erco&gener

L'esprit Modem

User Guide

GenTrack 35e

Reference : EG_GenTrack35e_1034_UG_000_UK

Revision : 001

Date : 31/03/2010

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Document history

Revision	Modifications	Author	Date
000	CREATION	F. LE BRETON	09/12/09
001	Introduction on the configuration tool : GenTrack Config Updated WARNING section Updated new messages with the embedded application EaseTrack V1.10	BBO	31/03/10

The main modifications in this document compared to its previous version are easily identifiable on a screen by the blue color of the text.

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Presentation

Entirely dedicated to goods security and tracking (containers, trailers), the GenTrack 35e allows to associate the GSM/GPRS and GPS functions in a single robust waterproof (IP 66) case.
Autonomous, the GenTrack 35e integrates GSM and GPS antennas as well as a long life battery, associated with an optimized management of the energy. The GPS data may be transmitted by SMS, data GSM or GPRS.
The GenTrack 35e is Quad-Band (850/900/1800/1900 MHz) GSM/GPRS Class 10. Its GPS solution with high sensitivity and quick acquisition, coupled with the A-GPS, ensures the data collection in difficult environmental conditions.
Its IP connectivity protocols (TCP) integrated in the embedded application "EaseTrack", (locally or remotely programmable) allow the rapid realization of high added value embedded telematic solutions.

The GenTrack 35e provides an operating system '**EGM**' (Erco & Gener Middleware) allowing the development of your own applications.

For more information concerning this document, ERCO & GENER puts at your disposal the following elements:

- Commands List
- Application Note
- Release Note
- Client support client (Hot-Line)

Warning

- **Erco&Gener advises to read carefully all the documents concerning the GenTrack products (User Guide, Application Notes, Command List).**

- **ERCO & GENER cannot be held responsible for :**
  - **The problems due to an inappropriate use of the GenTrack35e.**
  - **The problems due to a wrong configuration**
  - **The problems due to a wrong use of an embedded software application developed and supplied by a third party.**
  - **The dysfunctions due to the absence or a bad coverage of the GSM, GPRS and GPS networks.**
  - **The dysfunctions if the product is used for the watching of physical persons where human life is engaged.**

- **ERCO & GENER reserves the right to modify the functions of its products "GenTrack35e", "EaseTrack" and "GenTrack Config" without previous notice.**

- The casing can be opened by the user only to set the parameters, to program the device and to insert or remove the SIM card.
- For any functioning, the casing must be closed.
- Except the non-rechargeable battery replacement, no internal part can be repaired by the user. The **GenTrack 35e** must be returned to the manufacturer for any repair.
- The **GenTrack 35e** must be placed in a normally ventilated area, out of sources of heat.

- Scrap the worn non-rechargeable battery according to instructions.

Copyright

1 References

1.1 Referred documents

Commands List of the embedded application "EaseTrack" developed by ERCO & GENER:

EG_EaseTrack_01_CL_xxx_yy

Software updating procedure:

EG_GenTrack35e_1034_UP-AE_xxx_yy

Application Note: Tracking mode configuration for the GenTrack35e:

EG_TRACKING_GenTrack35e_AN055_xxx_yy

GSM reference documents:

- GSM 07.05.
- GSM 07.07.

1.2 Appellations and Abbreviations

- The terms "**Balise, Unit or Module**" refer to a **GenTrack 35e**

AC	Alternative Current
ACM	Accumulated Call Meter
A-GPS	Assisted GPS
AMR	Adaptive Multi-Rate
AOB	Application On-Board
AT	Attention (prefix for modem commands)
BTS	Base Transceiver Station
CLK	ClocK
CMOS	Complementary Metal Oxide Semiconductor
CS	Coding Scheme
CTS	Clear To Send
dB	Decibel
dBc	Decibel relative to the Carrier power
dBi	Decibel relative to an Isotropic radiator
dBm	Decibel relative to one milliwatt
DC	Direct Current
EFR	Enhanced Full Rate
EGM	Erco Gener Middleware
E-GSM	Extended GSM
EMC	ElectroMagnetic Compatibility
EMI	ElectroMagnetic Interference
ESD	ElectroStatic Discharges
ETSI	European Telecommunications Standards Institute
FIT	Series of connectors (micro-FIT)
FR	Full Rate
FTA	Full Type Approval
FTP	File Transfert Protocol
GCF	Global Certification Forum
GND	GrouND
GPIO	General Purpose Input Output
GPRS	General Packet Radio Service
GPS	Global Positioning System

