# 852

## **User's Manual**



Published on 12-Dec-2008

## Note and Warning

- 852 uses AAA battery\*2. If 852 used in temperature lower than -10°C or higher than 60°C, its battery capability will decrease. Please leave the 852 far from heat or high temperature environment. In addition, do not expose your 852 in temperature higher than 140°C/60°C. If you do not follow these rules, the battery may become heat, explode or burn itself, and this will lead to very serious damage.
- While in the hospital, turning off the 852 is recommended. Like other common equipments do, wireless GPS receiver may also affect these medical equipments which use radio frequency and make these equipments malfunction.
- For a long period not using 852, take out the battery and store it in dry/cool places.
- For safety, keep the 852 and all accessories out of small children's reach.
- We assume no responsibility for any damages and loss resulting from the use of this manual and also by deletion of data as a result of malfunction, dead battery, or misuse of the product in any way.
- Use only the supplied and approved accessories. Unauthorized accessories, antenna, modifications or attachments could damage the 852, and may violate regulations governing radio devices.
- Use a dry, clean soft cloth to clean the unit. Do not use harsh cleaning solvents, chemicals, or strong detergents.
- Do not attempt to open the 852 yourself. Unauthorized hacking may damage the unit, and void your warranty.

## **Table of Contents**

Chapter	1. Befor	e you begin	4
1.1	Intro	oduction	4
1.2	Feat	ure overview	4
1.3	Spec	ification	5
1.4	Butte	ons and Description	7
1.5	ICO	N LED Functional Description	8
1.6	Acce	essories	9
Chapter	2. Gettir	ng started	10
2.1	Turn	on/off 852	10
2.2	Butt	on description	10
2.3	Sleep	p mode	11
2.4	Con	necting your handheld device with 852	11
2.5	Help	ful Tips	15
Chapter	<b>3. How (</b>	to configure your GPS Record?	16
3.1	Driv	er Installation	16
3.2	Gps	View software	16
	3.2.1	Connect USB cable between GPS and laptop	16
	3.2.2	Executing GpsView Program	17
Chapter	4 Using	Photo Tagger software	21
4.1.	Exec	ute and install software utility Photo Tagger	21
4.2.	Goog	gle Earth	21
4.3.	Softv	ware Utility 852	21
Appendi	ix		22

Appendix A. locr GPS Photo	
Appendix B. Certification	
Appendix C. Warranty Information	

# **Chapter1. Before you begin**

## 1.1 Introduction

The TripMate852 features an all-in-one, cost-effective portable GPS logger solution. When you travel in different country, it allows you to record your routes by ways of time/ distance/ speed. The 852 include a one inch LCD, as the real time, moving speed, distance measurement and position information, all of the message always can shown on the LCD. Through user friendly software utility, it can combine the beautiful pictures and record routes show on the map. This recorder is small and robust, ideal to carry everywhere for applications such as route tracking, mountain climbing or fleet management.

4

## **1.2 Feature overview**

- MTK 3329 chip
- $\bigcirc$  Smart log function
- ◎ Receiver & data logger dual function design
- $\bigcirc$  Vibration sensor for power saving
- $\bigcirc$  Micro SD card for POI storage
- O Powered by AAA battery\*2

# **1.3** Specification

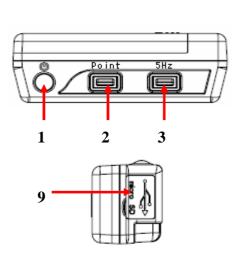
	Ge	eneral	
Frequency	L1,1575.42MHz	C/A Code	1.023Mhz
Datum	WGS84		
	Performance	Characteristi	ics
	Without aid: 3.0m 2D-RMS	Valoaity	Without aid: 0.1m/s
Position	<3m CEP(50%) without	Velocity	DGPS(WAAS,EGNOS,MSAS):
	SA(horizontal	Accuracy	0.05m/s
Accuracy	DGPS(WAAS,EGNOS,MSAS)		Without aid: <4g
	: 2.5m	Acceleration	
Timing Accuracy	50ns RMS		DGPS(WAAS,EGNOS,MSAS): <4g
Reacquisition Time	<1s	Hot start	1.5s
Warm start	34s	Cold start	35s
AGPS	<15s	C	Acquisition: -148dBm Max.
Update	1Hz	Sensitivity	Tracking: -165dBm Max.
	Dy	namic	
Altitude	Maximum 18,000m	Acceleration	Maximum 4g
Velocity	Maximum 515m/s		
	Pe	ower	
Operation Time	16hours	Battery	AAA battery*2
		I/O	

