EMTRAC

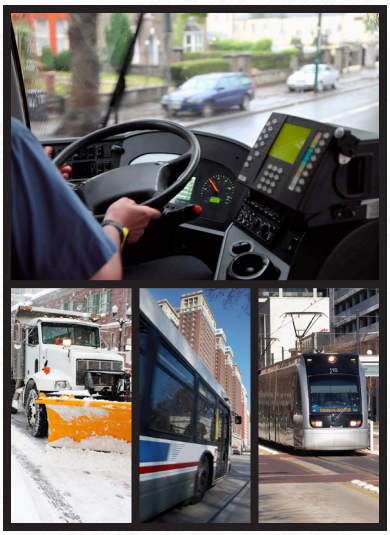
Vehicle Control Head

About the Vehicle Control Head

The EMTRAC system is used by first-response and transit agencies to request signal priority, track vehicle locations, improve signal coordination, and increase safety. This is done by combining precise GPS technology with secure FHSS radio communication.

The control head enables vehicle operators to monitor system activity and performance in real time. In addition to other features, drivers may be alerted when priorty requests have timed out and when there is immediate potential for collision.

EMTRAC-equipped vehicles carry a compact, yet rugged, Vehicle Computer Unit (VCU) that is connected to a dual GPS/UHF antenna. The onboard VCU serves as the control center of the vehicle's EMTRAC system, while the connected control head displays system activity. The Program-Capable model enables drivers to adjust system settings as needed.



Control Head Benefits

- **Safety**: Reduce collisions between equipped vehicles responding to the same emergency or on the same route by proactively alerting drivers of potential hazards.
- **Efficiency**: The Program-Capable model is equipped with a USB port, enabling agency personnel to load only intersections and detection zones for specific routes. It is also equipped with an Ethernet port, which may be used to download data or upload firmware updates.
- **Reliability**: The touchscreen models enable drivers to reset timed-out requests to help clear intersections in even gridlock conditions.
- **Flexibility**: The EMTRAC system may be installed on any vehicle type (first-response, buses, LRVs, snow plows, etc.), and control heads may be installed on only select vehicles.

Control Head Features

		 Basic LED	 Basic Touchscreen	 Program-Capable Touchscreen
GPS	Indicates VCU is actively receiving GPS signal	X	X	X
In-Zone	Indicates vehicle is currently in detection zone	X	X	X
Requesting	Indicates VCU is currently requesting signal priority	X	X	X
Time-Out	Indicates priority request has timed out	X	X	X
Active/Standby	Switches system to standby mode for monitoring/testing	X	X	X
Reset Time-Out	Enables driver to reset timed-out priority requests		X	X
Safety Alerts	Warns driver of potential collisions with EMTRAC-equipped vehicles or personnel, as well as if the vehicle is exceeding posted speed limits		X	X
Priority Granted	Indicates that signal priority has been granted		X	X
ETA Reporting	Displays estimated time of arrival to defined points		X	X
Work-Zone Approach	Alerts driver of upcoming work zones		X	X
Vehicle Status	Displays current communication settings, GPS position, and input status		X	X
Log Display	Enables personnel to retrieve and save both Vehicle Logs (through direct connection) and Intersection Activity Logs (wirelessly)			X
Program VCU	Enables personnel to update settings and data on VCUs			X

Specifications

Enclosure Matl: Die-cast Aluminum, 12GA, Black

Cable: 66″ (std) Cable with Circular CPC Connector

	Basic LED	Basic Touchscreen	Program-Capable Touchscreen
Enclosure Dimensions:	1.38″ H x 4.75″ W x 1.5″ D max. (3.49 H x 12.07 W x 3.81 D cm)	4.41″ H x 5.98″ W x 1.3″ D max. (11.2 H x 15.2 W x 3.3 D cm)	4.41″ H x 5.98″ W x 1.3″ D max. (11.2 H x 15.2 W x 3.3 D cm)
Interactive:	No	Yes	Yes
Audio Output:	No	Yes	Yes
Screen Dimensions:	N/A	3.49″ H x 4.63″ W in. (8.86 H x 11.76 W cm)	3.49″ H x 4.63″ W in. (8.86 H x 11.76 W cm)
Screen Resolution:	N/A	640 x 480 TFT LCD	640 x 480 TFT LCD
Power*:	5V DC 25mA max.	8-35V DC, 7W Typical	8-35V DC, 7W Typical
Weight:	0.5 lbs (0.23 kg)	0.83 lbs (0.37 kg)	0.83 lbs (0.37 kg)

*Power supplied through EMTRAC Vehicle Computer Unit