

COLLISION CONTROL COMMUNICATIONS, INC.

The **ELIMINATOR®** Smart Preemption & Collision Avoidance System

Give your responders green lights and cut crash risk – without replacing your existing controllers.

What The **ELIMINATOR®** Does

The **ELIMINATOR**® System is a GPS-based traffic preemption and collision avoidance platform for emergency and transit fleets.

- Grants **temporary right-of-way** to authorized vehicles at equipped intersections.
- Provides **vehicle-to-vehicle collision warnings** when two equipped units are on a collision course.
- Uses GPS + IMU + 900 MHz FHSS radio, so it still works even when cellular coverage is weak or unavailable.
- Overlays on **existing traffic controllers** and cabinet infrastructure no complete rip-and-replace required.

Key Benefits for Your Agency

- Faster response times
 - Request preemption earlier and hold greens longer based on ETA, distance, and turn intent.
- Improved safety
 - Collision warnings between equipped vehicles even at rural, unsignalized intersections.
 - o Color-blind-friendly displays, audible alerts, and clear status indications in the cab.
- Lower lifecycle cost

- Uses shared radio and GPS infrastructure for both preemption and collision avoidance.
- o No per-intersection cellular plans required for core operation.

Future-ready Smart City platform

- o Supports V2I (Vehicle-to-Intersection) and V2V (Vehicle-to-Vehicle) applications.
- Flexible configuration, data logging, and integration with your existing back office tools.

System at a Glance

Vehicle Unit

Voltage: 12 VDC

• **Power Draw:** < 1 A (RMS); < 1.5 A (peak)

• Modes: ON, OFF, SMART (hands-free)

• Range: up to ~3 miles line-of-sight via 900 MHz FHSS

Interfaces:

Turn signals, siren/light bar, defeat inputs (e.g., door, parking brake)
 Ethernet (RJ45), USB, GPS, 900 MHz
 (Industrial, Science and Medical Band) FHSS radio

- o Optional WiFi / Cellular / Zigbee module
- **Displays:** 7" or 4.3" touch screen, or compact LED bank
- **Data:** Data "stream" is transmitted multiple times per second, and logged every 2 seconds.
- **Data Logged:** Each data "stream" contains the date/time (accurate to one within second), and the vehicle's: unique ID (e.g. Ladder 21), priority level, exact location (lat/lon), speed, direction of travel, lightbar status, turn signal status, parking brake status, whether or not it is requesting preemption, whether or not preemption has been granted, distance to intersection and Estimated Time of Arrival (ETA) at intersection. Data is logged and stored as an easy to read CSV file.

Intersection / Cabinet Unit

• Power: 120 VAC

• Standards: NEMA TS-2, FCC, CE compliant

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- **Detection:** up to multiple preemption channels per intersection
- Range: up to \sim 3 miles line-of-sight
- Configuration:
 - Per-approach ETA, distance, and geo-windows o
 Angle-based detection and configurable "cones"
- Management: via cabinet, laptop (wired/wireless), or network connection

Typical System Components

In the Vehicle

- GPS/Radio Control Unit
- Optional WiFi/Cellular/Zigbee module
- 7" or 4.3" touch display or LED status bank
- Low-profile GPS/900 MHz antenna
- Pre-terminated vehicle wiring harness and cables

In the Cabinet

- GPS Phase Selector card
- 900 MHz FHSS radio module
- Optional WiFi/Cellular/Zigbee module
- GPS pole/cabinet cable
- Low-profile 900 MHz antenna

Deployment & Integration

- Designed to overlay existing controllers and cabinets.
- Supports **multi-jurisdiction** operation neighboring agencies can be included or excluded as needed.
- Configurable from a **technician-friendly interface** with robust diagnostics and data export.
- Ideal for fire, EMS, law enforcement, and transit priority deployments.

Contact

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