



TrimTrac



The TrimTrac Vehicle Locator

Key Features:

- Portable, AA Battery-Powered
- No External Wires or Antennas Needed
- Low or No Installation Costs
- No Custom Programming Required
- Ready-to-Use Water-Resistant Housing
- Quad-band GSM/SMS/GPRS
- Enhanced GPS

Hardware Options:

- Remote GPS Antenna
- Plug-in Modules for:
 - Input Monitoring
 - Output Control
 - External 9-32 VDC Power
- Metal Bracket
- Quick-release Plastic Bracket

Key Capabilities:

- Intelligent Motion-based Reporting
- Runtime Meters
- On-board Geofencing
- Scheduled Hours of Operation
- Start/Stop Reporting
- Odometer and Speed Monitoring
- Arrival/Departure Reporting
- Exception Alert Reporting
- Over-the-Air Programming



Portable, Compact, Affordable

The TrimTrac 1.5 locator is a small, light-weight asset monitoring device that requires little, if any, installation when used in its battery-powered configuration. Different hardware options allow the device to be configured to meet a variety of demanding installation and operational requirements. Motion-based reporting continues to be an important tool in minimizing power consumption and recurring communication costs.

Ready-to-Use, No Custom Programming Required

Simply insert an activated SIM card and batteries and the TrimTrac 1.5 is ready to start reporting position to your designated SMS or GPRS destination address. In its default configuration, reports are sent at 15-minute intervals whenever there is motion; status messages are sent once every 12 hours when the device is at rest. Upon powering up, the device will self-initialize anywhere in the world and start transmitting if an authorized GSM network is available.

Alternately, the unit can be easily re-configured to address any number of more sophisticated applications or, when used with a optional plug-in module, be connected to external power, monitor multiple inputs and control other systems or devices, such as door locks, immobilizers and remote start systems.

While a basic understanding of the different TrimTrac 1.5 operational states is helpful, configuring the TrimTrac 1.5 does not require a highly-skilled software programmer or technician.

Cost-effective, Universally Available Communications

The TrimTrac 1.5 takes advantage of the near universal availability of GSM SMS text messages while also leveraging cost-effective GPRS data rate plans. Typical SMS plans offer very extensive inter-network roaming capabilities, both within a host country and internationally. SMS plans also tend to be too pricey for applications requiring more than a few reports per day. GPRS data plans, on the other hand, typically allow for lower recurring communication costs although GPRS coverage and roaming can be restricted in some areas. The TrimTrac 1.5 takes advantage of both technologies by automatically selecting GPRS wherever such service is available, while relying upon SMS text messages as backup when outside GPRS coverage. This helps minimize recurring communication costs while allowing the greatest coverage possible.

Hardware Options, Expanded Capabilities

A number of different hardware options are available to enhance the suitability of the TrimTrac 1.5 to particular application requirements. These options include a miniature external GPS antenna that allows for more discrete, protected installation of the TrimTrac 1.5.

In addition, two plug-in modules are offered; both provide connection to external 9-32 VDC power to eliminate the need to change batteries and can monitor inputs of three different priority levels. The I/O & Power module also provides two outputs that can be used to control other on-board devices or systems, such as door locks, immobilizers and remote start systems.

To address different mounting requirements, two mounting brackets are offered. A metal bracket is available for more permanent

The TrimTrac Vehicle Locator

installations while a “quick-release” style plastic bracket is used when rapid insertion and removal of the TrimTrac 1.5 is desired. This is particularly useful when a battery-powered TrimTrac 1.5 is routinely moved from one vehicle to another.

Enhanced Functional Capabilities

Position reporting triggered by motion continues to be an important attribute of the TrimTrac 1.5; however, this basic capability is now augmented by a range of powerful new functional enhancements.

On-board Geo-fencing

The TrimTrac 1.5 supports on-board geofence enforcement. A geofence can be established during initial activation of the device, or established on-the-fly via over-the-air commands or via operation of a local switch connected to the TrimTrac 1.5 input module. The geo-fence can be defined to report whenever the device is inside or outside the defined area or upon it entering or exiting a geo-fence area. These capabilities allow the device to be “locked down” where needed without creating nuisance reports during normal operation.

Scheduled Hours of Operation

Establishes how the device will operate during daily hours of normal operation. During normal hours of operation, position reports may not be needed unless, for instance, a geo-fence has been violated. Outside normal hours of operation, however, any motion of an asset may be considered “unauthorized” and it would be desirable for the TrimTrac 1.5 to report this motion and its current position. Monitoring of equipment at a construction site is an application example that would use this Schedule Hours of Operation feature, possibly in conjunction with a geo-fence.

