## ENGLISH (UK)

Copyright ©2003 Palmtop B.V. All rights reserved. TomTom® is a registered trademark of Palmtop B.V., The Netherlands.

BLUETOOTH is a trademark owned by Bluetooth SIG, Inc., U.S.A. and licensed to Palmtop B.V.

The information in this document is subject to change without notice. Palmtop B.V. shall not be liable for technical or editorial errors or omissions contained herein; not for incidental or consequential damages resulting from the performance or use of this material. This document contains information protected by copyright. No part of this document may be photocopied or reproduced in any form without prior written consent from Palmtop B.V.

First Edition, May 2003

### Contents

Contents	. 2
The TomTom Wireless GPS receiver	. 3
1. Registration and Product Support.	. 4
2. Important Safety Notices and Warnings	. 4
3. Getting Started	. 6
4. Indicators	10
5. Technical Specifications	12

### The TomTom Wireless GPS receiver

Congratulations with the purchase of your TomTom Wireless GPS receiver. You now have one of the smallest and most versatile wireless GPS receivers available today.

Your TomTom Wireless GPS receiver gives you total mobility for hiking, sailing and personal navigation - using Bluetooth technology and rechargeable battery power. The AC power adapter will charge your receiver quickly, allowing you many hours of GPS use outdoors.

Flexible mounting and power options make your TomTom Wireless GPS receiver ideal for in-car use. The receiver can be placed on the dashboard using the magnetic base; and, using the cradle you can place the receiver in a perfect and safe spot.

Use the cigarette lighter adapter to easily power and charge your TomTom Wireless GPS receiver. If you need to mount the receiver permanently into your car, you can use the direct car power cable. An optional external antenna lets you place the TomTom Wireless GPS receiver out of sight.

Please take some time to study this manual. It contains important <u>safety</u> and regulatory information.

Using this manual will help you to:

Create a Bluetooth connection to your PDA, Smartphone or laptop Power and charge your receiver at home and in the car Mount or place your receiver in your car Operate the receiver

And will provide you with the following: Technical specifications Product registration information Information on where to get support

Please check the contents of the box first (see Chapter 3).

## 1. Registration and Product Support

Register your product now on the TomTom online registration page at <u>http://www.tomtom.com</u>.

Registering your product gives you access to all the latest news about your TomTom Wireless GPS receiver, and will help us to supply you with the best possible support.

If you have any questions regarding your receiver or should your receiver require repairs, contact our Customer Services Helpdesk by following the support link on our website at <u>http://www.tomtom.com</u>. We will be happy to help you.

### 2. Important Safety Notices and Warnings

#### 2.1 Global Positioning System

The Global Positioning System (GPS) is a satellite-based system that provides location and timing information around the globe. GPS is operated and controlled under the sole responsibility of the Government of the United States of America, who are responsible for its availability and accuracy. Any changes in GPS availability and accuracy may impact the operation of your GPS receiver. Environmental conditions will affect the operation of your GPS receiver. Palmtop B.V. cannot accept any liability for the availability and accuracy of GPS.

#### 2.2 Use With Care

Use of a GPS receiver for navigation does not by any means substitute for the need to drive with due care and attention.

#### 2.3 Aircraft and Hospitals

Use of devices with an antenna is prohibited on most aircraft, in many hospitals and in many other locations. The TomTom Wireless GPS receiver must not be used in these environments.

#### 2.4 Heat Reflective Shields

Newer model vehicles may have a heat reflective shield embedded in the windshield preventing proper GPS signal reception if the receiver is placed behind the windshield. To enable proper reception:

- (a) Use an external antenna, or
- (b) Place the receiver in a different position, or

(c) Place the receiver behind the rearview mirror, where many vehicles have an opening in the heat reflective shield, indicated by a black outline

#### 2.5 Magnets

The TomTom Wireless GPS receiver contains strong magnets. *Do not place the receiver near any item that may be damaged by magnetic force, such as credit and debit cards.* 

#### 2.6 Battery

This product uses a Lithium-Ion battery. Please charge the battery fully before first use. Refer to operational temperature ranges in the specification appendix. Operation in low (below 0°C/32°F) or high (over 45°C/110°F) temperatures will affect power supply efficiency and the ability to charge the battery. All Lithium-Ion batteries will experience power supply efficiency deterioration over time, even if not used, and have a limited life expectancy. Permanently powering the battery will reduce life expectancy. Do not continue recharging the battery if it does not recharge within the specified time. Do not pierce, open or disassemble the battery. Do not swallow the battery. If the battery leaks and you come into contact with the leaked fluids, rinse thoroughly with water and seek medical attention immediately.

Do not use your product in a humid, wet and/or corrosive environment. Do not put, store or leave your product in or near a heat source; in a high temperature location; in strong direct sunlight; in a microwave oven; in a pressurized container, and do not expose it to temperatures over 60°C (140°F). Failure to follow these guidelines may cause the Lithium-Ion battery to leak acid; become hot; explode; or ignite and cause injury and/or damage.

