

# SAT 101



# SAT 101 total control 24 hours each and every day

**SAT 101 gives every logistics manager total fleet control worldwide. One compact system provides reliable, responsive and secure information management and messaging to:**

- **trace, track and communicate with vehicles**
- **trace, track and monitor trailers and loads**
- **secure fleet and client loads and safeguard people, 24 hours a day, anywhere in the world**

## global coverage

The Satamatics service operates over Inmarsat satellites providing global coverage. The SAT 101 terminal makes maximum use of the satellites, particularly at the northern and southern edges of the coverage area's. Extensive research & development has enabled Satamatics to produce a terminal that can operate at

elevations as low as 5° above the horizon to ensure unrivalled levels of operation wherever it is located.

## tracking

The SAT 101 terminal provides global tracking capability which integrates a Global Positioning System (GPS) and communication technology in one compact system. The integrated 12-channel GPS receiver provides accurate location information, normally within 4 metres and typically time-to-first-fix is 45 seconds from a cold start, and less than 8 seconds from a hot start. It can transmit a message every time the vehicle is started or, in the case of trailer tracking, whenever the trailer and tractor are coupled. Whilst the vehicle or trailer is in use, the SAT 101 transmits a location at regular intervals. When the vehicle is switched off or the trailer uncoupled, the unique rechargeable battery pack enables the SAT 101 to give the fleet operator the exact final location of his assets.


## tracing

All data passes between the operators' office and each SAT 101 via the Satamatics Message Handling Switch (MHS). This makes data available for storage within the operators' preferred mapping and/or fleet management systems.

## monitoring

In addition to connections for 9.6V to 30V DC power and a spring-loaded sealed contact battery pack, the SAT 101 is equipped with eight general purpose I/O connections. Each connection may be configured as an analogue input or output, or digital input or output.

This enables SAT 101 to provide an extensive range of event monitoring, from simple events, such as cargo door operation to more complex tasks such as recording and monitoring load temperatures.

A blurred image of a red truck with a white trailer driving across a green field under a blue sky. The motion blur is horizontal, suggesting the truck is moving quickly from left to right.

“ one compact system, one complete  
solution, for all secure vehicle tracking  
applications worldwide ”

# secure reliable technology

## security

As an independent satellite communications device, SAT 101 does not utilise typical terrestrial communications and is not restricted to terrestrial radio coverage patterns. The Input/Output capabilities can be configured, for example, to include a panic button. Using the button an alarm message, including the current location, can be sent to the operator's office to initiate emergency procedures.

## messaging

Not content with eight general I/O connections, the Satamatics design team has incorporated a serial port interface that can be configured as either RS232 or RS485. This provides a wealth of interface choices especially for messaging or mobile data transfer. Utilising canned messages and a word dictionary, the SAT 101 can be used as a two-way data communications device.

## complete flexibility

This extensive range of connections and power options,

which also includes provision for solar panel input, makes the SAT 101 the most flexible data terminal available on the market. Configuring and programming the SAT 101 couldn't be easier using the Satamatics script function. Scripts can be developed quickly and easily to provide the range of interactions required by the fleet operator. The scripts can be loaded into the SAT 101 via the serial port in seconds; operators can start with basic functions, such as tracking, and simply update the scripts as requirements increase.

## asset utilisation

Freight transportation, whether by road, rail or inter-modal, increases year-on-year whilst pressure on operators to reduce charges continues. Asset management by reducing down time and empty running is essential to achieve greater operational efficiency. The SAT 101 provides a global tool to facilitate asset management, ensuring that the use of costly assets is optimised. To ensure that terminals are suitable for use in a vehicular environment, the SAT 101 has been designed, tested and declared to conform with

EN 301 489-1 v1.2.1(2002-11) and carries the relevant 'e' mark. Knowing the location and status of vehicles, trailers and rolling stock 24 hours a day, 7 days a week, anywhere in the world enables more efficient planning. Including a messaging terminal provides the opportunity for efficient fleet management and ensures that the all-important back loads are captured in a timely manner.

## operational management

Knowing precisely when a vehicle or trailer arrives at and leaves a depot enables more precise planning and the SAT 101 can be programmed to notify the operator's office automatically through the use of a flexible and comprehensive geo-fencing function. Details of the area can be programmed into the SAT 101 and each time the vehicle or trailer enters or leaves the geo-fenced area the SAT 101 can transmit a message. Geo-fencing can be used in a number of ways to cover the general area of operation. This is particularly useful for multi-drop carriers working within a given area, route boundaries, depot locations and other management and security functions.

SAT 101



# true global service and support

## total commitment

Satamatics provides a global telematics information operation committed to total support and service worldwide.

All Satamatics products and software meet the highest standards for communications and electronics, supported 24/7 by support teams in Europe and the Americas.

## sound experience

Satamatics has decades of experience in the telematics business, delivering a variety of satellite-based security, tracking and information systems. Thousands of assets throughout the world already depend on Satamatics-based applications.

## applications support and training

Dedicated applications design engineering teams at Satamatics provide a customised solutions service for applications service providers in support of their end users, to give complete security of operation and technical advice at all times. Satamatics provides complete training packages for applications service providers and users.

## solid infrastructure

Satamatics provides unique 'end-to-end' communication solutions, from vehicle to desktop, supported by a global network of satellite gateways. A dedicated, secure data

processing operation with its own high-speed Internet servers provides a high integrity Internet data transmission service.

## information management

Every user of Satamatics products and services benefits from advanced information technology that pre-processes all data, so that users get the information when they want it, where they want it and in an easily understood and easy to use format.

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hours each and every day

# SAT 101



antenna unit



SAT 101  
communications processor





**Satamatics Limited  
Corporate Head Office**

Gloucester Road  
Tewkesbury  
Gloucestershire  
GL20 5TT  
UK  
Tel: +44 (0)1684 278610  
Fax: +44 (0)1684 278611

[www.satamatics.com](http://www.satamatics.com)  
[info@satamatics.com](mailto:info@satamatics.com)

**Satamatics USA**  
Tel: +1 877 SAT MATD  
Tel: +1 877 728 6283  
Fax: +1 360 246 7263

[www.satamaticususa.com](http://www.satamaticususa.com)  
[info@satamaticususa.com](mailto:info@satamaticususa.com)