

Converge™ Pro

Converge™ Pro 840T Professional Conferencing System

The successor to the industry-leading XAP 400. Leveraging the rich functionality of the flagship Converge™ Pro 880, the new 840T includes a built-in telephone interface and power amplifier for standalone conferencing capabilities. It also provides expansion capability with other Converge™ Pro mixers for complex installations.

ClearOne.



LEADING AUDIO
CONFERRING
SOLUTION FOR
PROFESSIONAL
INSTALLATIONS

CONVERGE™ PRO 840T APPLICATIONS

- Conference Rooms
- Boardrooms
- Courtrooms
- Distance Learning Facilities
- Convention Centers and Hotels
- Training Rooms
- Telemedicine Facilities
- Houses of Worship

CONVERGE™ PRO 840T ADVANTAGES

Advanced Conferencing Feature Set

- + Next-generation Acoustical Echo Cancellation
 - > Improved duplex performance
 - > Push-to-talk microphone compatibility
- + Next-generation Noise Cancellation
 - > Adaptive modeling to room ambient noise condition
- + Increased resolution on Microphone Preamp stage
 - > 0-56 dB in 7 dB increments
- + Pre-AEC routing for Sound Reinforcement Applications
 - > Maximum of 4 millisecond processing delay
- + Management Improvements
 - > Integrated Ethernet and USB connections
 - > SNMP and HTML remote management agents
 - > Event scheduler
 - > Diagnostic console
- + Simplified Configuration Software
 - > Drag & drop A/V and channel objects
 - > Selectable views—unit, matrix, channel
- + Expanded Serial Command List

Superior Audio Performance

- + Next-generation Distributed Echo Cancellation® on every mic input
- + First-mic priority delivers clear audio to the far end
- + 20 Hz-20 kHz bandwidth for full-range audio response
- + ALC & AGC keep participants' audio balanced and consistent

Configuration Flexibility

- + Scalable – link multiple Converge Pro units (880, 840T, 8i, TH20) for extensive microphone coverage and up to 16 phone lines
- + Enhanced expansion bus, featuring 12 mix-minus audio buses for routing between units
- + Eight mic gating groups (four internal & four global) allow separation of mics into individual mixer gating groups for greater configuration flexibility
- + 32 presets can be executed on-the-fly without disturbing other ongoing preset operations
- + 255 Macros for customized audio control/configuration with single command execution

Conferencing Capability

- + Built-in telephone interface and power amplifier
- + Link with multiple Converge Pro TH20s for up to 16-line capability
- + Also link to Converge Pro 880 or 8i for additional inputs and outputs

PRELIMINARY

> CONVERGE™ PRO 840T BACK PANEL



> SPECIFICATIONS



Audio Performance

Conditions: Unless otherwise specified, all measurements are performed with a 20 Hz to 20 kHz BW limit (no weighting)
 Frequency Response: 20 Hz to 20 kHz ±1 dB
 Noise (EIN): -126 dBu, 20 kHz BW, max gain, Rs=150 Ω
 THD+N: <0.02%
 Dynamic Range: 100 dB (A-weighted)
 Crosstalk <-91 dB re 20 dBu @ 20 kHz channel to channel

Auto Mixer Parameters

Number of Open Microphones (NOM)
 PA Adaptive Mode
 First Mic Priority Mode
 Last Mic Mode
 Maximum # of Mics Mode
 Ambient Level
 Gate Threshold Adjust
 Off Attenuation Adjust
 Hold Time
 Decay Rate

Matrix Mixing Parameters

29x30 matrix
 8 analog in/out
 1 speaker (amplified) out
 12 expansion bus in/out
 4 assignable processing blocks in/out
 4 assignable fader blocks in/out
 1 telco in/out

Assignable Processing Blocks

Filters:
 All pass
 Low pass
 High pass
 Low shelving
 High shelving
 Parametric EQ
 Notch
 CD Horn
 Crossovers:
 Bessel
 Butterworth
 Linkwitz-Riley
 Compressor; adjustable
 Delay; adjustable up to 250 ms

