



Rackmount Controllers

The Next Generation in Advanced Transportation Controller (ATC)

Cobalt® is Econolite's next-generation ATC specifically designed for the mobile computing environment. Fully meeting ATC standards, Cobalt features a breakthrough hardened seven-inch touchscreen Graphical User Interface (GUI) matched with Linux-based OS that makes programming and access to functions the easiest in the industry.

Cobalt Rackmount controllers are designed to support Connected and Automated Vehicle (CAV) programs. An optional Connected Vehicle Co-Processor (CVCP) module can be installed to support advanced Vehicle-to-Infrastructure (V2I) processing for CAV applications.

Helping to ensure safety, traffic signal controllers represent one of the most important intelligent technology and communication components of a signalized intersection. The Cobalt series of controllers are designed to increase safety and traffic signal operations for years to come.



Key features

- Large seven-inch color Thin Film Transistor Liquid Crystal Display (TFT LCD)
- Touch-screen display for intuitive, graphical programming
- High brightness and contrast display for better outdoor readability; not available with than any other controller on the market
- Linux, open architecture real-time multitasking operating system
- Web-based user interface for remote programming and status observation
- Meets or exceeds the requirements of the ATC 5201 standard

Cobalt® Rackmount: Hardware description



Cobalts Rackmount ATC controllers may be configured with Econolite's highly capable EOS, with optional Cobalt touch interface, or other prequalified ATC/Linux application software meeting current ATC standards. OS and software upgrades can be made easily by USB memory stick, Ethernet via remote installer software, or through the Centrac's® Advanced Transportation Management System (ATMS).

Cobalt Rackmount ATC controllers include an advanced, Linux-based engine board that conforms to the ATC 5201 standard. It also includes connectors that support integration into Caltrans 33X, ATC, or NEMA TS2 Type-1 cabinets, four Ethernet ports, two USB ports, and an SD card slot. Additionally, Cobalt's seven-inch color, high brightness TFT LCD module with optional touchscreen capabilities is readable in direct sunlight, can be operated with gloved hands, and is not affected by condensation or water drops. Optional communication modules can be installed for twisted-pair copper (FSK) or serial (RS232) system interconnect.



Hardware features

- ATC engine board:
 - Conforms to the ATC 5201 Standard
 - 1GHz Dual-Core QorIQ processor
 - 1GB of DDR3 DRAM memory for application and OS program execution
 - 256MB of NOR Flash for storage of OS Software and user applications
 - Internal microSD slot for expanded data storage up to 256GB
 - 2MB of SRAM memory for non-volatile parameter storage
 - Linux 6.1 or later kernel and Board Support Package (BSP)
- Two integral Ethernet switches for two networks, ENET1 and ENET2
- Advanced Graphics Controller (optional):
 - Enables enhanced touchscreen graphical user interface
 - Full-color WVGA graphics
 - Supports video streaming from RTSP-enabled video detectors
 - Can be used as co-processor for advanced user applications
 - 1.6GHz Quad-Core ARM processor
 - 4GB of DDR4 DRAM memory
 - 16GB of NAND Flash
 - Linux 5.15 kernel
- Two USB 2.0 ports used to:
 - Update Linux or application software
 - Upload or download configuration
 - Upload logged data
- Datakey socket for an optional 3.3V datakey, 2 through 32MB
- SD memory card socket
- CPU active LED

- Three communications ports standard:
 - NEMA-ATC SDLC serial port 1
 - 25-pin NEMA serial port 2
 - 9-pin C50S console serial port
- Built in speaker for enhanced audio controller feedback
- Integral carrying handle in back of controller
- Power supply:
 - External 24VDC protected by a self-resetting electronic fuse

Hardware options

- Two user interface options:
 - Advanced display with graphics and touch-screen
 - Basic display with textual menus only; no touch or graphics (standard)
- Two models:
 - TS2 Type-2 connectors
 - TS2 Type-1 connector
- Communications module options:
 - FSK Module that can be configured for RS232 operation
 - 2070 TEES 2009 standard 6A, 6B, and 7A plug-in modules
- Datakey 3.3V, 2 through 32MB

Specifications	Cobalt Rackmount Controller
Dimensions	19 in L x 7 in H x 11.5 in W (482.6 mm L x 177.8 mm H x 292.1 W mm)
Power Supply	• 110VAC @ 50/60 HZ or optional 220/240 VAC @ 50/60 HZ • Fuse protection for either 110 or 220/240V • Protection for the 24VDC supply is provided by resettable electronic fuse
Temperature	-34.6°F to +165°F (-37°C to +74°C)