GSM	Global System for Mobile communications
HR	Half Rate
I	Input
IEC	International Electrotechnical Commission
IMEI	International Mobile Equipment Identification
I/O	Input / Output
LED	Light Emitting Diode
LLC	Low Level Command
MAX	MAXimum
ME	Mobile Equipment
MIC	MICrophone
Micro FIT	Family of connectors from Molex
MIN	MINimum
MNP	Microcom Networking Protocol
MO	Mobile Originated
MS	Mobile Station
MT	Mobile Terminated
NOM	NOMinal
O	Output
Pa	Pascal (for speaker sound pressure measurements)
PBCCH	Packet Broadcast Control Channel
PC	Personal Computer
PCL	Power Control Level
PDP	Packet Data Protocol
PIN	Personal Identity Number
PLMN	Public Land Mobile Network
PUK	Personal Unblocking Key
RF	Radio Frequency
RFI	Radio Frequency Interference
RI	Ring Indicator
RMS	Root Mean Square
RTS	Request To Send
RX	Receive
SIM	Subscriber Identification Module
SMA	SubMiniature version A RF connector
SMB	SubMiniature version B RF connector
SMS	Short Message Service
SNR	Signal-to-Noise Ratio
SNTP	Simple Network Time Protocol
SPI	Serial Peripheral Interface
SPL	Sound Pressure Level
SPK	SpeaKer
SRAM	Static RAM
TCP/IP	Transmission Control Protocol / Internet Protocol
TDMA	Time Division Multiple Access
TU	Typical Urban fading profile
TUHigh	Typical Urban, High speed fading profile
TX	Transmit
TYP	TYPical
UTC	Universal Time Clock
VSWR	Voltage Stationary Wave Ratio

2 Packaging

2.1 GenTrack 35e (only)

2.1.1 Content

By default, it is supplied with:

- The GenTrack 35e,
- A technical sheet (Instructions Sheet).

2.1.2 Cardboard packaging

External dimensions of the modem packaging:

- Width: 163 mm,
- Height: 66 mm,
- Length: 295 mm.

A packaging label is stuck on the case. It shows:

- The ERCO & GENER logo,
- The product reference: GenTrack 35e,
- The CE and RoHS Compliant marks,
- The IMEI barcode with 15 digits.

2.1.3 Casing labels

On the standard casing, 2 production labels show the following information:

- The mark GenTrack 35e,
- The mark Made by Erco & Gener,
- The barcode of the IMEI with 15 digits,
- The marks CE and DEEE.

2.2 Kit GenTrack 35e

The GenTrack 35e can be directly supplied packaged with all the accessories:

Kit GenTrack 35e / Ref: 4408100028

2.2.1 Content of the Kit GenTrack 35e

By default, the Kit GenTrack 35e is supplied with:

- a GenTrack 35e,
- a technical sheet (Instructions Sheet),
- an external power supply 230VAC / 4VDC on 2-points connector (ref : 0471411001),
- a cable RS232 9pts M – 9pts F / 2m (ref: 4404000210),
- a CD with the technical documents of the GenTrack 35e.

2.2.2 Packaging cardboard

The external dimensions of the modem packaging are:

- Width: 163 mm,
- Height: 66 mm,
- Length: 295 mm.

A label is stuck on the rear side of the packaging. It shows:

- The logo ERCO & GENER,
- The product reference: GenTrack 35e,
- The mark CE and RoHS Compliant,
- The IMEI barcode with 15 digits.

2.3 Development Kit GenTrack 35e

For the development, the GenTrack 35e can be directly supplied with all the necessary accessories (Ref: **4408100029**)

2.3.1 Content of the Development Kit GenTrack 35e

By default, the Development Kit GenTrack 35e is supplied with:

- a GenTrack 35e,
- a technical sheet (Instructions Sheet),
- an external power supply 230VAC / 4VDC on 2-points connector (ref: 0471411001),
- a cable RS232 9pts M – 9pts F / 2m (ref: 4404000210),
- A development probe ATMEL with accessories and documents (ref: 7030000000),
- a CD of Development Kit **EGM** (**E**rco **G**ener **M**iddleware),
- a CD with the technical documents of the GenTrack 35e.

2.3.2 Cardboard packaging

The external dimensions of the modem packaging are:

- Width: 212 mm,
- Height: 70 mm,
- Length: 384 mm.

A label is stuck on the rear side of the packaging. It shows:

- The logo ERCO & GENER,
- The product reference: GenTrack 35e,
- The mark CE and RoHS Compliant,
- The IMEI barcode with 15 digits.

3 General presentation

3.1 Description

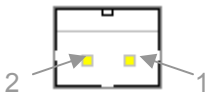
Internal description of the GenTrack 35e:

3.2 External connections

WARNING: The GenTrack 35e can be powered only by non-rechargeable Lithium Battery 3.6V supplied, or by the option 4VDC power supply.

3.2.1 Supply connector 2pts male

On the GenTrack 35e board, the supply connector 2 pts male is used to connect the Lithium battery 3.6V supplied or the power supply option.

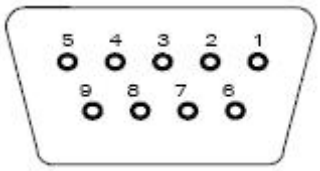


Pin N°	Signal
1	+VDC
2	GND

WARNING: The power voltage must not exceed **4,1VDC**

3.2.1 Sub D 9-pin female connector

The Sub D 9-pin female connector is used for the RS232 serial link connection.

