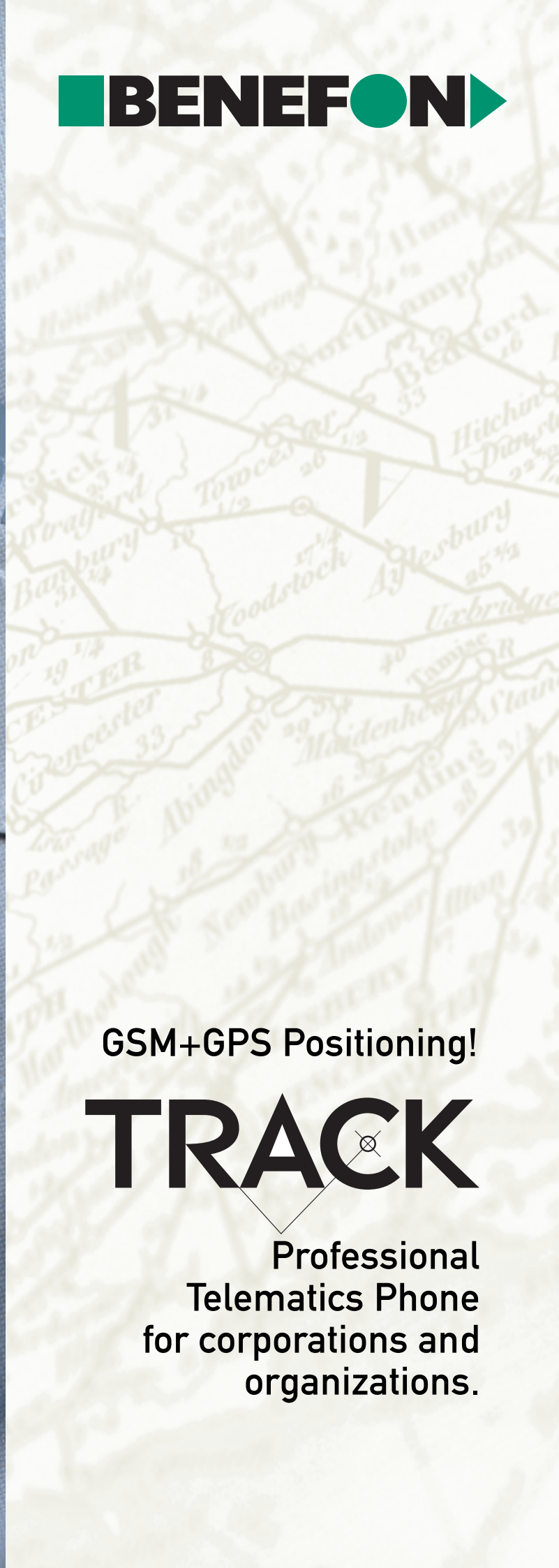


BENEFON



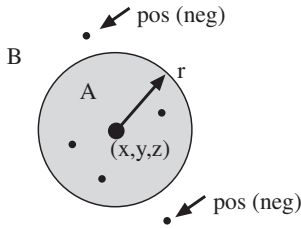
GSM+GPS Positioning!

TRACK

**Professional
Telematics Phone
for corporations and
organizations.**

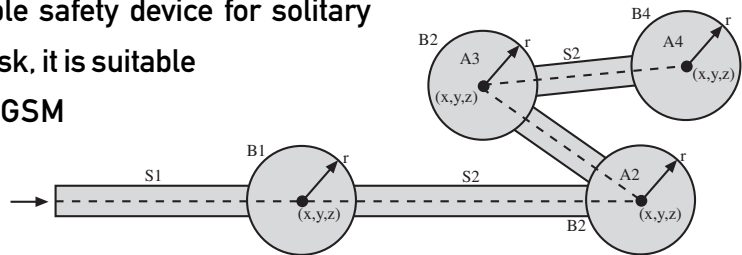
COMMUNICATION DEVICE

The Benefon Track is a state-of-the-art communication device with a combination of full-feature Dual Band GSM phone, high-performance GPS receiver and Mobile Phone Telematics Protocol (MPTP). With MPTP and BeneGuard – a unique, easily programmable multifunction button – the Benefon Track can be configured for several different purposes, from easy-to-use safety device to mobile unit for resource management application. Small and portable but still robust and water resistant, the device is an ideal solution for mobile locationing based applications used by companies and organizations .



