AP400

PRODUCT OVERVIEW

The Audio Perfect™ 400 (AP400) provides the highest possible audio quality available for a variety of conferencing applications. The AP400 takes audio to the next level with Gentner's proprietary Distributed Echo Cancellation™ technology, which enhances the audio quality in any conferencing application by placing an echo canceller and an audio processor on every microphone input. This technology is vastly superior to traditional system-wide echo cancellation, because it eliminates the gating and audio processing issues that often hamper such systems. The result is highly reliable, clear, transparent audio for use in the most demanding acoustical environments.

The AP400 features an integrated telephone interface, which enables telephone participants of an audio or videoconference to sound as if they were actually in the same room. The AP400 also has an internal power amplifier for easy installation of a loudspeaker. In addition, the AP400 performs automatic gating of microphones, microphone mixing, audio processing and matrix routing—all in a one-rack-mountable unit that seamlessly integrates the functions of each component.

The AP400 provides extreme flexibility for your applications. Each unit has four mic/line inputs, four pre-configured line-level inputs (for CODECs, VCRs, CD players, etc.), and eight programmable outputs (programmable meaning configured with any input or combination of inputs). Each of the mic/line inputs and line-level inputs uses automatic gain control to compensate for loud or soft talkers. The mic/line inputs also offer channelized equalization for continuous cut or boost, as well as high-pass filtering to reduce unwanted low frequency noise.

For conference applications where you need more microphone coverage, AP400's and AP800's can be combined for up to 64 total microphones. When multiple telephone lines are needed, up to 16 AP10 units can also be added. All units are G-Linked together using Gentner's high-speed digital network bus, and can be controlled and diagnosed via a single RS232 connection.

So relax! Whether your room is small, medium or large, Gentner's Audio Perfect products will handle your most demanding acoustic environments and routing configurations!

APPLICATIONS

- Distance Learning
- Teletraining
- Telemedicine
- Courtrooms
- Conference Rooms
- Boardrooms
- Hotels

Gentner

AP400

AUDIO PERFECT™ AUDIOCONFERENCING SYSTEM

FEATURES/BENEFITS

- Easy to install—simple to operate
- Distributed Echo Cancellation™ technology on each mic/line input dramatically improves overall system performance, flexibility and setup
- "Plug and play" capability for easy design, programming, installation and maintenance—no white noise set-up
- Automatic microphone gating reduces background noise and reverberation, resulting in crystal-clear, transparent audio
- Simultaneous two-wire/four-wire capability enables video and telephone participants to communicate simulta-neously with full-duplex audio

- Truly linkable, the AP400 can be expanded (via the G-Link) to accommo-date applications requiring up to 64 microphones—all system parameters are linked and function as one system
- Each of the eight inputs incorporate automatic gain control to compensate for loud or soft talkers, while the four mic/line inputs offer channelized equalization for continuous cut or boost and high-pass filtering to reduce unwanted frequency noise
- Programmable matrix allows for sim-ple system customization for a wide variety of applications and individual

customer requirements
- On-the-fly configuration changes. Six customizable preset programs can be accessed from a remote control, switch or front panel
- Integrated touch-tone dialing for easy dialing through remote control
- Gentner's Digital Signal Processing tech-nology ensures crystal-clear audio with the deepest, most reliable hybrid null
- Selectable auto-answer and auto-dis-connect enables integrators to choose auto-disconnect without auto-answer and vice versa
- Optional remote control
- Worldwide compliance—includes FCC, CSA and CE
- All this in a one-rack-mountable unit

Product	Distributed Echo Cancelation	mic inputs	automatic mic mixer	line inputs	integrated 8x8 Router	4 wire	2 wire	speaker output
Gentner AP400	Yes	4	Yes	4	Yes	Yes	Yes	5 watt
Biamp Voicecrafter 3000	No	2	No-mics are always on	1	No	Yes	No	5 watt
Biamp Voicecrafter 3010	No	2	No-mics are always on	1	No	Yes	Yes	5 watt
Sound Control AVT-24	No	0	No	1	No	Yes	Yes	0
Sound Control AVT-44	No	4	No-mics are always on	1	No	Yes	Yes	10 watt