Runtime Meters (2)

Equipment maintenance schedules are often managed based upon accumulated run-time hours. The TrimTrac 1.5 offers two resettable runtime meters: one is triggered by motion and if a plug-in module is used, the other can be hardwired to sensor, such as an oil pressure switch.

Start/Stop Reporting Mode

This mode causes the TrimTrac 1.5 to transmit one position report upon first motion and one position report after coming to rest. There are no reports transmitted in between even though the device may be logging, but not transmitting, positions in the background. This provides a historical log that could be queried should the need arise while minimizing communication costs in the mean time.

Automatic Log Dump

When GSM coverage becomes available after a period of no coverage, TrimTrac can be configured to transmit messages that had been logged while there had been no GSM coverage. This feature would be used when the TrimTrac 1.5 is expected to come in and out of GSM coverage areas.

Sample Target Applications:

- Unpowered Asset Monitoring
- Loss Prevention & Security
- Untethered Trailer Tracking
- Vehicle Track and Trace
- Equipment Management
- Fixed Asset Monitoring
- First-time Teenage Drivers
- Families with Multiple Vehicles for Teens to Drive





Product Information

TrimTrac 1.5 Product Information

GSM Specifications

GSM	GPRS Multislot Class 10, Class B Operation Short Message Service (SMS)
850/1900/900/1800 Class	4 (2W) at 850/900 MHz (EGSM) Class 1 (1W) at DCS1800/PCS1900 MHz
SIM Type Approvals	1.8V/3.OV PTCRB and GCF CC FCC Parts 15 and 24 Industry Canada CE MARK E MARK ECR & TTE Type Examination

GSM Specifications

General Sensitivity Accuracy	L1 (1575.42 MHz) frequency. C/A Code Minimum -136 dBm Acquisition
Acquisition Times	Horizontal: <6 meters Altitude: <11 meters Velocity: 0.06 m/sec Signal Power -130 dBm -136 dBm Warm Start (50%) <39 sec <80 sec
Dynamics	Acceleration: 4 g (39.2 m/sec ²) Motional Jerk: 20 m/sec ³
Datum	WGS-84

Environmental Specifications (1)

Temperature	Normal Operating: -10 to 55°C Max. Operating (2) : -20 to 75°C Storage: -40 to 85°C
Humidity Casing	5% to 95% RH non-condensing at +40° C IP55 except when used with external GPS antenna
Vibration (3)	0.008 g ² /Hz 5 to 20Hz 005 g ² /Hz 20 to 100 Hz -3 dB/octave 100 to 900 Hz
Shock (3)	Operational: 40 g for 11 m/sec Non-Operational: 75 g for 6 m/sec

Physical Specifications

Assembly Size	Injection molded plastic 143.3 mm x 76.2 mm x 36.7 mm 5.78" x 2.99" x 1.44"
Weight	205 grams (7.2 oz) not including batteries 300 grams (10.5 oz) with 4 AA alkaline batteries

Electrical Characteristics

Primary Power	Four AA alkaline batteries (not included) or 9-32 VDC(3)
Battery Life	Up to 90 days (10 reports/day, -130 dBm GPS)
Connectors	None unless used with external GPS antenna or Plug-in module

Ordering Information and Accessories

TrimTrac 1.5	Includes basic unit, battery pack for four AA batteries and for Vehicle Adapter
Vehicle Adapter Module	Replaces standard battery pack and allows connection to external 9-32 VDC power supply and three types of switched inputs. Includes rechargeable battery to allow limited operation after loss of external power
Output Control Module	Same as above plus two 500 mA low-side driver outputs
Remote GPS Antenna	Active micropatch antenna with magnetic mount and 5m cable
Provisioning Kit	Provisioning Modules used to commission TrimTrac locator prior to initial use. Includes Manual CD-ROM, USB A-to-A data cable for connection to 058 (2.0) port on PC
Starter Kit	Complete kit consisting of one each of all of the above plus preferential technical support
Mounting Bracket	Metal bracket for permanent or rugged installations
Clip-in Bracket	Quick release plastic holster-style bracket

Customer Supplied Items

- Active SIM card
- AA batteries
- Input switches and interface devices
- Installation compliances

For More Information

- Visit www.TrackerTEL.com
- Email info@TrackerTEL.com
- Call 1-888 968-8416 or Fax 972-484-8919

Notes:

- (1) Excluding batteries
- (2) Operational except deviations from GSM specification may occur
- (3) Requires a Plug-in module

TrackerTEL is not responsible for the operation or failure of operation of GPS satellites or GSM networks or the availability of GES satellite or GSM signals.
Specifications subject to change without notice.