SAFETY

With the help of MPTP, support for Benefon Track can easily be implemented for all emergency centers that can use voice and SMS for telematics. A portable safety device for solitary workers and people at risk, it is suitable for all locations with GSM network coverage.



SECURITY

With the addition of telematics, e.g. to a security guard's daily routines, not only will safety be improved, but a totally new way of supervising and directing personnel will also become possible.

Example of ascii coded message:

Header	CMD	Part	Mode	Battery status	Position source	Position format	Position	Time stamp	Speed	Direction	Data
!	POS	01/01	norm	075%	gps	1	N68.28.43.9 E027.27.02.4	31.12.1999 12:13:15	142km/h	114deg	x

!POS_01/01_norm_075%_gps_1_N68.28.43.9_E027.27.02.4_31.12.1999_12:13:15_142km/h_114deg

RESOURCE MANAGEMENT

With communication and positioning devices, telematic capabilities, and full portability included in the same package, most expensive fleet management applications become unnecessary. From now on, not only fleet but personnel such as servicemen, policemen, and couriers can be managed with the same application.

Benefon TRACK

A perfect tool
for telematics

The Benefon Track's extremely good voice quality is supported by a remarkable speaker phone feature, enabled by an oversized earpiece. The feature releases both hands for work and enables others to listen in on the conversation.



ADVANCED DUAL BAND GSM PHONE

GSM900/1800, unparalleled reception and RF technology, optional high-gain cross-country antenna, vibrating alert and enhanced Full Rate (EFR) for optimal voice quality.

PERSONAL ORGANIZER AND COMMUNICATIONS CENTRE

To let you roam freely, the Benefon Track comes with a phone book, calendar, appointment manager, and alarm clock with snooze. It also enables access to e-mail and the Web via a PC with a 14.4 kbps built-in GSM data and fax modem. Featuring predictive T9 text input for fast and easy text messages and notes.

GOOD GRIP

Practical design and elastomer protection on all sides for a good, steady grip.

HF PHONE

BENEGUARD

A multifunction button that can be programmed for several purposes, e.g. to open an SOS message with location and a voice connection to a predefined emergency number.

GSM+GPS POSITIONING!

The Benefon Track is worlds first portable GSM phone that has a hybride locating capabilities. In-built Twelve-channel high performance GPS receiver provides accurate coordinates, time and satellite status. GSM based technique provides practical accuracy and extra information when GPS is not available. (network operator dependand feature)

TOUGH, YET SMALL

Water- and shock-resistant. Weight 158 g, length 129 mm, thickness 23 mm.



Benefon Track GSM+GPS Professional Telematics Phone Technical Data

CONSTRUCTION

Class fiber reinforced back cover
Elastomer protected edges
Water resistant
Shock resistant

DIMENSIONS

Weight: 158 g
Length: 129 mm
Width: 49 mm
Thickness: 23 mm
Volume: 132 cc³

WIRELESS NETWORK STANDARD

GSM900, GSM1800 and GSM900/1800 MHz
Dual Band networks

POSITIONING TECHNOLOGY

Global Positioning System (GPS)
Twelve-parallel-channel receiver
continuously tracks and uses up to
12 satellites
GSM-network based locationing system.
(Network operator dependent)

DISPLAY

Full graphics high-contrast screen
Resolution 100 x 48 pixels
Dynamic, user-selectable font size
Up to 5 lines of text
Graphical status indication and icons
Graphical icons and scroll bars

KEYPAD AND EDITING

Automatic and manual key lock
ITU-T European Keypad printing
Full screen cursor editor
Clear last character or whole display
International access (+) button
One-touch T9 button
Any-key answering

PERSONAL ORGANIZER

Clock and date
Alarm clock with snooze
Calendar
Calendar appointment manager,
with reminders
Phone power-on and off timers

OTHER PHONE FEATURES

Predictive T9* text input for short messages
and phone book
Calculator
Downloadable ringing melodies
Precision GSM antenna RF connector for
optimal performance and changing to
optional antennas

