



XAP™ 800 Audio Conferencing System

ClearOne's XAP™ 800 takes the revolutionary AP800 to the next level of functionality and becomes the new standard of audio conferencing performance.

The XAP 800 features ClearOne's proprietary Distributed Echo Cancellation® and noise cancellation technology for dramatically reduced echo and noise; a proven software architecture for easy, reliable configuration; a 32x32 matrix with level control (in .5dB steps) at each cross point to simplify complex mixing operations; and 20Hz–20kHz bandwidth for full-range audio response.

The XAP 800's Distributed Echo Cancellation features 130ms of tail time, which provides highly effective echo cancellation while keeping reaction time short and additional noise from being created. A tail time of 130ms optimizes echo cancellation in the majority of room scenarios.

Basic functions such as volume and source selection can be controlled remotely with the optional ClearOne Control Panel. It's available in two models—the Volume Control and Select Control—for flexible, seamless operation.

The XAP 800 can also be controlled via proven, reliable G-Ware™ software architecture, RS-232 port, presets, macros, logic in/out, and contact closure.



The XAP 800 features Distributed Echo Cancellation on each mic input.

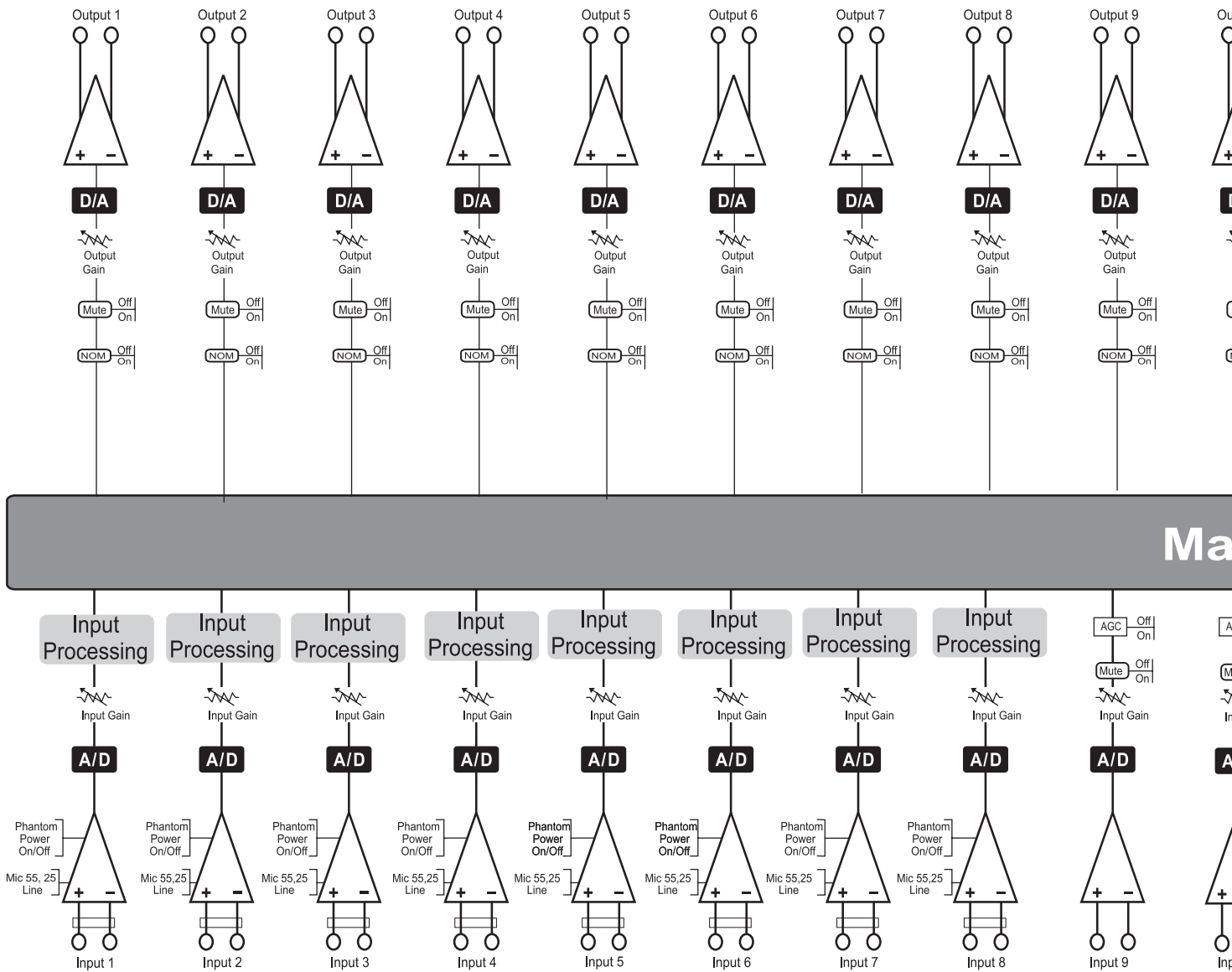
Features and Benefits

- Noise cancellation on each mic/line input provides up to 15dB of noise attenuation
- Distributed Echo Cancellation places an echo canceller on every mic input