Assignable Fader Blocks

Gain/Mute

Microphone Input Configuration

Input Gain Adjust
 Mic or Line Level
 Phantom Power on/off
 Echo Cancellation on/off
 Noise Cancellation on/off
 Filters



All Pass
 Low Pass
 High Pass
 Notch
 PEQ

Mute on/off
 Chairman Override on/off
 AGC on/off
 Automatic Level Control on/off
 Auto Gate/Manual gate
 Adaptive Ambient on/off
 Pre AEC channel

Mic/Line Inputs 1-4

Push-on mini-terminal block, balanced, bridging
 Impedance: 5 kΩ
 Nominal Level: adjustable -56 dBu to 0 dBu (7 dB steps)
 Maximum Level: -65 dBu to +20 dBu
 Echo Cancellation: 130 ms tail time (works with 12 dB of room gain)
 Noise Cancellation: 6-15 dB attenuation
 Phantom Power: 24 V, selectable

Line Inputs 5-8

Push-on mini-terminal block, balanced, bridging
 Impedance: >10 kΩ
 Nominal Level: 0 dBu
 Maximum Level: 20 dBu

Outputs 1-8

Push-on mini-terminal block, balanced
 Impedance: 50 Ω
 Nominal Level: 0 dBu
 Maximum Level: 20 dBu

Amplifier Output

Binding Post Connection
 10 Watts into 8 ohm load
 THD + Noise: <0.5%

Telco Line

RJ-11
 POTS (plain old telephone service) or analog extension from a PBX
 A-lead supervision provided

Telco Set

RJ-11
 Connect analog telephone set
 A-lead supervision provided

Telephone Audio Performance

Conditions: Unless otherwise specified, all measurements are performed with ALC disabled, referenced @ -15 dBm on/off the telephone line
 Frequency Response: 250 Hz to 3.3 kHz ±1 dB
 THD+N: <0.2%, 250 Hz to 3.3 kHz
 SNR: >62 dB re max level

Telephone Echo Cancellation

Tail Time: 31 ms
 Null: >55 dB

Telephone Noise Cancellation

Noise Cancellation: 6-15 dB attenuation

Expansion Bus In/Out

Proprietary Network
 RJ-45 (2), 115.2 kbps, 110 kΩ impedance
 Category five twisted-pair cable 100' maximum cable length between any two Converge Pro products

Ethernet

10/100 Ethernet Network Port
 10/100 Ethernet PC Port
 RJ-45 Connectors

RS-232

Serial Command Protocol Only (Console Configuration application not supported on RS-232 port)
 DB-9 female
 9,600/19,200/38,400/57,600/115,200 baud rate;
 8 bits, 1 stop, no parity
 Hardware flow control on (default)/off

USB

Version 2.0 Compatible
 Type: B-connector

Control/Status

DB-25 female A/B (2)
 Inputs A/B: active low (pull to ground)
 Outputs A/B: open collector, 40 VDC max, 40 mA each
 +5 VDC pins (2) (300 mA over-current protected)

Set-up Software

Converge Console™



Power Input Range

Auto-adjusting
 100-240 VAC; 50/60 Hz

Power Consumption

TBD

Dimensions (L x D x H)

17.25" x 10.25" x 1.75"
 43.8 x 26 x 4.5 cm

Weight

TBD dry
 TBD shipping

Operating Temperature

32 to 100° F/0 to 38° C

Approvals

Pending

Optional Accessories

Converge Pro 880
 Converge Pro 8I
 Converge Pro TH20
 Tabletop Controller
 Button Microphone - Omni-Directional
 Button Microphone - Uni-Directional
 Delta Microphone
 Tabletop Microphone - Uni-Directional
 JBL Wall-Mount Speakers

Part Number

910-151-840 Converge Pro 840T - 4-channel Microphone Mixer with built-in telephone hybrid amplifier

PRELIMINARY

> CLEARONE LOCATIONS

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