

# 2070E CONTROLLER

CABINETS

CONTROLLERS

DETECTION

PARKING

SIGNALS

SIGNS

SOFTWARE

SPECIALTY



## Overview

McCain's 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.

## 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).

# 2070E Controller

## Standard Features

### Operating System

- Microware 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:	19" W x 7" H x 12" D (rounded to the nearest inch)
Form Factor:	EIA rack mount compatible
Power:	95 VAC to 135 VAC, 60 Hz (± 3 Hz) +5 VDC                      10.0 A +12 VDC    Serial            0.5 A -12 VDC    Serial            0.5 A +12 VDC    ISO                      1.0 A
Environment:	Operating Temperature: -37° C to +74° C Humidity: 0 to 95% (non-condensing)
Weight:	± 12 lbs (based on final module selection)

## 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. (See separate data sheets for details on McCain's software control programs).

## 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