



Achieving ITS Objectives

with Safetran's newest traffic control cabinet -
The ATC Cabinet



About the Advanced Traffic Controller Cabinet (ATCC)

The Safetran (an Econolite Group company) ATCC is the next-generation Intelligent Transportation System (ITS) traffic cabinet. This intelligent cabinet design is based on the most popular features of Safetran's Caltrans, NEMA, and ITS cabinets. The ATCC uses high-speed serial communications, providing modern features, advanced diagnostics, enhanced safety, simplified cabinet wiring, and reduced cabinet size. The ATCC supports both 120 VAC and 48-volt DC signal heads, while high density load switches and quad detector modules allow for up to 32 signal outputs and 120 detection inputs.

The ATCC provides both voltage and current monitoring of all signal outputs - even ultra low-power LEDs. The innovative Safetran power assembly accepts 120 VAC and a variety of alternative off-grid power sources, providing safer, smarter, and greener intersection operations.

Certifications: The ATCC is designed to meet FCC Part 15 Class A, IEC61000-4-2, IEC61000-4-4, IEC6100-4-5, UL60950-22 and NFPA 70 article 110-27 and UL508 depending on selected configuration.

Safer, smaller, and more efficient with alternative power options!



Power Assembly

The intelligent Power Assembly, designed to work in ATC-type controllers, can be ordered in several different configurations: the AC-only configuration which drives standard 120 VAC LED signals without battery backup; or the DC configuration for driving 48 VDC signal heads and includes battery backup capabilities.

- The flasher is located in the Power Assembly – keeps the intersection running in flash mode during maintenance or equipment replacement
- Optional MPPT charge controller, or Solar battery charging system with the 48VDC configuration
- Load shedding for ultra low power operation
- Supports alternative power solutions to enable off-grid operation
- Clean power outlets for voltage sensitive electronic equipment
- Support for multiple NEMA TS-2 detection devices
- 16 NEMA-compliant 24-volt I/O ports provide additional user definable functionality flexibility
- Serial Bus connectors enable assemblies to be ‘daisy-chained’ together
- 15-pin Molex connector array provides standardized single connector to power all assemblies in the cabinet
- Dimensions: 5.25” x 9” x 19”
- Power Supply: 24 and 48VDC



48-Channel Input Assembly

The ATC Cabinet supports 120 channels by using a combination of 24-channel and 48-channel detector racks.

- 48-channel rack has 2 SIUs that provide 8 (4 each) optically-isolated inputs for ped buttons
- 24-channel rack has 1 SIU for 4 optically-isolated inputs
- Detector cards are hot swappable
- Two 24-channel test inputs with D-sub connectors for test panels or other instrumentation
- Dimensions: 5.25” x 9” x 19”



Output Assembly

The ATC Cabinet houses up to 2 Output Assemblies. Each Output Assembly supports up to 16 output channels. The new design leverages new dual channel, or High Density Switch Packs (HDSP). The Output Assembly also contains the CMU and the Main Contactor. The CMU uses a Datakey rather than a traditional CMU/MMU programming card.

- 8 HDSPs provides 16 output channels in a 5.25” x 9” x 19” enclosure
- Available in 48 DC - and 120-VAC versions
- HDSPs are hot swappable
- Custom labeling options
- PTC protection
- Front panel technician switches to test outputs and control equipment, stop time, flash, and more
- 8 Output Termination Assembly interface connectors



Auxiliary Display Unit (ADU)

The optional ADU is a useful diagnostic tool. Developed to provide the full set of intersection display indicators and includes additional diagnostic capabilities.

- Visual status of load switches
- LCD screen displays voltage and current levels of each output
- LCD screen provides interface screen for CMU
- Built in diagnostic wizard



Traffic Controllers

The ATC Cabinet is designed to work with the Cobalt Rack Mount controller, or a 2070 controller with an Econolite 2070 1C module installed.

- Options for complex intersections
- Customized features

New Econolite EOS software has been developed for the Econolite Cobalt and other properly configured ATC controllers to operate and leverage all of the enhanced capabilities of the new ATC Cabinet.

EOS has been designed to support the latest in:

- Emergency Vehicle Preempting (EVP)
- Transit Signal Priority (TSP)

EOS also provides:

- Cabinet Configuration and Mapping
- Controller Sequencing
- Event /Coordination Planning
- Enhanced Detector Configuration by Lane



Output Termination Assembly

Each Output Termination Assembly panel supports 16 channels. It is designed to provide mounting flexibility for rear or front cabinet access, and at different angles and depths to optimize field wiring configurations and ease of maintenance. The assembly also provides 48 VDC and 120 VAC source outputs to confirm signal head function before the load switches are installed.

- New HD flash transfer relays with LED indicators
- New miniature flash program blocks
- Configurable for 48 VDC or 120 VAC operation
- Each output line is protected by a three-stage, over-current, and transient protection circuit
- Transparent rear panel to observe transient protection circuit condition
- Test ports for easy installation as well as verification



Service Panel

AC power is attached to the cabinet through the Service Panel. The Service Panel provides 2 terminal blocks: one for utility power input; the other for generator connection or external BBS.

- Power transfer relay automatically changes over to remote power input
- 10-amp main breaker and 15-amp GFI breaker
- TEES-compliant plug-in 40,000-volt transient suppressor module
- EMI/RFI filtering
- Flexible mounting
- "Touch Safe" enclosure