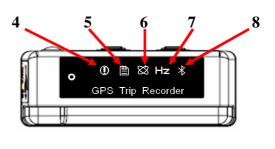
Baudrate	115200 bps	Protocol	NMEA 0183 v3.01
	Envir	ronment	
Operation	-10° to 50°		
Temperature	-10 10 50		
	Int	erface	
USD Dridge	Fully compliant with USB2.0		Fully compliant with Bluetooth V1.2
USB Bridge	12Mbps		0dBm(Typical), Class II
SD	Micro SD card	Bluetooth	Up to 10 meters
			Serial Port Profile(SPP)
			2.4GHz~2.4835GHz ISM Band
	0	thers	
Waight (g)	57.5g(with battery)	Dimension	72*27x25mm
Weight (g)	36.5g(without battery)	NMEA	GGA,GSA,GSV,RMC

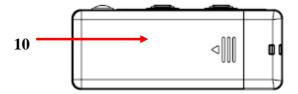
6

\*Citation MTK original chipset spec.

## **1.4 Buttons and Description**







- 1. Power on/off button
- 2. Point button
- 3. 5Hz button
- 4. Memory warning light
- 5. Log light
- 6. Satellite light
- 7. 1sec or 5sec log switch button

- 8. Bluetooth light
- 9. USB & Micro SD slot
- 10. Battery Cover

				-
Symbol	Category	Color	Status	Function
			Off	Memory capacity is big than 20%.
	MEMORY		Blinking	Memory is too low and less than
	WARNING ICON	Red	for 2 sec	20%.
•			On	Memory is full.
			Off	No log
	LOG ICON	Green	Blinking	In log mode
			for 2 sec	In log mode
			On	Acquiring satellites, GPS position
$\bigtriangledown$	SATELLITE	Orongo	Oli	not fixed.
$\sim$	ICON	Orange	Blinking	GPS position is fixed, Navigation.
				for 2 sec
			Off	Every 1 second log one time
HZ	5Hz ICON	Green	Blinking	Every 0.2 second log one time
			for 2 sec	Every 0.2 second log one time
				Bluetooth light on but not
	BLUETOOTH		On	connected to any Bluetooth devices
Ж	ICON	Blue		yet.
			Blinking	Bluetooth is connected and ready
			for 5 sec	for data transmission.

# **1.5 ICON LED Functional Description**

## **1.6** Accessories

Congratulations on your purchase of the 852. Before you start using 852, please make sure if your package includes the following items. If any item is damaged or missing, please contact your dealer at once.

- O Driver CD x1
- **USB cable x1**
- O AAA battery x2
- **Quick start guide x1**
- Micro SD 256M x1

\*Unit package contents may vary depending on countries without prior notice.

# **Chapter2. Getting started**

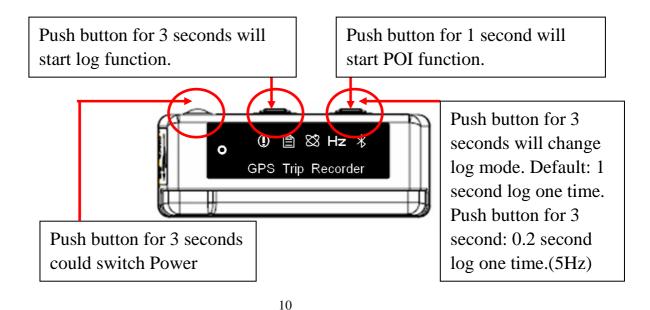
# 2.1 Turn on/off 852

Step 1.Take out the 852 battery cover and push the two AAA batteries into TripMate852.

Step 2.Start TripMate852, push "POWER" button for 3 seconds.



