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Cellocator Division
Pointer Telocation Ltd.

CELLOCATOR™ 370-50

VEHICLE EVENT LOGGER
AND TRACKING UNITS

The Cellocator™ 370-50 range of integrated security and monitoring features combine to offer a cost-effective all-in-one vehicle security and communication solution, suitable for all private or commercial applications.



Cellocator™ 370-50

Incorporates the features of the Compact Security with enhanced security capabilities:

- odometer pulse counter
- 11 digital inputs
- +1 analog input and
- 10 outputs including:
 - two onboard 3A and
 - one 6A relays.

The Cellocator™ Compact Security and the 370-50 are the only devices in the marketplace that combines comprehensive security features with impressive fleet management features.



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About Cellocator™ 370-50

The Cellocator™ 370-50 unit is a small end-unit optimized for simple covert installation to avoid detection and tampering. Utilizing GSM/GPRS communication, together with advanced SIRFIII GPS technology, it ensures accurate tracking, location and reliable communications.

The Cellocator™ 370-50 unit can be used as part of Pointer's end-to-end solution, or any custom solution by OEMs, service providers and integrators.

The feature-rich Cellocator™ 370-50 unit enables service providers to offer unique and enhanced combined security and fleet management services, featuring:

- Flexible car alarm operational logic
- Multiple owner identification options
- Real time reporting in case of Alert
- Integrable with an existent remote controller (Vehicle's Comfort System)
- Integrated SIRFIII GPS Technology
- Online event driven reporting
- Full event data logging
- Data Terminal compatible
- Hands-Free compatible
- Dallas button
- Distress button
- Forbidden and preferred GSM operators
- Communication channel redundancy: GPRS+SMS or CSD+SMS
- OTA configurable
- OTA upgradeable
- Gradual motor arrest (automatic or by remote command)
- Multiple discrete I/O
- Tow detection
- Adaptation to different kinds of sensors
- Odometer pulse input
- Driver Identification
- Built in geo-fence support
- Accident detection
- Unique driver behavior analysis
- Advanced Communication Cost Management

Communication

Three Communication Methods: The unit incorporates a GSM/GPRS modem, allowing communication over TCP/IP or UDP/IP, and CSD; all with auto-switching to SMS, which can also be configured to be the primary mode of communication. In addition, Advanced Communication Management, including forbidden and preferred GSM providers, contributes to reduced communication costs in normal and roaming scenarios.

Communication Cost Reduction: Advanced Communication Cost management for regular and roaming scenarios, including preferred and forbidden GSM providers, and different transmission rates as a function of time, speed and distance.

Garmin Integration - The Cellocator™ 370-50 units are integrating with Garmin in-car satellite navigation systems (hereafter, the client) to deliver enhanced driver-side communication capabilities. The integration will allow a central control system to communicate with vehicles via Cellocator™ 370-50 unit and deliver messages to the navigation system's screen connected to it.

NMEA Data Output: Standard GPS-NMEA data output for navigation systems without internal GPS.





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GPS Sensor: A 20-channel SIRFIII GPS sensor provides the best reception sensitivity ensuring fast and accurate vehicle location.

OTA (Over-The-Air) Programming: All 500+ parameters are fully configurable from remote.

OTA (Over-The-Air) Firmware Upgrade: Full remote firmware upgrade for efficient, fast, and low cost customer support.

Mobile Data Terminal (MDT): The MDT supports navigation and two way text messaging from and to the control center.

Hands-free Compatible: The hands-free allows full cell phone functionality, including silent listen-in for special security demands.

Benefits

The Cellocator™ 370-50 unit is an exceptionally low cost, feature-rich, easily integrated and fully configurable product family line that provides the following benefits:

- Enhanced Vehicle Security
- Cost Savings
- Optimized Resource Utilization
- Customer Satisfaction and Competitive Edge
- Odometer Pulses Counter
- Tilt Sensors
- Collision Impact Sensor
- Volume Sensors
- Motion Sensors

The Cellocator™ 370-50 unit has ten out-put & LED:

- 5 open collector outputs (up to 500 mAmp)
- 1 PW/M open collector output (optimized for gradual motor arrest)
- 1Amp output (optimized for siren connection)
- Two 3 Amp outputs (optimized for blinkers control)
- 6 Amp output (optimized for stop lights control)

