

BENEFON Trackbox GPS+EGSM 900/1800 OR GPS+EGSM 900/1900

CONTENTS OF THE STANDARD PACKAGE

- Trackbox GPS+GSM 900/1800 or 900/1900
- Rubber seal
- Trackbox Software CD
 - English language user manual and installation guide
 - Configuration PC Software (BWTrackbox, requires cable)
 - Communication protocol specifications (AT & MPTP)
- Fixed power (built-in charger, 10–30VDC input)
- Standard 650mAh Li-ion battery
- Data capability NMEA & GSM data + power cable

OPTIONAL I/O PACKAGE

- 9+1 digital inputs
- 8 digital outputs
- 4 analogue inputs
- Memory for event logger: position & I/O events (3840 events), possibility also to a larger memory (7936 events)

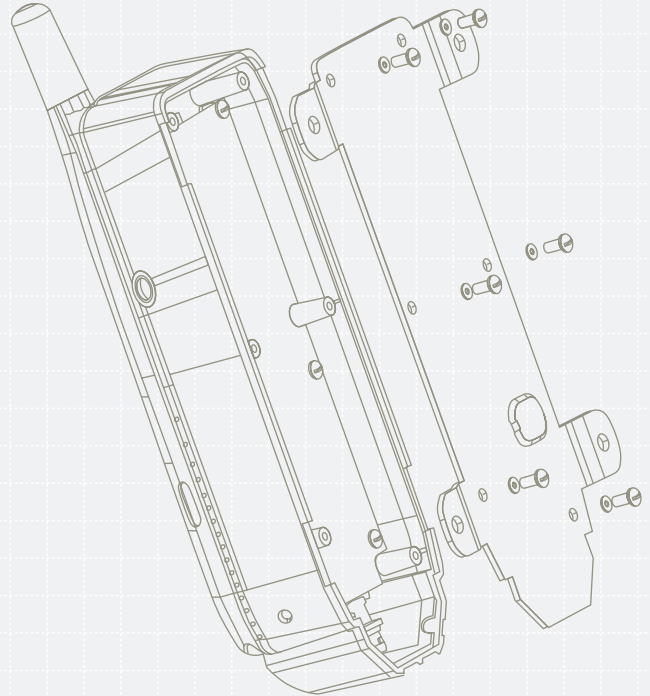
OTHER OPTIONS

- SMS encryption

USAGE

Automatic Vehicle Location with up to several months of autonomous operation depending on configuration

- Operating range from -22°C to $+55^{\circ}\text{C}$ (with special Li-ion back-up battery 650mAh, charging only above 0°C)
- Can be installed in boats, motor vehicles, railway rolling stock or containers
- In version with I/O package:
 - 9+1 digital inputs for automatic alarm with position information and four analogue inputs for e.g. temperature or level measurement
 - Eight digital outputs e.g. for vehicle immobilization
- Fully autonomous operation with integrated high gain GPS antenna, GSM antenna and battery, connectors for optional external GPS antenna (ZE2408), and GSM antenna (SMA connector, 50 ohm)
- Support for Mobile Phone Telematics Protocol (MPTP) offering for example remote control/configuration, position request, geo-fencing and battery report
- Circuit Switched Data and NMEA data ports
- Listen-in functionality with integrated microphone or full voice connection with custom HW
- AT command interface (subset of V25TER, GSM 07.05, GSM 07.07 and Benefon commands)



FEATURE HIGHLIGHTS

- Remote On/Off timer, intermittent operation
- Tracking, various triggers
- Area Tracking for one (1) independent area
- Way Point Tracking for 30 separated areas
- Assisted GPS, support for receiving assistance data
- Network positioning support
- Simple location request with history log
- Remote configuration of settings

FEATURES OF THE OPTIONAL I/O PACKAGE

- Dedicated Emergency call/SMS input
- 9 digital Status message inputs
- 8 independent digital outputs
- 4 analogue Status message inputs
- Remote readable (GSM data call) event logger to store position and I/O events

GENERAL SPECIFICATION

GSM STANDARDS

- EGSM 900/1800MHz or EGSM 900/1900MHz

GPS

- Active antenna 12 channels
- Cold Start 60s (typical)
- Warm Start 45s (typical)
- Hot Start 4s (typical)

COMMUNICATION

- MPTP (Mobile Phone Telematics Protocol)
- Voice with built-in microphone
- SMS
- Circuit Switched Data, 14.4kbs
- AT command interface (subset of V25TER, GSM 07.05, GSM 07.07 and Benefon commands)
- NMEA 2.0, subset (output only)

CONFIGURATION

- Local configuration, AT command interface with BWTrackbox program (included) or with custom SW
- Set-up loader for mass configuration
- OTA, MPTP commands to configure and control, activation of e.g. tracking and emergency messaging

POWER MANAGEMENT

- Inbuilt 10–30VDC battery charger
- Li-ion back-up battery 650mAh, Li-ion standard battery 650mAh or Li-ion power battery 1700mAh

DIMENSIONS

- Weight: 200g (with 650mAh Li-ion battery)
- Size: 145x49x33mm (without GSM antenna)

ENVIRONMENTAL

- Terminal: dust and splash proof
(accessories to be protected separately)

LIMITATIONS OF USE

- GPS only works with an unobstructed view of satellites
- Communication only works with valid SIM and operational GSM network

REFERENCES

Further details and specification documents:
www.benefon.com/products

BACK-UP OPERATING TIMES

(without I/O functions)

650mAh Battery	
StBy/GSM ON	40–110h
GSM Voice/data	2–6h
GPS Full Power	4h
GPS Low Power	16h
Activity timer actions	
GPS position once/hour	2 days
GPS position every 24 hours	40 days
GSM ON once/hour	15 days
GSM ON every 24 hours	60 days

1700mAh Battery	
StBy/GSM ON	100–280h
GSM Voice/data	5–15h
GPS Full Power	11h
GPS Low Power	42h
Activity timer actions	
GPS position once/hour	7 days
GPS position every 24 hours	110 days
GSM ON once/hour	46 days
GSM ON every 24 hours	180 days

Operating times can vary substantially depending on distance to base station, SIM card, temperature, network settings, network usage, I/O usage, GPS operating mode, GPS satellite visibility and GPS usage. Presented values are calculated at +20°C in typical conditions.

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