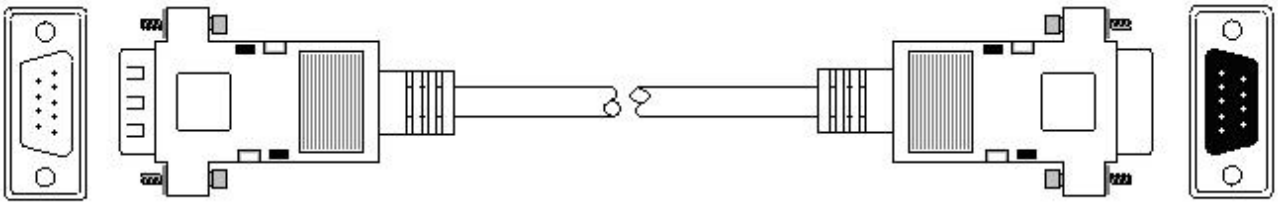


Pin N°	Name	Circuit (V24 – RS232C)	Remarks	I/O
1			Not wired	
2	Data reception	104 – RD – RXD		O
3	Data transmission	103 – ED – TXD		I
4	Data terminal ready	108/2 – TDP – DTR	RS232 ON/OFF	I
5	Signalization ground	102 – TS – GND		-
6			Not wired	
7	Request to send	105 – DPE – RTS	RTS ON : Go in configuration mode	I
8			Not wired	
9			Not wired	

3.3 Accessories supplied in the Kit

3.3.1 RS232 cable

The 9pts M/F straight cable allows the dialogue via the RS232 between the GenTrack 35e and a communication terminal.



Component	Characteristics
9pts Male/Female straight cables	Supplier : ASSMANN
	Length ≈ 2m
	9 wires
	Lockings

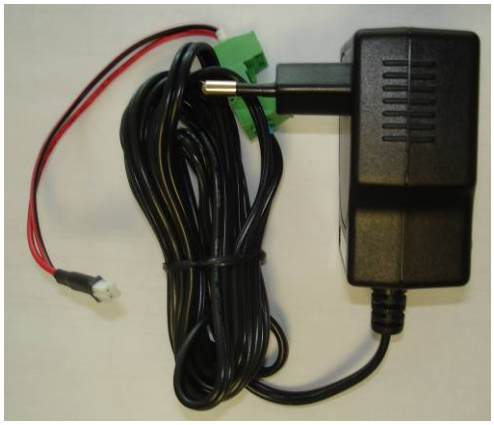
Pin N°	Name	Circuit (V24 – RS232C)
1	Signal detection	109 – DS – DCD
2	Data reception	104 – RD – RXD
3	Data transmission	103 – ED – TXD
4	Data Terminal ready	108/2 – TDP – DTR
5	Signalization ground	102 – TS – GND
6	Data set ready	107 – PDP – DSR
7	Request to send	105 – DPE – RTS
8	Ready to send	106 – PAE – CTS
9	Ring indicator	125 – IA – RI

3.3.2 Power supply

This power supply 230 Vac / 4 Vdc – 2.5 A with 2pts straight female connector allows the direct supply of the GenTrack 35e.

This external switcher power supply is compact and light; it is equipped with a plug which complies with the European standards and a 2pts straight female connector to connect directly on the GenTrack 35e board.

AC input voltage	90-264 Vac / 2.5 A at 47 to 63 Hz
DC output voltage	4 Vdc ± 7% 2 A
Operating temperature	0 to +70 °C
Relative humidity	5% - 95%RH
Standards	CE – CB - EN60950-1- UL94V-1
Cable length	2m ±15cm
Output connector	Female 2pts connector for GenTrack 35e
Dimensions	65.1 x 55 x 65 mm
Weight	140 gr



4 Characteristics and Services

The GenTrack 35e is a portable equipment which allows to store positions (with/without SIM card) and to transmit GPS positions via the GSM network by SMS or by GPRS link.
By default, the GenTrack 35e is supplied with an embedded application "EaseTrack" developed by ERCO & GENER which allows, after having set the parameters, a use in the following modes : TRANCKING, GEOFENCING, move and shock detection.

ERCO & GENER offers a software tool called "**GenTrack Config**". This tool is provided as a Windows executable. It is available on the CD supplied with the kit GenTrack or can be downloaded from our website: www.ercogener.com

ERCO & GENER also proposes an operating system '**EGM**' (ERCO & GENER Middleware) which allows the development of embedded applications for the GenTrack 35e.
EGM *development kit and trainings, contact us*

4.1 GSM / GPRS functions:

- E-GSM Quad-bands 850/900/1800/1900 MHz
- ETSI GSM Phase 2+
- Class 4 (2W @ 850 / 900 MHz)
- Class 1 (1W @ 1800 / 1900 MHz)
- GPRS Class 10 (Up to 4Rx / 2Tx)
- Supports PBCCH, Coding scheme: CS1 to CS4
- Library (PPP, TCP, UDP, FTP)
- Asynchronous data circuit, transparent and non-transparent up to 14400 bits/s
- SMS point to point MT/MO and SMS CB (Cell Broadcast)

4.2 GPS function

- 50-channel µBlox NEO5 receiver
- Precision:
  - 2,5 meters CEP
  - 2m CEP (DGPS SBAS)
  - A-GPS
- Acquisition time:
  - Hot start : < 3 sec
  - Cold start : < 32 sec
- Reacquisition time after loss of signal: < 1 s
- High sensitivity: -160 dBm in Tracking
- Protocols: NMEA-0183 Input/output - UBX

WARNING: The GPS module has an internal real time clock (RTC).
To calibrate this date and this hour, the GPS module must have captured a valid position.
This clock is saved as long as the battery is not disconnected.

