

# Crestron AV2™

## Economical Dual Bus Control System



AV2 with optional card cage and expansion cards

The AV2 is a completely new solution-driven control technology that's also a network information control system. It's the budget-conscious solution for even the most complex control applications like media help desks, videoconferencing, distance learning, and entertainment facilities.

At the heart of the AV2 is the breakthrough 2-Series Control Engine, based on the hot new 257 MIPS, 32-bit Motorola ColdFire® processor. Onboard 34MB memory is enhanced with a 4GB expansion slot that supports off-the-shelf Type II compact flash memory and the IBM Microdrive® hard disk drive, for on-board storage of program and touchpanel files, room and equipment profiles, upgrades, databases and schedules.

Crestron's unique Dual Bus system, with its high-speed I/O bus architecture, provides blazing fast throughput, system wide. This Dual Bus architecture also lets you upgrade to new, higher performance expansion cards, while still using your existing cards and software programs. The 40Mb/s Y-Bus supports existing CNX control cards and serves as the pipeline for IR, serial communications and relays. And the 300Mb/s Z-Bus is designed for super high speed control card applications such as 10/100 Ethernet, USB, USBII, FireWire, disk drive arrays and more.

The AV2 also provides true secure network communications required for today's corporate networks and the Internet with variety of plug-in 10/100

Ethernet cards. A Built-in Firewall delivers the ultimate in security, with on-board Network Address Translator (NAT) and Router functions. It supports dynamic and static IP addressing and full duplex TCP/IP and UDP/IP, and offers a WAN port for Internet and Corporate-wide communications and a LAN port for Room and AV Private Network use. And the built-in Web Server provides the ultimate in help desk functions, and uses memory storage on a compact flash card for remote access and control.

The 2-Series real-time operating system is vastly upgraded, yet compatible with existing Crestron software and programming. A key feature is the new Crestron Compiler, which allows any existing Crestron SIMPL™ Windows® control program to be easily recompiled for the 2-Series. The real-time, preemptive multi-tasking/ multi-threaded operating system offers a FAT32 file system with long file names for easy and open file management. And the enhanced SIMPL+™ instruction set is also fully compatible with existing Crestron SIMPL™ Windows® and SIMPL+™ programs.

With its blinding speed, massive memory and revolutionary Dual Bus architecture, the AV2 is built from the ground up for high performance, secure Internet communications and Dynamic Expansion Capabilities. Designed for reliability and reinforced by Crestron's True Blue Customer Support, it's part of the complete Crestron line of advanced solutions for audio/video/Internet distribution and control.



# Crestron AV2™ Economical Dual Bus Control System

## Processor:

- **CPU:** 32-bit Motorola 5407 ColdFire® Processor
- **Processing Speed:** 257 MIPS (Dhrystone 2.1 benchmark)

## Memory:

- **On-board Memory:** 34MB
- **Expandable Memory:** Compact Flash slot (up to 4GB) accessible on rear panel accepts standard Type II Compact Flash or IBM Microdrive®

## Dual Bus Architecture:

### Y-Bus:

- **40 Mb/s parallel communications**
- **IR/Serial ports:** 8 programmable simultaneous outputs for IR, TTL Level RS-232 or serial interface; signal (ws) and ground (G) pins; infrared output up to 1.2MHz
- **I/O Versiports:** 8 programmable analog and digital inputs as well as digital outputs
- **Relay ports:** 8 normally open relays, isolated with MOV suppression
- **Communication ports:** 6 bi-directional ports for RS-232/422/485; Ports 1-4 Cresnet Accelerator ready
- **Optional 3-slot card cage (C2CAGE)** supports Crestron's existing CNX expansion cards

### Z-Bus:

- **300 Mb/s parallel communications**
- **1 expansion card slot.** Optional cards include:
  - **C2ENET-1:** Single Port 10/100 BaseT Ethernet
  - **C2ENET-2:** Dual Port WAN-LAN-10/100 BaseT Ethernet
  - Future Support for USB, USB II, FireWire, Disk Drive Array

## Computer console:

1 RS-232 port (accessible from front or rear panel), 9-pin DB9 for programming with a PC

## Cresnet port:

1 4-pin male connector, expandable via optional Cresnet Network Accelerator, which increases the effective network speed, fan-out and device addresses by a factor of 8 for each poll accelerator added to the system.

## Ethernet

- **10/100 BaseT Ethernet**
  - Built-in Firewall for ultimate security
  - Dynamic/static IP and full duplex TCP/IP, UDP/IP, SMTP
  - Built-in Router
  - Proxy Server
  - Built-in Network Address Translator (NAT)
  - Built-in Web Server: Memory storage on Compact Flash Card

## Operating System:

- Real-time, preemptive, multitasking kernel
- Multi-threaded
- FAT32 file system with long names
- Fully compatible with existing SIMPL™ Windows® and SIMPL+™ programs
- Enhanced SIMPL+ instruction set

## Reset Buttons

**HW-R:** Performs physical reset of system

**SW-R:** Restarts SIMPL program

## LED Indicators

**PWR:** Indicates power supplied to the unit

**NET:** Indicates activity within the system

**ERR:** Indicates an error message is available from the software feature buttons

**LNK A:** Indicates attachment to LAN (port 1 of Z-Bus card)

**ACT A:** Indicates communication over LAN (port 1 of Z-Bus card)

**LNK B:** Indicates attachment to LAN (port 2 of Z-Bus card, if dual port card inserted)

**ACT B:** Indicates communication over LAN (port 2 of Z-Bus card, if dual port card inserted)

## Power Requirements:

100-250VAC, 2.3A, 50/60Hz, internal universal power supply

## Dimensions

3.47" / 8.81cm (H) x 19.00" / 48.26cm (W) x 9.7" / 24.6cm (D)

## Weight

6.75lb/ 3.1kg

## Optional Accessories:

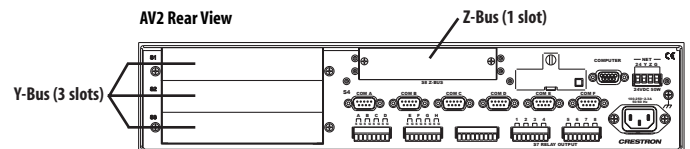
**C2CAGE:** 3 Slot Card Cage supports crestron's existing CNX expansion cards for IR, serial communications and relays.

**Cresnet Network Accelerator:** Allows a large number of Cresnet devices to be controlled by a single AV2 while maintaining a high level of reliability and performance. Connecting to the control processor via a high-speed RS-232 (using built-in COM ports 1-4) or Ethernet link, it effectively multiplies Cresnet bandwidth by implementing eight simultaneous Cresnet networks, each operating at full speed. Multiple units can be used at the same time for even larger or faster systems.

AV2 Front View



AV2 Rear View



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Crestron Electronics, Inc. 15 Volvo Drive • Rockleigh, NJ 07647  
Tel: 800.237.2041 / 201.767.3400 • Fax: 201.767.7576 • www.crestron.com

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