Gentner®

AP400

SPECIFICATIONS

DIMENSIONS (L x W x H)
17" x 1.75" x 8"
43.2cm x 4.5cm x 25.4cm

WEIGHT
7 lbs./3.18 kg dry
12 lbs./5.4 kg shipping

POWER
Auto-adjusting power module; 100-240Vac; 50/60Hz; 30W

RS232
DB9 female, 9,600/19,200/38,400 (bps) baud
selectable

CONTROL/STATUS
DB25 female; (2) +5Vdc pins, 100mA each (8) open collector status outputs, 20Vmax, 40mA each (8) input activation selectable; momentary or latching ground

SPEAKER OUTPUT
Binding Post 5W max into 4 Ohm

G-LINK IN
RS485; 38.4kbps; 110kOhm impedance, category-five twisted pair cable; 20-foot limit between networked units

G-LINK OUT
RS485; 38.4kbps; 110kOhm impedance, category-five twisted pair cable; 20-foot limit between networked units

TELCO LINE
RJ11 connector—POTS (Plain Old Telephone Service) line or analog extension from PBX

TELCO SET: RJ11 connector—analog telephone set

MIC/LINE INPUTS
Connector: Removable Phoenix® block connector, -55 or 0dBu nominal, adjustable, balanced, bridging

Impedance: 4kOhms

Frequency Response: 20Hz to 15kHz ±2dB

Phantom Power: 24Vdc input, selectable

NOISE: EIN 20Hz to 15kHz − 125dBu

THD: <.03%*

LINE-LEVEL INPUTS
Connector: Removable Phoenix® block connector, 0dBu nominal, adjustable, balanced bridging

Impedance: 20kOhms

Frequency Response: 20Hz to 15kHz ±2dB

SNR: >85dB*

THD: <.01%*

LINE OUTPUTS
Connector: Removable Phoenix® block connector, 0dBu nominal, adjustable, balanced bridging

Impedance: 50 Ohms (designed to drive >600 ohm inputs)

Frequency Response: 20Hz to 15kHz ±2dB

SNR: >85dB*

THD: <.01%*

TELCO AUDIO PERFORMANCE
Frequency Response: ±2dB from 250Hz to 3.3kHz (with AGC disabled)

SNR: >60dB (reference at −15dBm on/off the telephone line)

THD: <2%, 250Hx to 3.3kHz (ACG disabled) (referenced at −15dBm on/off the telephone line)