4.3 Functions

- A-GPS (Assisted GPS)
- Management of energy and configurable events
- 3-axis accelerometer (±2g / ±8g) :
  - Movements
  - Chocks
- Storage capacity: 10 000 frames with the current "EaseTrack" application (evolution with EGM development)
- Zones management (Geofencing)
- AT commands

4.4 Interfaces

- Integrated GSM / GPS antennas
- Non-rechargeable Lithium battery 3.6 Vdc 13AH
- SIM reader (SIM 1,8 / 3V)
- 3 configurable Leds (GSM, GPS, Processor)
- Configuration (serial link)

4.5 Autonomy

IMPORTANT: The GenTrack 35e autonomy mainly depends on the functioning mode and the selected parameters.

In the basic application "EaseTrack" (*) provided with the GenTrack 35e, the unit can be programmed according to several criteria like for example sending or not the data in GPRS TCP/IP, keeping it powered on or not between two measures of the GPS module …etc. The autonomy also depends on the GPS coverage. The use in "open sky" and the activation of the A-GPS (Assisted GPS) are strongly recommended.

(*)The functioning of the application "EaseTrack" is described in the documents:

EG_EaseTrack_01_CL_xxx_yy

EG_TRACKING_GenTrack35e_AN055_xxx_yy

Note: A software tool for autonomy simulation will be soon available.

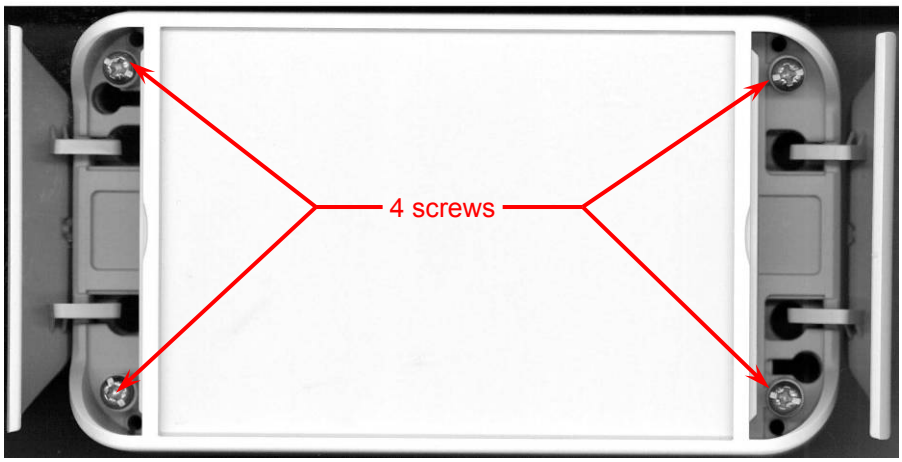
5 Using the GenTrack 35e

5.1 Starting with the GenTrack 35e

5.1.1 Installation of the SIM card

The GenTrack 35e is supplied without SIM card. The installation of the SIM card requires the opening of the unit.

- 77
- Remove the 4 locking screws on the front side of the equipment.



- Insert the SIM card in the SIM reader, the SIM contacts bellow and the cut angle towards the outside of the casing.

WARNING: The PIN code of the SIM card must be unlocked (Cancel the request for PIN code).

- Connect the battery.
- Close the device.

5.1.2 Status of the GenTrack 35e when powering on

When powering on (connection of the battery) and if the two serial signals RTS and DTR are set to high level, the EGM heart is operational and the CPU DEL (DEL3) is flashing at 1hz.

5.1.3 Configuration of the GenTrack 35e (by default)

By default, the GenTrack 35e is configured as follows:

- Bits per second : **115200 bps,**
- Data Bits : **8 bits,**
- Parity : **without parity,**
- Stop Bits : **1,**
- Flow control : **None.**

5.1.4 Installation of the GenTrack 35e with the RS232 serial port

To use the GenTrack 35e with the serial port, it is advised to use the accessories supplied by ERCO & GENER in the Kit.

The accessories to use with the GenTrack 35e are:

- The serial cable RS232 Sub-D 9pts M/F,
- The referenced external power supply or 3.6V Lithium battery placed inside the GenTrack 35e.

5.1.5 Checking the serial communication with the GenTrack 35e

To check the communication, connect the serial link between the terminal (DTE) and the GenTrack 35e Sub-D connector (DCE).

Important: To activate the serial link of the GenTrack 35e, the terminal must position its DTR and RTS signals high. Without these 2 signals, it is impossible to go in configuration mode.

5.1.5.1 With the configuration tool "GenTrack Config"

Please refer to the dedicated User Guide of the software tool "**GenTrack Config**" :

EG_GenTrack Config_UG_xxx_yy.pdf

5.1.5.2 With a terminal software tool like HyperTerminal®

Configure the COM port of the DTE as follows:

- Bits per second : **115200 bps,**
- Data Bits : **8 bits,**
- Parity : **without parity,**
- Stop Bits : **1,**
- Flow control : **None,**
- DTR : **ON,**
- RTS : **ON.**

Press the RESET button and wait for the initialization time of the CPU processor (few seconds).

There are 2 cases of display:

A – The device contains the standard application "EaseTrack":

The unit will return the following signature: (example of display):

```
**********************************************************
EaseTrack-01 V1.10, Date: Thu Jan 28 14:19:53     2010: initType = 0x0000

*** BALISE READY - active = 0, func = 2 ***
```

To read again the version of the embedded application:

Command	Response	Interpretation
ATi8	API: EaseTrack-01 V1.10, Date: Thu Jan 28 14:19:53 2010 OK	The activated and loaded version is V1.10

When the GenTrack 35e replies to the activated version, we can consider that the communication with the GenTrack 35e has been correctly established.