# 2.2 Button description



# 2.3 Sleep mode

After TripMate852 over than 10 minutes have not connection, it will into sleep mode. Under the sleep mode, the TripMate852 is like power off. The TripMate852 include vibration sensor. Therefore, when you just touch or move the TripMate852, the 852 will automatically wake up.

# 2.4 Connecting your handheld device with 852

Please refer to the user manual of PDA to enable the Bluetooth connectivity.

Below, we provide a common procedure of software installation to set up your PDA. (For other PDA, the steps may be different. Bluetooth Manager is a popular program used on Bluetooth device.)





Start -> Bluetooth Manager



A. Open "Bluetooth Manager" on your pocket pc, and establish a new connection.

7 Connection Wizard 🚓 👫 📢 7:13	> 🏄 Connection Wizard 🚓 📢 7:17
Bluetooth Connection Wizard	Bluetooth Connection Wizard Explore a Bluetooth device
Explore a Bluetooth device Discover the services another device offers and create connection shortcuts for them.	852 GPS Nokia 6230
Connect to Internet via phone Access the Internet with a Bluetooth enabled mobile phone.	
ActiveSync via Bluetooth Setup an ActiveSync partnership with a Bluetooth enabled computer.	
Some tipes on a remote device	
😯 Cancel Next 💠	Cancel Gack Next 🖗
E	View 🖄 📟

Explore A Bluetooth device

Tap 852 GPS

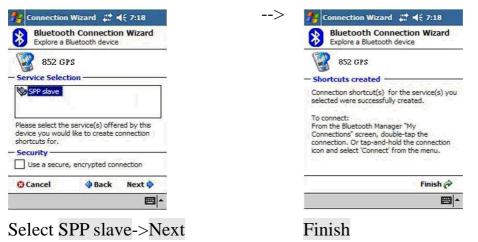
->Next

B. Explore a Bluetooth device, and find the "852"

evice .	852 GPS	
assword :	0000	
		Cancel
How to use	this screen	

Passkey 0000 (if your PDA asks for the passkey)

#### C. (Optional)



#### **D.** Connect to Serial Port Profile (SPP) Slave

🏄 Bluetooth Manager 📰 📢 7:19	> 🎢 Bluetooth Manager 🗮 📢 7:19 😵
Bluetooth My Shortcuts	8 Bluetooth My Shortcuts
Connect Rename Delete	852 GPS SPP slave
Properties	
My Shortcuts Active Connections	My Shortcuts Active Connections
New Tools View 🚷 🔤 🔺	New Tools View 👸 🔤 🔺
Tap and Hold 852. SPP	Done Done

Tap and Hold 852: SPP slave,

Done

#### Connect

#### E. Finish Bluetooth Manager Setup

#### 2.3.1. Loading your GPS mapping or routing software

You should have mapping software on your PDA/ Smart phone/ laptop or you need to install it before using the 852 for navigation.

#### 2.3.2. Starting the application

Select the correct COM port & baud rate within the application.

Note: The Bluetooth device in most of the applications has an "auto-detect" feature so that you do not need to select the Baud Rate.

# 2.5 Helpful Tips

- It's better to turn off the 852 when you don't use it, or the serial Flash's life can't last long.
- Some vehicles having heavy metallic sun protecting coating on windshields may affect GPS signal receptions
- Driving in and around high buildings may affect GPS signal receptions.
- Driving in tunnels or indoor park may affect signal receptions.
- In general, any GPS receiver performs best in open space where it can see clean sky. Also weather will affect GPS reception rain & snow contribute to worse sensitivity.
- Low battery of a PDA or of an 852 may affect signal receptions.
- Please check the correct "COM" and "Baudrate" of your PDA.
- 852 output data updates every second, therefore the actual position and the position shown in your map may have slight time delay. This may happen when you drive at higher speed or make a turn around a corner.
- Note that 852 may not work indoors where it can not see the sky.
- For the 1<sup>st</sup> time you use the 852, it will take 1 to 3 minutes to obtain the satellite constellation information and fix your position, this is called "Cold Start". If you replace the battery, 852 will do Cold Start again.
- If your 852 can't fix your position for more than 20 minutes, we suggest you change to another spot with open space and then try again.