Pre Emphasis: +4dB at 2kHz

ECHO CANCELLATION TAIL TIME
>120 milliseconds, each gated input

TELCO CANCELLATION TAIL TIME
31 milliseconds

OPERATING TEMPERATURE
0°-50° C, 32° - 122° F

* All SNR and THD measurements are referenced to maximum output level with a band-pass of 20Hz to 20kHz unless otherwise specified.
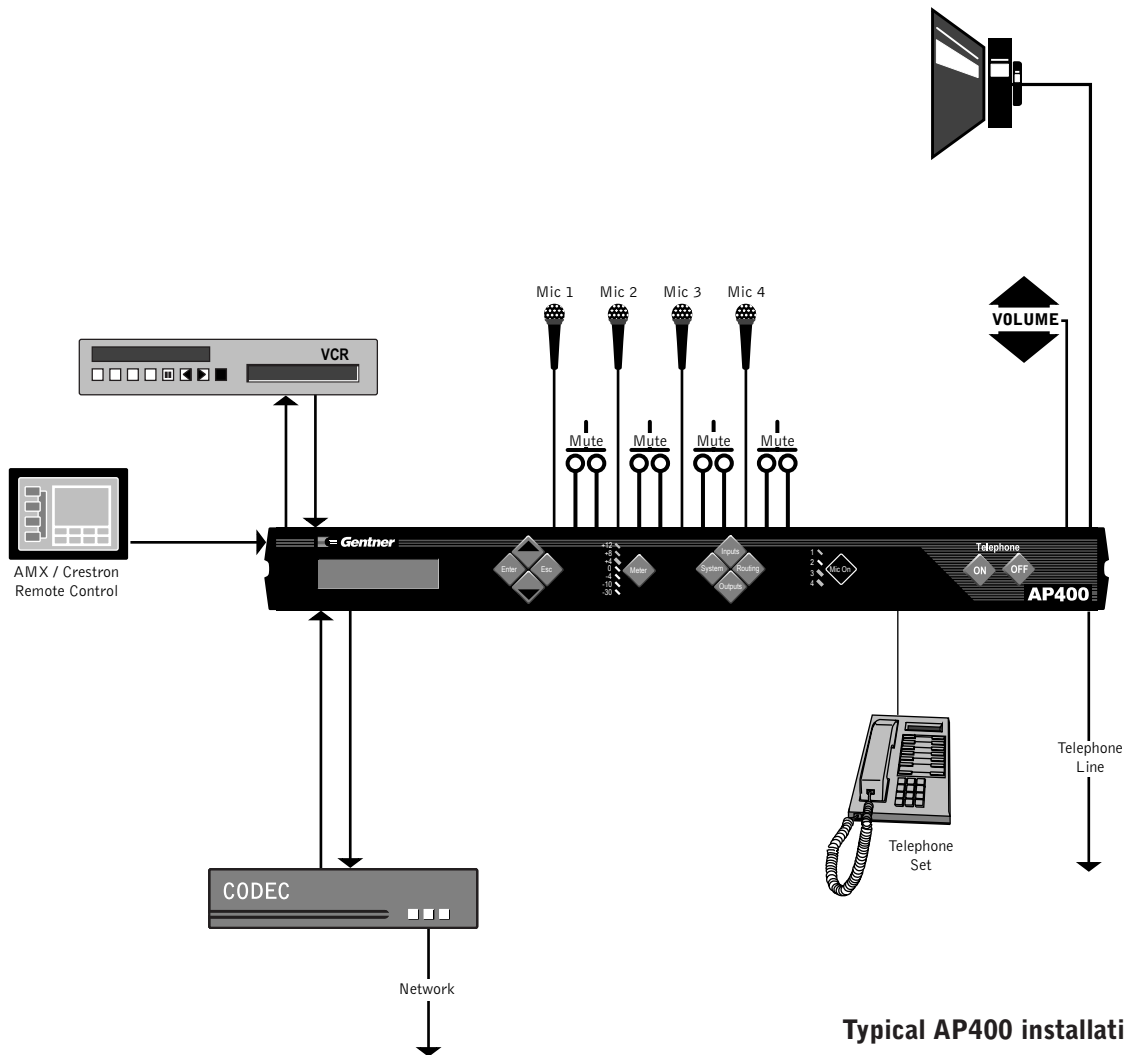
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ACA APPROVED

Specifications are subject to change without notice.

AP400

AUDIO PERFECT™ AUDIOCONFERENCING SYSTEM

Mic 1 Mic 2 Mic 3 Mic 4

VOLUME

VCR

Mute   Mute   Mute   Mute

AMX / Crestron
Remote Control

Gentner

Enter Esc   Meter   Inputs/System Routing/Outputs 1 2 3 4 Mic On   Telephone ON OFF   AP400

Telephone
Set

Telephone
Line

CODEC

Network

Typical AP400 installation:

Send this document to any fax machine with Gentner's Fax-On-Demand: 1.800.695.8110 Doc. #2018

Perfect Communication through Technology, Service, and Education.™