For more information about the AT commands proposed in the basic application "EaseTrack" of the GenTrack 35e, see the Command List of the GenTrack 35e: **EG_EaseTrack_01_CL_xxx_yy**

B – If the device does not have any application, it will return the Boot-Loader menu:

Menu by default when there is no application in the unit (example):

```
Bootloader V2.31T2 UA Gentrack v2 (HW02)
Ren v2.21 hw 35
Power supply voltage =  4,05 V
 1 - Update application
 2 - Erase objects
 M - GSM direct access
 A - Advanced
 P - Power off
 E - Exit
```

For more information about the loading of an application in the GenTrack 35e, see the document :

EG_GenTrack35e_1034_UP-AE_xxx_yy

5.2 RESET button of the GenTrack 35e

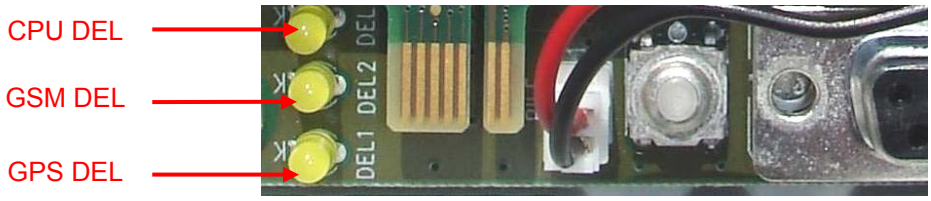
This button is reserved for the EGM development.

5.3 DELs of the GenTrack 35e

Important :

The operation mode of the 3 lights directly linked to the embedded application "**EaseTrack**".

Hereafter the DEL operation mode with the application **EaseTrack**:



5.3.1 GPS DEL (DEL1)

The powering-on status of the GPS module is given by the GPS DEL also called DEL1.

The table hereunder explains the signification of the different available status of the GPS DEL.

GPS LED status	GenTrack 35e status
Off	The GPS module of the GenTrack 35e is off.
Slow flashing	(100ms / 1s) The GPS module of the GenTrack 35e is ON and tries to get a Fix GPS position.
Fast flashing	(100ms / 500ms) The GPS module of the GenTrack 35e is ON and a fix GPS position has been found.

This DEL is available for the user through the operating system '**EGM**'.

5.3.2 GSM DEL (DEL2)

The powering-on status of the GSM module is given by the GSM DEL also called DEL2.
The table hereunder explains the signification of the different available status of the GSM DEL.

GSM LED status	GenTrack 35e status
Off	The GSM module of the GenTrack 35e is off.
Fix ON	The GSM module of the GenTrack 35e is ON, without any attachment to the GSM/GPRS network.
Slow flashing	(200ms / 2,2s) The GSM module of the GenTrack 35e is ON and attached to the GSM/GPRS network.
Fast flashing	(200ms / 800ms) The GSM module of the GenTrack 35e is ON and in communication mode.

This DEL is available for the user through the operating system '**EGM**'.

5.3.3 CPU DEL (DEL3)

The status of the embedded processor is given by the CPU DEL also called DEL3.
The table hereunder explains the signification of the different available status of the CPU DEL.

CPU LED status	GenTrack 35e status
Off	The embedded processor of the GenTrack 35e is off.
Very slow flashing	(100ms / 10s) The balise is activated (running mode) and processor is in idle mode.
Fast flashing	(100ms / 1s) The embedded processor of the GenTrack 35e is running.

This DEL is available for the user through the operating system '**EGM**'.