Specifications

Outputs	5 open collector outputs: up to 500 mA Single 1A output Two of 3A outputs One 6A output
Inputs	11 variable inputs: 1 for ignition, 1 pulse input for odometer connection and the rest for general purpose 2 Analog inputs: Dedicated for battery measurement 1 General purpose analog input: (instead of one of the general purpose inputs) 0-2.5V, 10mV resolution
Communication Methods	TCP/IP or UDP/IP over GPRS; CSD (v.32 or v.110); SMS
Frequency Bands	European 900/1800, American 850/1900, or Quad-Band
GPS Technology	SIRFIIIxTrac 20 receiving channels
Other Interface	RS232 (9600bps), Hands-free support, 1-Wire (Dallas), MDT (Mobile Data Terminal) support, Garmin Integration
Operating Voltage	9-32V
Power Consumption	1 Watt in full operation, 230mWatt in hibernation
Battery	Internal rechargeable, 7.4V, Li-Ion, 700mAh
Dimensions	77.6mm x 106mm x 28.1mm
Weight	0.315kg
Temperature Range	- 20°C to +55°C





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Vehicle Security

Covert installation: The unit's small size allows it to be installed inside the vehicle and thus avoid being discovered and tampered.

Multiple output options – Output options are fully programmable and can be activated OTA.

The Cellocator™ 370-50 unit integrates 6 discrete digital outputs:

- Distress button
- Door/ hood sensors
- Ignition switch sensor
- 3 inputs dedicated for Arm/Disarm detection (integrable with an existent Comfort System)
- 2 analog inputs such as a main battery and backup power source status

Multiple input options: Input options are fully configurable to various priority levels, and can be activated OTA (Over-The-Air) from the central control.

The two dedicated analog inputs continuously monitor the main and backup battery. One additional analog input is available to monitor fuel levels, temperature, pressure and more.

Motor Immobilization: The Security products incorporate several methods to send a remote command to stop the vehicle, including special safety approaches such as gradual deceleration of the vehicle until it reaches full stop, and/or, as approved by many insurance companies; enabling the immobilization command only after the vehicle stops and the switch is OFF for a pre-defined programmable period.

Tow detection: If the unit detects and notifies that the vehicle is moving while the ignition is OFF.

Fleet Management

Advanced Driver Behavior Analysis: The unit is capable of detecting sudden speed and course changes events; configurable separately in four speed ranges.

Driver Identification: Dallas keys for driver identification and full driver activity logging in the control center database. For Fleet and Olympic, the unit can be configured to activate a reminder signal for drivers who forget to identify themselves.

Status request - At any given time, the operator can request an immediate status and location report from the unit.

Real-time Tracking: For continuous tracking of the vehicle, the system transmits constant location and status information to the control center at predefined time intervals, distance intervals, and according to different speeds.





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Real-time Alerts: In the event that any of the vehicle's security inputs are activated, the unit immediately transmits a real-time alert to the control center. Each alert transmission includes information about detailed location, transmission reason, I/O status and power voltage indication (main and back-up).

Online Event Reporting: When GPRS coverage is available, the unit can continuously transmit vehicle status events at user-defined intervals. Each transmission includes: transmission reason (event type), vehicle ID, driver ID, time stamp, detailed location information, speed, heading, direction (for Fleet and CAN), accumulated mileage, I/O status, battery voltage and more.

Event types - Event types include ignition on/off, over-speed start/end, idle speed, elapsed time, elapsed driving distance, distress button activation, navigation start/stop, input sensor activation (such as door opened) and more. All event types can be remotely (OTA) or locally configured.

Idle Transmission: When the vehicle is idle for extended time periods, the system can be configured to transmit a status message at predefined time intervals for a keep-alive indication.

Low Current Consumption: The unit's exceptionally low current consumption extends battery life and significantly extends its operation life span.

Log Memory: Non-volatile memory of up to 2,256 complete times stamped events. Useful in case of loss of communication, or for few daily transmissions. Upon resuming of communication; this data will be transmitted immediately.

Geo-Fence/ Waypoints Support: 16 onboard programmable Geo-Fence and Waypoints. In case the vehicle violates a designated perimeter or enters a predefined prohibited zone, or if it deviates from a fixed route within a preset timeframe, an immediate alert is triggered. These features offer substantial reduction of communication costs, by allowing a lower resolution of transmissions. Options are OTA configurable.

Navigation: The unit provides GPS location and regulated power output, which can be connected to an in-car navigation device or a PDA. Such devices can also be used for exchanging text messages with central control.

External Device Option: External devices such as a terminal, vehicle computer, built-in intelligent alarm system and more; can be connected to the unit via its serial data interface (standard RS232, 9600 BPS). Protocol Transparency: Allows any data received on RS-232 from auxiliary controllers to be transmitted to the control center "as-is".



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For more information about prices and technical knowledge, please contact:

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