

Compact Control System with Ethernet

Creston 2-Series Control Systems are the brain of a complete integrated AV or automation solution. Every audio, video, and environmental element of the home, boardroom, classroom, or command center becomes integrated and accessible through the control system. Creston 2-Series control systems are unmatched for power, performance and scalability, providing the ideal choice for today's demanding control applications.

The MC2E is a low-cost 2-Series Ethernet control system ideally suited for any application requiring the powerful control engine and Ethernet connectivity of Creston's larger control systems, but with fewer control ports. The MC2E features two built-in COM ports, four IR/Serial ports, four I/O Versiports, four isolated relays, and Ethernet for control of video projectors, plasma displays, switches, DVD players, screens, lifts, and much more. Additional control ports may be added using Cresnet expansion modules, or by "slaving" additional control processors.

2-Series Engine

At the heart of the MC2E is the powerful 32-bit Freescale ColdFire® processor. Creston's exclusive enhanced real-time operating system makes the MC2E the fastest, most reliable control system available.

Cresnet®

Cresnet is the communications backbone for many Creston touchpanels, keypads, lighting controls, and other devices. The Cresnet bus is a simple, yet flexible 4-wire network that provides rock-solid bidirectional communication for numerous Cresnet devices.

Cresnet Slave Mode

Selectable Cresnet Slave Mode enables the MC2E to be configured as a Cresnet slave device, effectively transforming it into a Cresnet expansion module. Such flexibility can offer a cost-effective solution for system expansion, providing a host of additional control ports in a single module.

Ethernet

Creston pioneered the IP-based control system to harness the vast possibilities of Ethernet and the Internet for remote control, monitoring, programming, and diagnostics. The MC2E is designed to deliver the world's most advanced IP control solution with full-duplex 10/100 Ethernet, built-in Web server and email client, and support for both static and dynamic IP addressing.

e-Control®2

Creston's award-winning **e-Control 2 XPanel** solutions offer the most flexible range of IP control possibilities available. Using a Windows® computer or CE/PocketPC™ PDA device, e-Control 2 provides an amazing control GUI that looks and behaves just like a Creston Isys® touchpanel.

RoomView™

Every Ethernet-enabled 2-Series control system works directly with Creston's exclusive **RoomView** Help Desk software for the industry's most comprehensive facility-wide asset management solution.

SNMP

Built-in SNMP support enables network management of Creston control systems using third-party SNMP software. As an alternate or supplement



to RoomView, SNMP allows full control and monitoring from the IT Help Desk or NOC in a format that's familiar to IT personnel.

SSL

All Ethernet-enabled 2-Series control systems support SSL (Secure Sockets Layer), the industry standard for protecting sensitive network communications.

IR Wireless Option

When equipped with an optional **CNXXMIRD** IR receiver, the MC2E provides a low-cost wireless control solution using any of Creston's IR wireless touchpanels, or a third-party universal IR remote.

> 2-Series engine | Dual-bus architecture

> Cresnet port - master/slave selectable

> 10/100 Ethernet | SSL encryption

> e-Control 2 and RoomView enabled | SNMP support

> 2 Com ports (RS-232/422/485)

> 4 IR/serial ports

> 4 Versiport I/O ports

> 4 Low-voltage relay ports

> IR wireless compatible using CNXXMIRD

> External power supply included

> Single-space EIA rack-mountable

SPECIFICATIONS

Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

MC2E Compact Control System with Ethernet

Memory

SDRAM: 32 MB
NVRAM: 256 KB
Flash: 4 MB

Operating System

Real-time, preemptive multi-threaded/multitasking kernel; FAT32 file system with long names; supports **SIMPL™ Windows** and **SIMPL+®**

Ethernet

10/100BaseT, auto-negotiating, full/half duplex, static IP or DHCP/DNS, SSL, TCP/IP, UDP/IP, CIP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron **e-Control@2 XPanel** and **RoomView™** applications

Connectors

COM A - B : (2) DB9 male, bidirectional RS-232/422/485 ports;
Up to 115.2k baud;
Hardware and software handshaking support;
All ports support **C2N-NPA8** Network Poll Accelerator
INFRARED-SERIAL OUTPUT A - D : (4) 2-pin 3.5mm detachable terminal blocks, IR/Serial output ports;
IR output up to 1.2 MHz;
1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud;
Individual signal generator per port, allowing simultaneous firing of all ports
I/O Versiports 1 - 4 : (1) 5-pin 3.5mm detachable terminal block comprising (4) digital input/output or analog input ports (referenced to GND);
Digital Input: Rated for 0-24 Volts DC, input impedance 20k ohms, logic threshold 1.24 Volts DC;
Digital Output: 250mA sink from maximum 24 Volts DC, catch diodes for use with "real world" loads;
Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 20k ohms;
Programmable 5 Volts, 2k ohms pull-up resistor per pin
RELAY OUTPUT 1 - 4 : (1) 8-pin 3.5mm detachable terminal block comprising (4) normally open, isolated relays;
Rated 1 Amp, 30 Volts AC/DC;
MOV arc suppression across contacts
IR IN: (1) 3-pin 3.5mm detachable terminal block;
For connection of the **CNXRMIRD** IR Receiver (sold separately);
Allows IR wireless control from Crestron or third-party remotes using RC-5 IR commands
LAN: (1) 8-wire RJ45 with 2 LED indicators;
10/100BaseT Ethernet port;
Green LED indicates link status;
Yellow LED indicates Ethernet activity
COMPUTER: (1) DB9 female, RS-232 computer console port
NET: (1) 4-pin 3.5mm detachable terminal block;
Cresnet port, Master/Slave selectable;
Expandable via **C2N-NPA8** Network Poll Accelerator
24VDC: (1) 2.1mm barrel DC power jack, 24 Volt DC power input;
(**PW-2410RU** power supply included);
Passes through to NET port to power Cresnet devices

Reset Buttons

HW-R: Hardware reset (reboots the control system)
SW-R: Software reset (restarts the SIMPL program)

LED Indicators

PWR: (1 green) Indicates DC power supplied to unit
NET: (1 yellow) Indicates Cresnet bus activity
MSG: (1 red) Indicates control system has generated an error message
LNK: (1 red) Indicates a valid connection on LAN port
ACT: (1 red) Indicates activity on LAN port

Power Requirements

12 Watts (0.5 Amp) @ 24 Volts DC (**PW-2410RU** power supply included)
Available Cresnet Power: 13 Watts using **PW-2410RU** (included), or 38 Watts using **PW-2420RU** (sold separately)
Cresnet Power Usage: 12 Watts (0.5 Amp @ 24 Volts DC) with no power supply connected to the 24VDC connector

Environmental

Temperature: 41° to 113°F (5° to 45°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish
Faceplate: Extruded aluminum, black matte powder coat finish with polycarbonate label overlay
Mounting: Freestanding or 1U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 1.80 in (4.57 cm);
1.70 in (4.32 cm) without feet
Width: 17.03 in (43.24 cm);
19.0 in (48.26 cm) with ears
Depth: 8.65 in (21.96 cm)

Weight

4.3 lbs (2.0 kg)

INCLUDED ACCESSORIES

PW-2410RU: 25 Watt Regulated Universal Power Supply

AVAILABLE ACCESSORIES

PW-2420RU: 50 Watt Regulated Universal Power Supply
C2N-HBLOCK: Cresnet Network Distribution Block
CNSP-XX: Custom Serial Interface Cable
IRP2: IR Probe
CNXRMIRD: IR Receiver

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