6 Trouble shooting

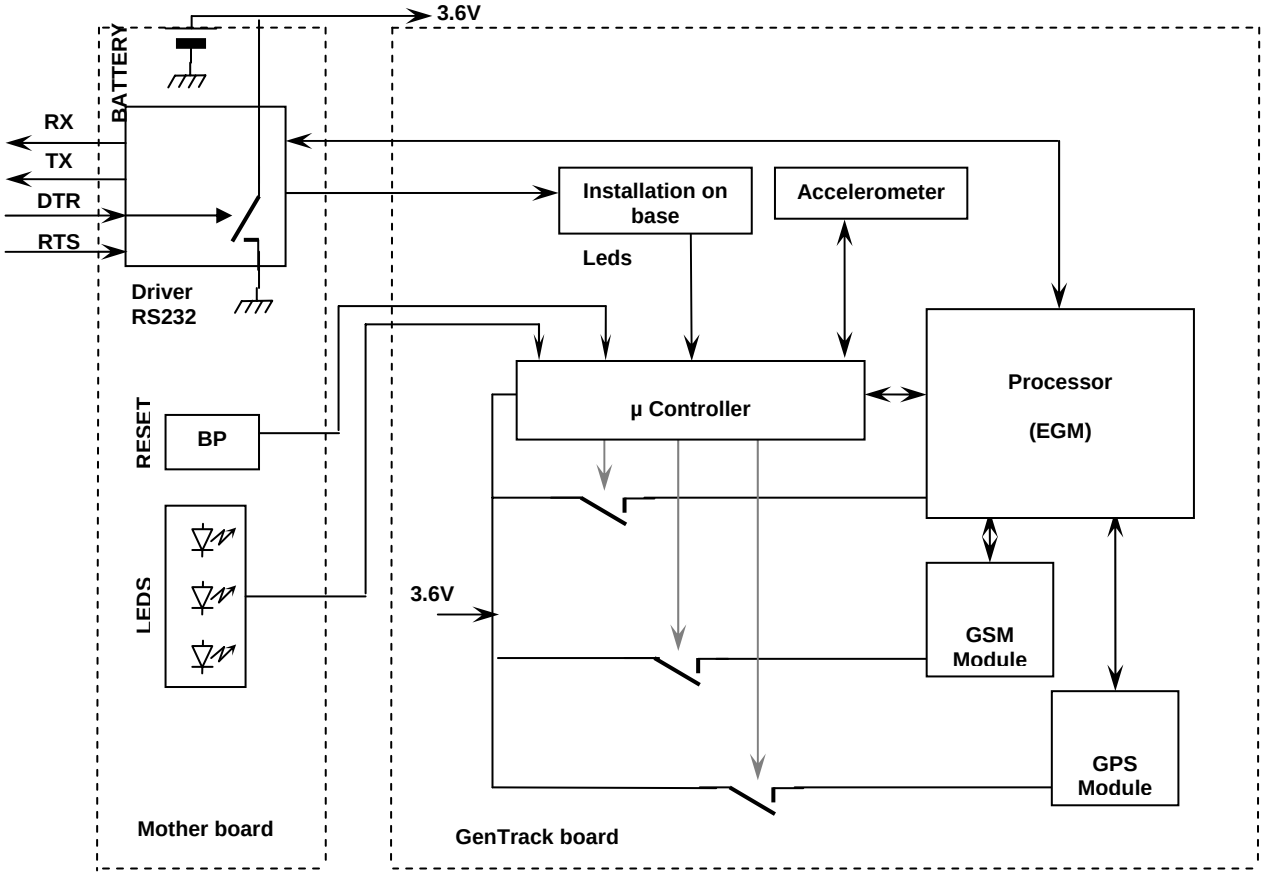
If the GenTrack 35e does not reply to AT commands via the serial link, see the table hereunder for the reasons and their solutions.

Table: Solutions when there is no connection between the GenTrack 35e and the serial link

If the GenTrack 35e	Check:	Action
Returns nothing	Is the GenTrack 35e correctly powered?	Ensure that the battery or the regulated external power supply is connected to the modem and supplies a tension in the correct range (paragraph ***8.1 characteristics***).
	Is the serial cable connected on both sides (PC side and Sub-D 9pts connector)?	Check the connection of the serial cable and check that signals RTS and DTR are set to high.
	Is the COM port correctly selected in the communication terminal?	Check the affectation of the COM port used and the possible conflicts identified by the operating system.
Returns nothing or random characters	Is the communication terminal correctly configured on the PC?	Ensure that the configuration of the communication terminal corresponds with the one of the GenTrack 35e : Speed = 115200 bps Data bits = 8 / Parity = none Stop bits = 1 / Flow control = None
	Is there another application running that creates a conflict during the access to the communication port?	Close the conflicting application.

7 Functional description

7.1 Architecture



7.2 Internal processor

7.2.1 EGM presentation

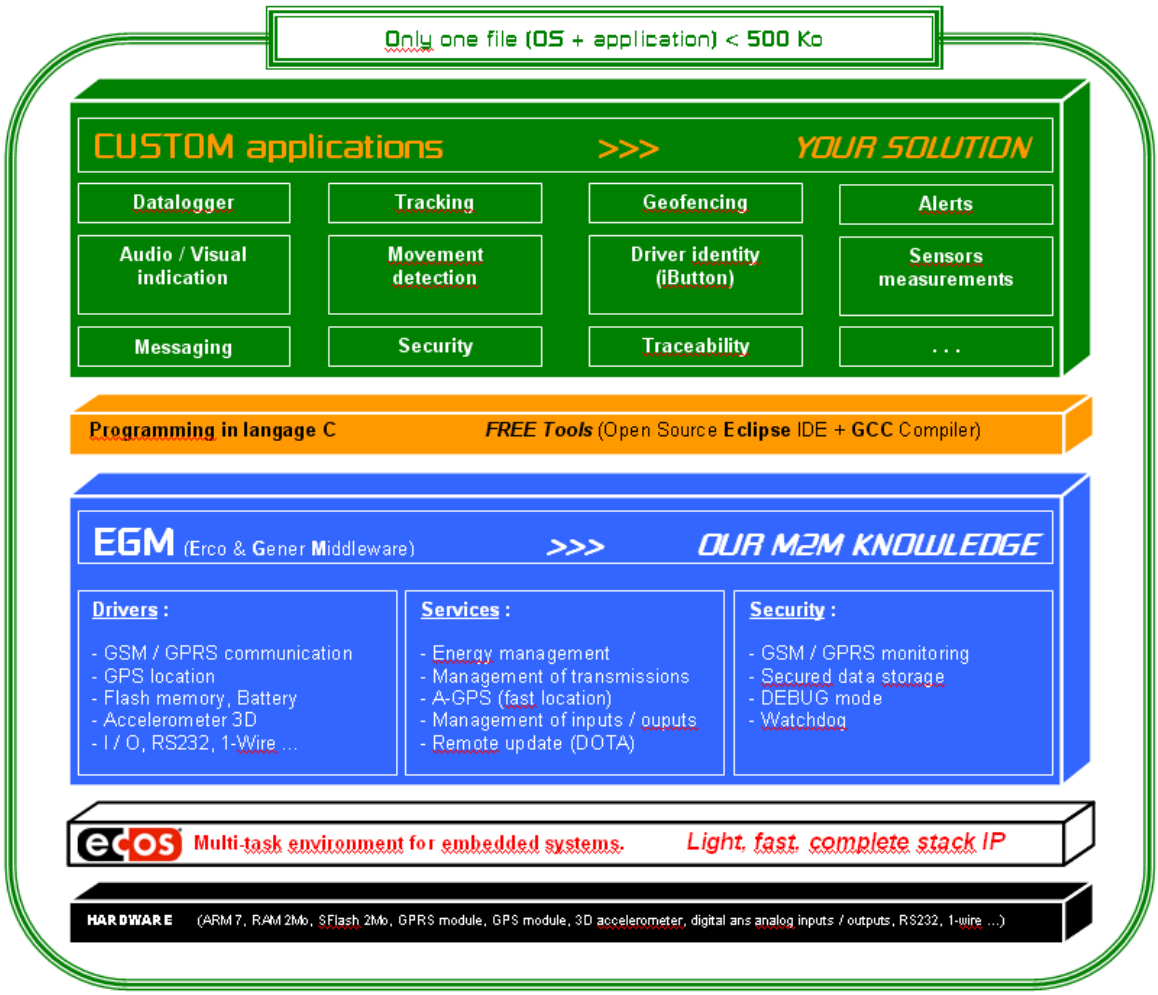
The GenTrack 35e has a processor that allows to have an embedded application developed from the EGM and eCos libraries.

