

Adagio® Audio Expander

The Adagio Audio Expander (AAE) from Crestron® is a high-performance audio distribution processor with integrated multi-channel amplifier. Designed to expand a Crestron Adagio home entertainment system with 6 additional room outputs, the AAE is equally well equipped for use as part of any complete Crestron Home® audio distribution solution.

Multi-Room Audio Routing

Built around a 10 x 6 stereo matrix switcher, the AAE delivers professional-quality audio signal routing to 6 amplified room outputs from any of 10 stereo sources. Multiple AAE units may be combined to handle as many as 24 rooms^[1].

Preamp Controls

Independent software-driven volume, bass, treble, balance, loudness, and mute controls are available on every room output, enabling listeners in each room to tailor the sound to individual taste right from the room touchpanel or keypad. Additional features include input gain compensation to assure consistent levels between input sources, plus programmable scaling factor to define minimum and maximum levels for each room, and mono summing to accommodate monophonic speaker systems. Front panel pushbuttons are included for room selection when using the AAE in an Adagio system.

Multi-Channel Power Amplifier

The AAE's built-in 12-channel power amplifier delivers a robust 45 watts per channel to support up to 6 separate pairs of speakers. Mute relays on every output ensure silent muting, and provide protection against "thumping" on power-up.

High-End Performance

An advanced Class G amplifier topology produces the great sound of a classic Class AB design with near-digital efficiency. A massive MOH-core toroidal power transformer directs pure, continuous power to each channel, achieving exceptional dynamic range and low distortion sound quality in every room. Gentle power-up is achieved through a "soft-start" inrush current limiting circuit, and quick-response output protection on each channel prevents failure caused by speaker line faults and overheating.

Easy, Flexible Setup

Together with any Crestron control system and choice of keypads and touchpanels, the AAE provides an extensively customizable audio control solution. Programming a complete audio distribution system is a quick and simple task using Crestron SystemBuilder™ software. For Adagio systems, no programming is required at all, with plug-and-play support for a single AAE, or simplified setup for up to 3 AAE's using Crestron Adagio Composer software.

Built-in Cresnet® Distribution

Six powered Cresnet ports are built into the AAE, providing for the termination of keypads and other Crestron devices without necessitating an external distribution block or power supply.

> *Audio distribution for 6 rooms, expandable up to 24*

> *10 stereo line inputs*

> *Integrated 45 watts x 12 channel power amplifier*

> *Easy expansion for Adagio® systems*



> *Works with any Crestron® control system*

> *Built-in Cresnet® distribution and power supply*

SPECIFICATIONS

Audio

Typical of 6 Room Outputs:

Controls: Volume, Balance, Bass, Treble, Loudness, Mute, Mono, Input Compensation

Volume Gain Range: -80dB to +20dB, 1 dB steps

Mute: -100dB (electronic), -120dB (relay)

Input Compensation: ±10dB

Bass Gain Range: ±12dB @ 100Hz, 2 dB steps

Treble Gain Range: ±12dB @ 10kHz, 2 dB steps

Frequency Response: 20Hz to 20kHz ±0.75dB

S/N Ratio: 100dB, 20Hz to 20kHz A-weighted

THD+N: 0.05%, 20Hz to 20kHz

Stereo Separation: >75dB

Output Power: 45 Watts per channel at 8 Ohms, 60 Watts per channel at 4 Ohms

Communications

Cresnet®: Cresnet slave mode with built-in distribution and power for additional Cresnet devices

Controls and Indicators

ROOM: (6) Pushbuttons with green LEDs and backlit labeling strip, select room(s) to adjust

SETUP (rear): (1) Miniature pushbutton and red LED for touch-settable ID (TSID)

Connectors

SOURCES 1 - 10: (40) RCA female providing (10) unbalanced stereo line-level audio inputs, and (10) parallel loop-thrus;

Maximum Input: 3.2 Vrms (flat);

Input Impedance: 47k ohms;

AAE Adagio® Audio Expander

Connect to audio loop-thru from AADS or AES, or other source devices, with loop-thru to additional AAE units

ROOMS 1 - 6: (12) 2-pin 7.62mm detachable terminal blocks, power amplifier outputs;

Wire Size: 12 AWG maximum;

Output Power (per Channel): 45 Watts at 8 ohms, 60 Watts at 4 ohms

NET 1 - 6: (6) 4-pin 3.5mm detachable terminal blocks;

Cresnet distribution ports, provide data and power for keypads and other Cresnet devices

LOOP THRU: (2) 4-pin 3.5mm detachable terminal blocks;

Cresnet loop-thru ports; Y, Z, and G paralleled with NET ports 1 through 6; Connect to AADS, AES, or other Crestron control system, and additional AAE units

FUSE: Main fuse, T8AH;

(1/4" x 1-1/4", 250V, 8A, time-lag, high-rupture rated)

120V~50-60Hz: (1) IEC C14 male chassis plug; mates with removable power cord (included)

G: 6-32 screw, chassis ground lug

Power Requirements

Main Power: 850 Watts (7 Amps) @ 120 Volts AC, 50-60Hz

Available Cresnet Power: 50 Watts (2.08 Amps @ 24 Volts DC)

Environmental

Temperature: 41° to 104°F (5° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation : 700 BTU/hr @ 8 ohms, 800 BTU/hr @ 4 ohms; all channels loaded to 1/8 full power

Enclosure

Black metal with molded ABS/PC front panel;

Freestanding, side ventilation should not be restricted

Dimensions

Height: 5.64 in (144 mm)

Width: 17.16 in (436 mm)

Depth: 18.08 in (460 mm)

Weight

36.6 lbs (16.2 kg)

INTERNATIONAL VERSION (230 VAC)

AAEI

All the features and specifications of the AAE except:

Connectors (partial)

FUSE: Main fuse; T4AH;

(5mm x 20mm, 250V, 4A, time-lag, high-rupture rated)

230V~3.5A: (1) IEC Male; mates with removable power cord (included)

Power Requirements

Main Power: 850 Watts (3.5 Amps) @ 230 Volts AC, 50Hz

Available Cresnet Power: 50 Watts (2.08 Amps @ 24 Volts DC)

Available Models

AAE: Adagio® Audio Expander

AAEI: Adagio® Audio Expander - International Version, 230V

Available Accessories

AAE/AADS_FRONT_LABEL: Backlit Engravable Label Strip for AAE, AADS, and AADS-XM

CBL-RCA2-1.5: Crestron® Certified RCA Stereo Audio Interface Cable, 1.5 ft

CBL-RCA2-3: Crestron® Certified RCA Stereo Audio Interface Cable, 3 ft

CBL-RCA2-6: Crestron® Certified RCA Stereo Audio Interface Cable, 6 ft

CBL-RCA2-12: Crestron® Certified RCA Stereo Audio Interface Cable, 12 ft

RMK-4U: 4-Space Rack Mount Shelf

Notes:

1. Room outputs are expandable by cascading the inputs of multiple AAE units using standard RCA interconnect cables. Crestron recommends cascading no more than four (4) AAE units. Adagio systems may utilize up to three (3) AAE units in addition to the main unit. The actual number of possible units in a system is virtually unlimited, although additional equipment may be necessary to maintain signal integrity. Contact your Crestron representative for assistance.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

Crestron, the Crestron logo, Adagio, Cresnet, Crestron Home, and SystemBuilder are trademarks or registered trademarks of Crestron Electronics, Inc. in the United States, other countries or both. Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims proprietary interest in the marks and names of others.