- Four virtual EC references are provided which can use multiple signals as the echo cancellation reference point without sacrificing an analog output
- Enhanced expansion bus, featuring 12 bi-directional audio buses
- Linkable—eight units can be linked for a total of 64 microphones
- Labels for all inputs, outputs, macros, and presets are saved within the unit
- Four input filters on each of eight mic inputs. Programmable as parametric EQ, notch, all pass, low pass, and high pass
- Eight independent processing blocks, each with 15 filters; delay; and compressors to provide pinpoint audio configuration
- Four internal and four global mic mixers, each with parameter adjustments
- Front panel control of gain and mute
- 32 presets that can be executed on-the-fly without disturbing other ongoing preset operations
- Macro Pro scripting language simplifies macro creation with point-and-click convenience
- RAMP serial command for greater control over gain adjustments
- Clear Matrix button makes it easy to clear cross points
- Adjustable minimum and maximum gain levels for each input, output, and processor to control the range of gain
- Links to the XAP TH2 for teleconferencing capability

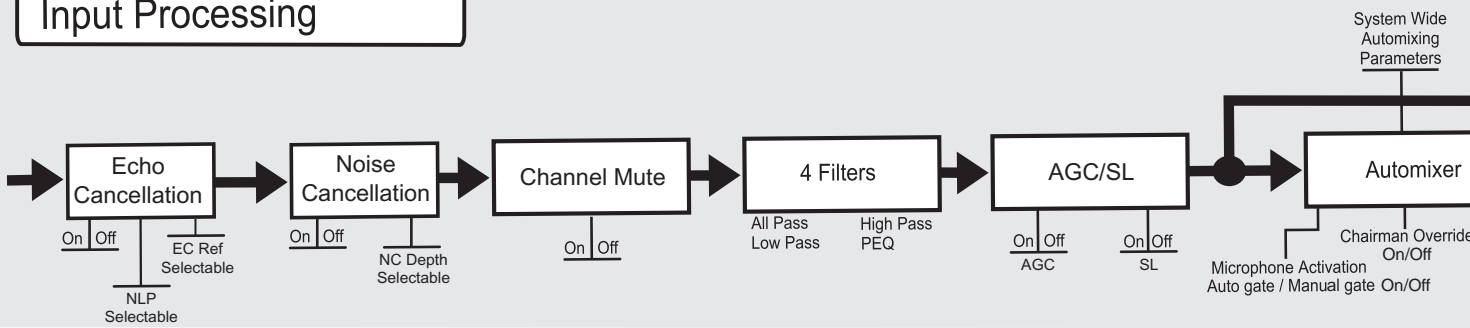
Applications

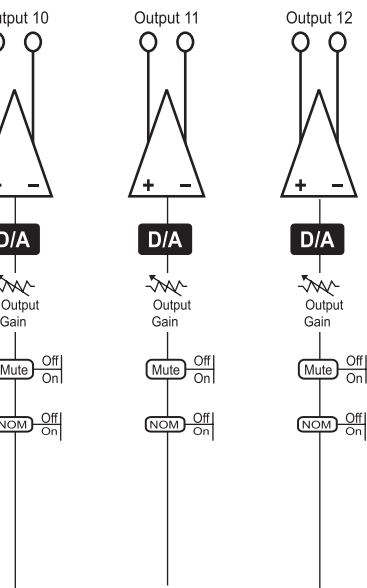
- Conference Rooms
- Boardrooms
- Courtrooms
- Distance Learning
- Teletraining
- Telemedicine
- Hotels
- Houses of Worship

The XAP 800 is manufactured and marketed by ClearOne, formerly Gentner.

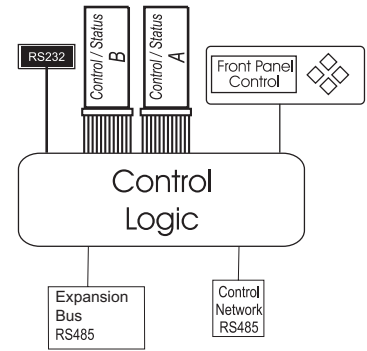
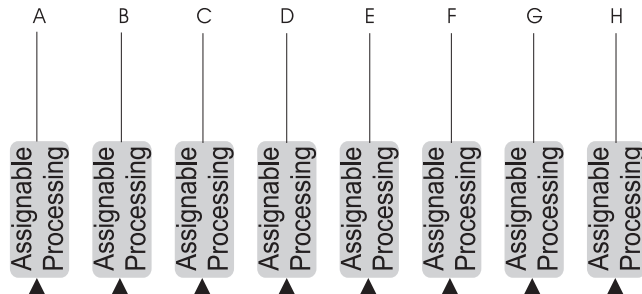