The EGM libraries supplied by ERCO & GENER contain the following elements:

- EGM software library,
- eCos software library,
- A set of header files (.h) defining the EGM API functions,
- Source code samples.

7.2.2 EGM Architecture

The software architecture is described hereunder.



For more information about EGM and the possible trainings, please contact our Sales Department.

8 Technical characteristics

8.1 Electrical characteristics

Table: Electrical characteristics of the non-rechargeable battery

Nominal tension	+3.6 VDC
Nominal capacity	13.0 Ah
Operating temperature range	- 60 / + 85°C

WARNING: Do not short-circuit, **charge**, drill, burn, crush, plunge, expose it to temperatures superior to the operating temperature range stated by the manufacturer. Risks of fire or explosion.

8.2 Environmental characteristics

To ensure a correct functioning of the GenTrack 35e, the limits listed in the table hereunder must be respected.

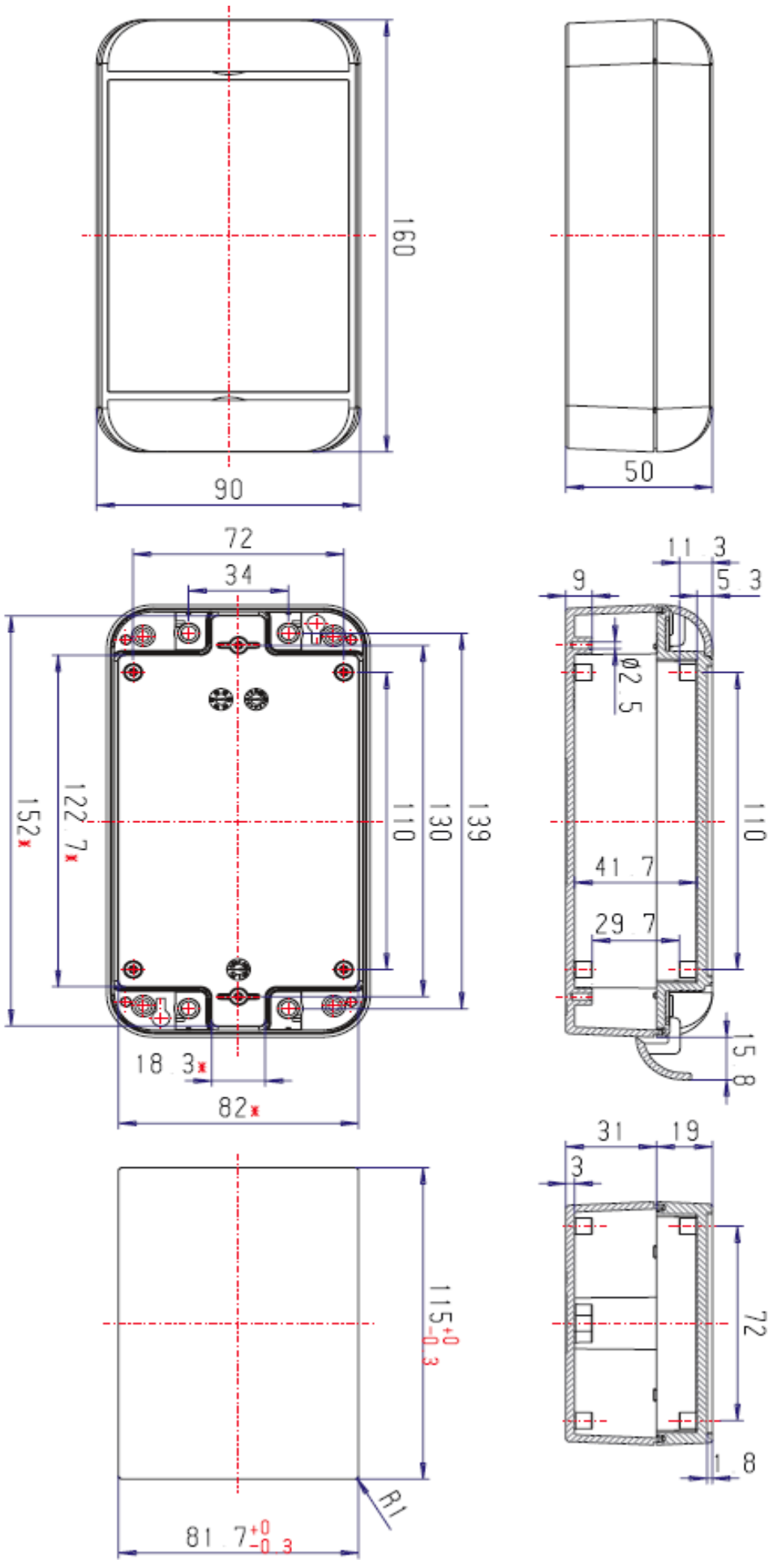
Table: Environmental characteristics

Operating temperature range	- 20°C to + 60°C
Storage temperature range	- 40°C to + 85°C
Operating humidity without condensation	90 % ± 10 %
Atmospheric pressure	Normal

8.3 Mechanical characteristics

Dimensions	Height 160 mm x Width 90 mm x Thickness 50 mm
Weight	≈ 370 grams (only)
Volume	720 cm³ (max.)
Casing	Material ABS UL 94 VO – Color light grey Ral 7035
Waterproof level	IP66

The complete dimensions of the casing are shown hereunder.



8.4 Installation

• Ideally, the GenTrack 35e must be directed (cover side) towards the open sky. This orientation allows to get an optimal antennas' performance.

• The mounting surface must not allow to submerge the GenTrack 35e.

• Take precautions when fixing (drilling) the GenTrack 35e in order not to damage other elements (wires...).

Remark:

It is recommended for the user to test the different situations in order to check if the GenTrack 35e transmits data and receives GPS positions.

To mount GenTrack 35e, it is possible to use circlips or screws via the fixing holes of the casing (see picture hereunder).

8.5 Standards/Conformities

The product complies with the following requirements:

- Regulations of standard ETSI EN 300 440-1 V1.3.1 (2001-09)
- Regulations of standard ETSI EN 300 440-2 V1.1.2 (2004-07)
- Regulations of standard ETSI EN 301 489-3 (2002),
- Regulations of standard ETSI EN 301 489-7 (2002),
- Regulations of standard ETSI EN 301 511 V9.0.2 (2003-03)
- ROHS Compliant : Directive 2002/95/CE,
- 2002/96/CE DEEE (Crossed out wheelie bin).

The following marking appears under the device.

CE