THE LITHIUM-ION BATTERY CONTAINED IN THE PRODUCT MUST BE RECYCLED OR DISPOSED OF PROPERLY. USE ONLY WITH SUPPLIED CHARGER(s) AND SUPPLIED AC ADAPTOR FOR BATTERY CHARGING.



### 2.7 Installation, Use & Maintenance

# *Do not attempt to service this product yourself. Do not open, puncture or disassemble the product.*

For permanent installation and powering in a vehicle, we recommend hiring a professional service technician.

For mobile installation, ensure that the GPS receiver has an unobstructed view of the sky, or that it is connected to an optional external antenna Protect your product from excessive heat (see previous paragraph), extreme cold (see previous paragraph), dust, liquids and direct sunlight. Do not use in a humid environment. Do not use the product on an unstable surface. When using the product in a mobile environment always fasten the product to prevent accidental movement of it. Handle all parts, cables and connectors with care. Only use supplied and suggested accessories and power supplies. Ensure that any power supply and/or AC adapter is cooled by placing it in a ventilated area. The power supply and/or AC adapter, the cradle, and the receiver unit may become warm or hot during operation. Unplug the product from any external power source before cleaning. Only clean the product with a dry cloth. Only use the supplied PDA Power Cable with PDA's that conform to the specifications of the cable. Follow the instructions in this manual carefully.

#### 2.8 This Document

Great care was taken in preparing this manual. Constant product development may mean that some information is not entirely up-to-date.

The information in this document is subject to change without notice. No liability shall be assumed for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the performance or use of this material. This document contains information protected by copyright.

## 3. Getting Started

#### 3.1 What's in the box?

The TomTom Wireless GPS receiver set comes with:



(1) Receiver unit(2) Cradle (not included)

- (3) AC adapter with international plugs
- (4) Cigarette lighter adapter
- (5) Permanent power cable
- (6) Adhesive base plate for magnetic fixture
- (7) PDA power cable
- (8) HP iPAQ charger adapter
- (9) Adhesive tape

#### 3.2 What it is

#### 3.2.1 Receiver unit



- (1) Power button
- (2) Bluetooth indicator
- (3) Charge and GPS indicator
- (4) 5V Power Jack for AC adapter and/or cigarette lighter adapter
- (5) Optional external antenna MC jack
- (6) Cradle charging port
- (7) Cradle mounting holes

#### 3.2.2 Cradle (not included)



- (1) Cradle mounting brackets
- (2) Charging connector
- (3) Screw holes



- (4) Cradle release button
- (5) 5V Power Jack for AC adapter and/or cigarette lighter adapter
- (6) 12-24V Permanent power cable jack

#### 3.2.3 Cigarette Lighter Adapter & PDA Power Cable



- (1) 5V Y-Jack for PDA Power Cable
- (2) PDA Power Cable
- (3) HP iPAQ charger adapter for use with HP iPAQ only

#### 3.3 Setting up

#### 3.3.1 AC Adapter

The AC adapter comes with multiple plugs for use in North America, Great Britain and Europe. Unplug the adapter before changing the plugs. Slide the appropriate plug onto the AC adapter and use the supplied plastic screw and screw driver to fasten the plug. The AC adapter can be used to charge the receiver by plugging the 5V plug into the 5V jack on the rear side of the receiver. Alternatively, insert the 5V plug into the 5V jack on the side of the cradle and insert the receiver into the cradle. **Note:** when inserting the receiver into a powered cradle, the receiver will switch on (to synchronize with vehicle ignition). Never use the AC adapter simultaneously with the cigarette lighter adapter or the permanent power cable.

#### 3.3.2 Cigarette Lighter Adapter

For in-vehicle charging, insert the 5V plug of the cigarette lighter adapter into the 5V jack on the rear side of the receiver. Alternatively, insert the 5V plug into the 5V jack on the side of the cradle and insert the receiver into the cradle. Note: when inserting the receiver into a powered cradle, the receiver will switch on (to synchronize with vehicle

ignition). You can simultaneously power your PDA by using the supplied PDA Power Cable. Never use the cigarette lighter adapter simultaneously with the AC adapter or the permanent power cable.

#### 3.3.3 Permanent power cable

A permanent power cable to directly connect the cradle to the vehicle power system is supplied. We recommend hiring a professional service technician for installation into your car. The permanent power cable is designed for 12V-24V. Never use the permanent power cable simultaneously with the AC adapter or the cigarette lighter adapter.

#### 3.3.3 Charging

While charging the 'Charge and GPS' indicator on the front of the receiver will turn red or orange. When charging is completed, the red or orange indicator switches off.