Input Processing

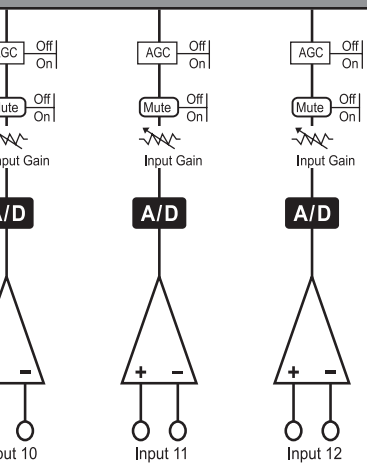




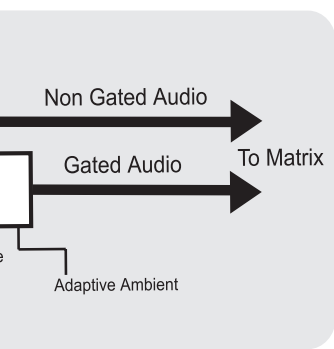
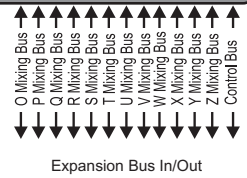
Processing outputs are looped back to matrix



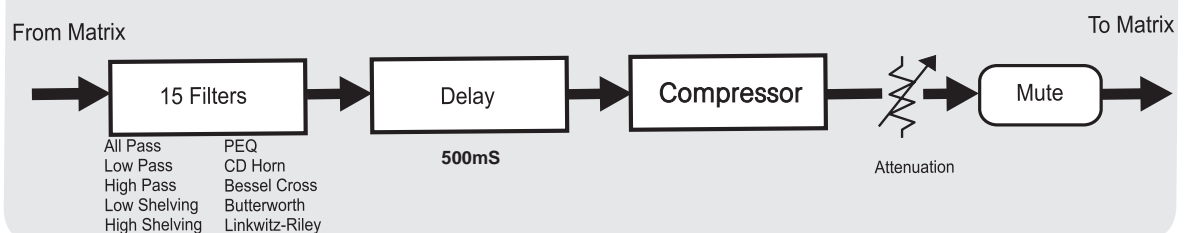
Matrix

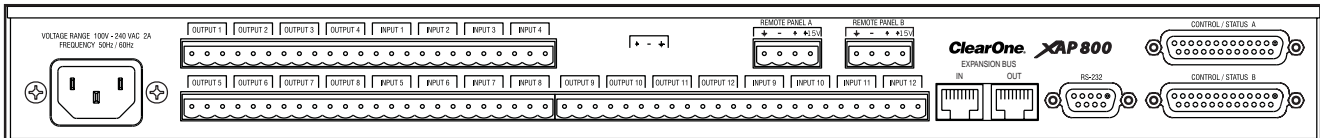


A B C D E F G H



Assignable Processing





Specifications

Dimensions (LxDxH)

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

Weight

7 lb/3.2 kg dry
12 lb/5.5 kg shipping

Operating Temperature

32 to 100° F/0 to 38° C

Humidity

15% to 80%, non-condensing

Power Input Range

Auto-adjusting
100–240VAC; 50/60Hz

Power Consumption

30W typical

Expansion Bus In/Out

Proprietary Network
RJ-45 (2), 115.2kbps, 110kΩ impedance
Category five twisted-pair cable
80' (24 meters) maximum cable length
between any two XAP 800s, XAP 400s,
or PSR1212s

RS-232

DB-9 female
9,600/19,200/38,400 (default)/57,600
baud rate; 8 bits, 1 stop, no parity
Hardware flow control on (default)/off

Control/Status

DB25 female A/B (2)
Inputs A/B: active low (pull to ground)
Outputs A/B: open collector, 40VDC max,
40mA each
+5VDC pins (2) (300mA over-current
protected)

Remote Panels A/B

4-pin push-on terminal block
RS-485 proprietary protocol
Category five twisted-pair cable
1 pair data, 1 pair power and ground
+15VDC (300mA over-current protected)

Mic/Line Inputs 1-8

Push-on terminal block, balanced, bridging
Impedance: 5kΩ
Nominal Level: adjustable -55dBu, -25dBu,
0dBu
Maximum Level: -35dBu, -5dBu, +20dBu
Echo Cancellation: 130ms tail time
(works with 12dB of room gain)
Noise Cancellation: 6–15dB attenuation
Phantom Power: 24V, selectable

Line Inputs 9-12

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

Outputs 1-12

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

Audio Performance

Conditions: Unless otherwise specified, all
measurements are performed with a 22Hz
to 22kHz BW limit (no weighting)
Frequency Response: 20Hz to 20kHz ±1dB
Noise (EIN): -126dBu, 20kHz BW,
max gain, $R_s=150\Omega$
THD+N: <0.02%
SNR: 80dB re 0dBu, (A-weighted)
Dynamic Range: 100dB (A-weighted)
Crosstalk <-91dB re 20dBu @ 20kHz
channel to channel

Approvals

FCC, CSA, IC, CE, NOM, ACA, SABS, JATE

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
Delay adjustable up to 500ms

Matrix Mixing Parameters

32x32 matrix
12 analog in/out
12 expansion bus in/out
8 assignable processing blocks in/out

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

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
Speech Leveler on/off
Auto Gate/Manual gate
Adaptive Ambient on/off

Set-up Software

G-Ware