9 Security recommendations

This device is a product of high-technology design. This equipment is under your responsibility and must be handled with care.
It is important to respect the specific regulations concerning the use of this device.
The following suggestions will allow you to preserve your warranty.

- In case of technical incidents, contact the technical department and give them the references of your device which are situated on a label under the product.
- Your equipment must be held out of violent shocks. A violent shock could destroy the different internal circuits and the small mechanical parts. The device must be correctly fixed.
- The device must be placed in a dry and ventilated area.
- Do not store the device in areas where temperatures are out of the device's limits. High temperatures could reduce the life of electronic devices and damage or melt the plastic components. In case of change of very low temperatures to very high temperatures, there may be some humidity inside the device and it can damage the electronic circuits.
- Do not use hard chemical products, solvents or strong detergents to clean the device.

In certain countries, some restrictions of use may exist. Please consult your nearest legally qualified local government representative.

The use of other equipments or accessories not made or authorized by ERCO & GENER can cancel the GenTrack 35e warranty.

10 Recommended accessories

The accessories recommended by ERCO & GENER for the GenTrack 35e, are shown on our website in the section Products/Accessories.
For more information, contact our sales department.

11 Hotline

ERCO & GENER ensures the client support for all its equipments sold. You will then have access to:

- The datasheet of the product,
- The latest version of this document,
- The Application Notes and the update procedures,
- The Certificates.

L'esprit Modem

DECLARATION OF CONFORMITY

Manufacturer : ERCO & GENER

Address : Rue des petites Granges
Z.I. de Saint Lambert des Levées
B.P. 30163
49412 SAUMUR CEDEX – France

Website : http://www.ercogener.com

declares that the product :

Name : GenTrack 35e Type : GPS Position Transmitter

Telecom :	ETSI EN 301 511 V9.0.2
	3GPP TS 51.010-1 V7.4.0
Safety :	CEI 60950-1 : 2001
Vibrations:	ISO 16750-3 (2004-09)
EMC :	EN 300 440-1 V1.3.1 (2001-09)
	EN 300 440-2 V1.1.2 (2004-07)
	ETSI EN 301 489-3 (2002)
	ETSI EN 301 489-7 (2002)
	EN 301 511 V9.0.2 (2003-03)
	Council Recommendation 1999/519/EC of 12 July 1999

CE

The corresponding markings appear under the appliance.

Saumur, August 3rd 2009

Charles CHAUSSONNIER
Managing Director