

SWARCO

# McCain 2070E CONTROLLER



The McCain 2070E Controller, designed in full compliance with the 2009 Caltrans Transportation Electrical Equipment Specifications (TEES), is a rugged, multi-tasking field processor and communications system configurable for a variety of traffic management applications. It is interchangeable with standard 170 controllers, allowing users to upgrade existing intersections to a higher performance platform without replacing cabinet hardware.



## KEY BENEFITS

- Support a variety of applications through modular design
- Upgrade to more modern platform without replacing cabinet hardware
- Compatible with off-the-shelf products and intersection control software
- Compliant with 2009 Caltrans TEES

## PRODUCT DESCRIPTION

The McCain 2070E Controller is designed to control traffic intersections, though it can be used for a multitude of applications. Based on the software control package utilized, the control applications can expand to include: ramp metering, variable message signs, sprinklers, pumps, and changeable lane control.

The controller's modular design allows various configurations based on the desired application.

An OS-9 real-time operating system affords a robust, flexible, and expandable platform that is compatible with multi-vendor application control software.

McCain offers a variety of compatible software programs (sold separately).

# McCain 2070E CONTROLLER

## STANDARD FEATURES

### Operating System

- Microwave OS-9 real-time operating system (RTOS)

### Modules (standard, included)

- 2070-1E CPU Module
- 2070-2E Field I/O Module
- 2070-3B LCD/Front Panel Module
- 2070-4A Power Supply

### Microprocessors

- CPU Module: Freescale MC68EN360, 32 Bit, 24.576 MHz microprocessor
- I/O Module: Freescale microprocessor, running at 24 MHz

### Memory

- 8MB Flash memory
- 32MB PSRAM
- 2MB non-volatile SRAM

### Backup real-time clock (RTC)

### Applicable standards

- Meets or exceeds Caltrans TEES 2009 standards

## GENERAL SPECIFICATIONS

Dimensions <sup>1</sup> :	19"W x 7"H x 12"D
Form Factor:	EIA rack mount compatible
Power:	95 VAC to 135 VAC, 60 Hz (± 3 Hz) +5VDC            10.0A +12VDC Serial 0.5A -12VDC Serial 0.5A +12VDC ISO    1.0A
Environment:	Operating Temperature: -37° C to +74° C Humidity: 0 to 95% (non-condensing)
Weight <sup>2</sup> :	± 12 lbs

<sup>1</sup>Dimensions rounded to the nearest inch

<sup>2</sup>Based on final module selection

<sup>3</sup>See separate data sheets for details on SWARCO McCain's software control programs

## INTERFACES

### Communication Interfaces

- SDLC ports (2)
- ACIA ports (5)
- 10/100 Mb Ethernet (4), 4 LEDs
- Datakey removable storage device, 8Mbits, (blue color)

### Front Panel Interface

- Display: 8 lines x 40 characters
- Keyboards: 3 x 4 navigation and 4 x 4 data entry keypads
- C50J connector

### Cabinet Interfaces

- Rear connectors C1S, C11S, and C12S

## SOFTWARE

Compatible with McCain's 2033 intersection control, 2045 arterial master control, and 2042 ramp metering control software. Also compatible with any 2070E compliant third party software<sup>3</sup>.

## OPTIONS

- McCain control software

### Available Modules

- 2070-2B field I/O module for ITS (SP5) / NEMA (SP3) cabinet applications
- 2070-3A large 4 x 40 character display
- 2070-4A-220 international voltage: 190VAC to 253VAC, 50 Hz (± 3 Hz)
- 2070-6A dual 1200 baud modem
- 2070-6B dual 9600 baud modem
- 2070-7A async comm module
- 2070-7B sync comm module
- 2070-8 NEMA adapter