CALL MANAGEMENT

One-touch dialling
Quick dialling
Last or recent-numbers redial
Multiparty calls
Call waiting, call hold
Call divert
Calling number or name identification
Caller number identification control/
Dialling prefix
DTMF transmission
Automatic and manual network selection
Automatic answer with headset and car kit

PHONE BOOK AND MEMORY FUNCTIONS

Supports up to 255 phone book entries on
the SIM card
Various ways to scroll or search the phone
book memory

BATTERIES

Type	Phone weight	Stand-by op. time	GPS operating time	Talk time	Charging time
Nickel Metal hybrid 600 mAh	176 g	80	4-18	2-5.5	1-2
Lithium ion 650 mAh	158 g	85	4.5-20	2.5-6	1-2
Lithium ion 1050 mAh	178 g	140	6.5-32	4-10	1.5-3

* Operating times can vary substantially depending on distance to base station, SIM card, temperature, network settings, network usage and GPS receiver operating mode.



GPS FEATURES

12 channel, high-performance GPS receiver
Integrated high-gain flip antenna
Connector for external active antenna
External NMEA 0183 interface

NAVIGATION FEATURES

Position coordinates
Speed
Heading
Trip odometer
Distance measurement

TELEMATICS FEATURES

Benefon Mobile Phone Telematics Protocol
(MPTP), a sophisticated set of Telematic
commands.
Locating commands
Tracking commands
Routing commands
Emergency commands
Status commands
Remote configuration

SAFETY FEATURES

Easy use BeneGuard-button for emergency/
status messages
One touch emergency call and/or SMS-
message triggering to predefined number
Status message sending with Benefon Mobile
Phone Telematics Protocol (MPTP)
Emergency 112 call without SIM card or while
phone is locked

ACCESSORIES

Fast mains charger
Cigarette lighter charger
Hands-free (HF) headset kit
Digital, full-duplex, plug-in HF car kit
Vehicle or boat cradle
Bike mounting brace
BeneWin Pro software and
data cable
External active GPS antenna
Cross-country antenna
Carrying holster (case)
NMEA Data Cable

BENEWIN PRO

Data cable from phone to server port of PC
Up to 14.4 kbps data and fax support through
AT commands
BeneWin Pro PC software:
- Edit and back up phone book memory
- Send and receive SMS messages by using
a PC keyboard
- Compose and change ringing melodies with
BeneWin Maestro
- Manage phone settings



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Specifications are subject to change without notice.
Benefon Oyj is an ISO 9001-certified manufacturer and
a TQM company.
T9 is a registered trademark of Tegic Communications.

Dialled calls (15) list with time and date
stamp

Answered calls (10) list with time and date
stamp and calling number or name
identification

Unanswered calls (10) list with time and date
stamp and calling number or name
identification

Access phone book for sending SMS
Pick SMS sender's number for phone book
Show sender number or name (if stored in
SIM) as an SMS header

SHORT MESSAGES SERVICE (SMS)

Predictive T9* text input
Send and receive text messages of up to 160
characters (standard) or 640 characters
(if supported by network)
Time and date stamp for received messages
Answer message
Forward message
Pick sender name or number from message
text
Message delivery report
Call SMS sender

SECURITY AND CALL COUNTERS

Call barring
Notification of charges and charge limits
Call Timers: last call, outgoing calls, received
calls and all calls
Fixed dialling numbers
Phone code
PIN1, PIN2

TONE CONTROL

40 different ringing tones and melodies
Downloadable and user-composable ringing
melodies
Ringing tone levels, including silent mode
Ascending alert
Keypad tone levels
Several SMS alert tones and tone levels
Quick alert settings for adapting to voice
environment
Tone indications for telematics status
messages, GPS-functions etc.

GSM SYSTEM-SPECIFIC FUNCTIONS

GSM Phase 2+ signalling
Enhanced Full Rate speech codec
Automatic power save if no network

SERVICE PROVIDER- SPECIFIC FUNCTIONS

SIM application toolkit
Pre-paid SIM support
Network lock

GSM DATA

Up to 14.4 kbps circuit switched GSM data
and fax
Integrated modem, data cable directly to
PC serial port
Data protocols: V.21, V.22, V.23, V.22bis,
V.36ter, V.32, V.34, V.110 (ISDN), X.31 flag
stuffing, V.42bis
AT commands interface

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