#### Line Output

Connection: Unbalanced RCA  
Nominal Level: -10 dBu, adjustable from -14 dB to +18 dB  
Maximum Level: +9 dBu  
Frequency Response: 40 Hz – 15 kHz (+/- 1 dB)  
Dynamic Range: > 80 dB  
THD+N: < 0.02% (+6 dBu input @ 1 kHz)

#### Playback/Record Input

Connection: Unbalanced RCA  
Gain: -10 dBu nominal, adjustable from -14 dB to +18 dB  
Nominal Level: -10 dBu  
Maximum Level: +9 dBu  
Impedance: > 10 kOhm

#### Playback/Record Output

Connection: Unbalanced RCA  
Nominal Level: -10 dBu, adjustable from -14 dB to +18 dB  
Maximum Level: +9 dBu  
Frequency Response: 40 Hz – 15 kHz (+/- 1 dB)  
Dynamic Range: > 80 dB  
THD+N: < 0.02% (+6 dBu input @1 kHz)

#### Amplifier Output

Connection: Left and right push terminals  
Power: 10 Watts into 8 Ohm load  
Impedance: 8 Ohm  
Frequency Response: 60 Hz – 15 kHz (+/- 1 dB)  
Dynamic Range: > 80 dB  
THD+N: < 0.5% (+5 dBu line input @ 1 kHz)  
Output Level: 90 dB SPL output @ 1 meter

### TELEPHONE INTERFACE

Conditions: All measurements taken with ALC disabled.

Connection: RJ-11 (Set and Line jacks)  
Tail Time: 30 ms  
Frequency Response: 250 Hz to 3.3 kHz (+/- 1 dB)  
THD+N: < 0.2% (+7 dBu line input @1 kHz)  
Dynamic Range: > 60 dB

#### RS-232 Control Port

DB9 female  
9,600/19,200/38,400/57,600 (default)/115,200  
Baud rate: 8 bits, 1 stop, no parity  
Hardware flow control on (default)/off

#### Communication I/O

10/100 Ethernet Control Port:  
RJ-45 with LED indicators for link, duplex and activity status.

#### USB 1.1 Configuration Port

Slave port

#### Power Supply

Primary Voltage: 100 to 240 VAC  
Auto-Sensing, 50-60 Hz

#### VISCA Camera Port

DIN, 9600 baud, no Flow Control

### Dimensions (W x D x H)

Mixer: 17" x 7.5" x 2"  
(43.2 cm x 19.1 cm x 5.1 cm)  
Controller: 10.5" x 4.5" x 2.75"  
(26.7 cm x 11.4 cm x 6.9 cm)  
Mic Box: 4.7" x 5.6" x 1.7"  
(11.9 cm x 14.3 cm x 4.4 cm)

### Weight

Mixer: 4.5 lb (2 kg)  
Controller: 2.0 lb (.9 kg)  
Mic Box: 1.5 lb (.7 kg)

### Environmental

Operating Temp: 32-122° F (0-50° C)

### Optional Accessories

Go to [www.clearone.com](http://www.clearone.com) to find out more regarding other conferencing products:  
Remote Antenna  
Microphones  
Roll-About Carts

### Part Numbers

910-153-566 Converge 560 with no controller  
910-153-560 Converge 560 with wireless controller  
910-153-565 Converge 560 with wired controller  
910-153-596 Converge 590 with no controller  
910-153-590 Converge 590 with wireless controller  
910-153-595 Converge 590 with wired controller  
910-153-050 Converge Remote Antenna Accessory Kit

Call 1-801-974-3641 or visit [www.clearone.com](http://www.clearone.com) for international part numbers.



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