#### 3.3.4 Switching on and off

To switch the GPS receiver on, press the power button briefly. The 'Charge and GPS' indicator will blink once. After that, the Bluetooth indicator will start flashing.

To switch the receiver off, press the power button for 3 seconds. The 'Charge and GPS' indicator will blink once. If the GPS receiver needs charging, the 'Charge and GPS' indicator will remain on. The Bluetooth indicator will switch off.

#### 3.3.5 Setting up a connection with your PDA/Smartphone/Laptop

Please refer to the Bluetooth connection setup instructions in the documentation that comes with your PDA, Smartphone or laptop. You will need to set up a Serial Port connection between the GPS receiver and your device. The GPS receiver will appear to your device as the "TomTom Wireless GPS" and its GPS signal will be output on its "GPS serial output". To ensure ease of use, create a Bluetooth bond between your device and the GPS receiver. The pairing code is 0000.

Please check specific device setup information on our support pages at http://www.tomtom.com .

#### 3.3.6 Configuring your software

After setting up the Bluetooth connection, you will need to modify the properties of the software on your PDA, Smartphone or laptop to use the GPS signal from the GPS

receiver. Please refer to the documentation of your device, and of your software. Choose the NMEA protocol.

## 4. Indicators

### 4.1 Bluetooth Indicator

The left indicator shows that your GPS receiver is switched on. Whenever this indicator is lit continuously or flashes, your GPS receiver is on.

The indicator flashes when it is ready for connection with your PDA, Smartphone or laptop. If there is an active connection between the GPS and a device, the indicator will be lit continuously.

When the battery level is low, the indicator will turn red, meaning the GPS receiver needs to be charged to guarantee continued operation.

### 4.2 GPS and Charge Indicator

The right indicator flashes continuously whenever the GPS receiver is determining your position ("getting a fix"). When the internal battery is charging the color of the indicator will turn red or orange.

## 5. Technical Specifications

GPS Characterist		
Technology	Chipset	SiRFStar IIe/LP
reemoiogy	Frequency	L1, 1575.42MHz
	C/A code	1.023MHz chip rate
	Channels	12, All-In-View tracking
	Internal antenna	Patch antenna, disabled when optional external antenna connected
Accuracy	Position	10 meters, 2D RMS
riceuruey	Velocity	0.1 meters/second
	Time	1 microsecond
Acquisition	Note	Acquisition times are averages, for a stationary, open sky environment.
		Times will vary under other conditions.
	Reacquisition	0.1 seconds
	Snap start	2 seconds
	Hot start	8 seconds; start with time, position, ephemeris, almanac
	Warm start	38 seconds; start with time, position, almanac
	Cold start	45 seconds; start with almanac
Constraints	Altitude	18000 meters / 60000 feet maximum
	Velocity	515 meters/second / 1000 knots maximum
	Acceleration	4G maximum
	Jerk	20 meters/second <sup>3</sup> maximum
Interface Charact	teristics	
D 1		WGG AL
Protocol	Datum	WGS-84
	Protocol	NMEA 0183 Version 2.20
	Default verbs	GGA + RMC + VTG 1 second, GSA + GSV 5 second
Bluetooth	Version	Bluetooth Version 1.1
Bluetootii	Profile	Serial Port Profile (SPP)
	Default PIN	0000
	Default FIN	0000
Electrical Charac	teristics	
Power	Operational Voltage	3.3V DC +/-10%
	Input Voltage	5V DC +/-10%
	Built-in Backup Power	3.3V DC
Battery	Built-in battery	Lithium-Ion 600mAh
	Operational current	Note: figures below do not take power saving methods such as low
		message frequencies into account
		15~65mAh Standby Mode
		95~110mAh GPS and Bluetooth fully operational
		110~130mAh GPS and Bluetooth fully operational and external antenna
		connected
	Temperatures	Ambient temperature while charging +32°F to +104°F / 0°C to +40°C
		Ambient temperature while discharging -4°F to +140°F / -20°C to +60°C
		Storage (up to 1 month) $-4^{\circ}F$ to $+112^{\circ}F / -20^{\circ}C$ to $+50^{\circ}C$
Operation times	Full charge cycle	2 Hours (receiver off)
	GPS & Bluetooth continuous	5.5~6 Hours

Physical Characte	ristics	
Dimensions	Length	3.38" / 86mm
Dimensions	Width	1.81" / 47mm
	Height	0.75" / 18mm
	Weight	2.6 oz. / 76g
Environment	Humidity range	5% to 95% non-condensing
	Operating temperatures	-4°F to +140°F / -20°C to +60°C
Connectors	Power	3.5mm female
	External antenna	MC female
Certifications		
Regulatory Marks	Safety	CE (Conformité Européen)
	Electrical	FCC Class B, ICES-003 Class B, E-Mark
Industry	Bluetooth	Bluetooth certified