# **Chapter3. How to configure your GPS Record?**

The GpsView program only supports the Microsoft Windows based platform.

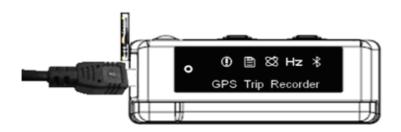
# 3.1 Driver Installation

Before the USB connector plugs in your PC/ Laptop, please have your USB Driver Installation ready. (Install InstallDriver.exe driver for USB port from CD-ROM.)

# 3.2 GpsView software

Open the GpsView software, please select correct COM port and Baud Rate (USB / Bluetooth: 115,200bps) to configure GPS.

## 3.2.1 Connect USB cable between GPS and laptop



To USB port on PC/Laptop

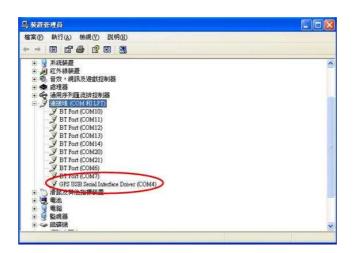
### 3.2.2 Executing GpsView Program

Click "Command" tap. Update Rate 1 ~ 5Hz is user configurable. And still more options for choice of NMEA output, DGPS...etc. all available through pull-down menus.

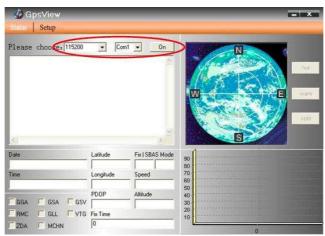
GpsView Status   Setup		
NMEA Output-Setting	Data-bandwidth –	AGPS
VTG 0 . GGA 1 . GSA 1 . GSV 1 .	1 Hz 4.2 %	Query Update Reset
ZDAQ MCHN 0	Confirm	StartLog StopLog
Tex Update Rate	Set	Ferniware Version Version: AVIN_1.0-B_1.3_C01,0000,TSI,1.0 Query
DGPS Current Status Setting C Enable (* Disable	Query Set	GpsView Version 2.0.10 Dec 1th 2008 (C) 2008 Transystem Linc. all right reserved

#### 3.2.2 Download AGPS

1. Start→Control Panel→System→Hardware→Device Management→Connector (COM and LPT) Check Com port position ∘



2. Open GpsView.exe→Check Baud Rate and Com port→click On



3. Choice Setup



4. Choice Update •

GpsView Status   Sclap		- *
NMEA Output-Setting GLL 1 • RMC 1 • VTG 1 • GGA 1 • GSA 1 • GSV 1 • ZDA 1 • MCHN 0 • Default Query	Data-bandwidth – 1 Hz 5.5 % Confirm	AGPS Updating now22 % DD NOT remove the min USB cable (connection) when updating EPD ets Query Update Reset LOG StartLog Stockory
Fix Update Rate	Set	Firmware Version Version: AVN_1.0.8_1.3_C01.0000,TSI.1.0 Query
DGPS Durrent Status @ Enable @ Disable Setting @ Enable @ Disable	Query	GpsView Version 2.0.10 Dec 1th 2008 (C) 2009 Transystem Inc. all right reserved

5. When Updating now...100%, click Enter complete  $\,\circ\,$ 



[Note] When you use GpsView software download AGPS data, it only supports use Bluetooth connect to PC and 850.

# **Chapter 4 Using Photo Tagger software**

#### 4.1. Execute and install software utility Photo Tagger

Complete GPS Photo Tagger and USB drivers installation (Refer to CD)

#### 4.2. Google Earth

If you computer is not yet installed with Google Earth. Google Earth has free download version, go download it in the internet first. For more information, please visit <u>http://earth.google.com/.</u>

#### 4.3. Software Utility --- 852

For further function to use the Photo Tagger software in detail, please refer to Photo Tagger user manual: Photo Tagger software > Help > User Manual

To use a mini-USB cable to connect the 852 to your PC, you have to power on the 852 unit. Please keep in mind to switch to LOG mode while using Photo Tagger software.

## Appendix

#### Appendix A. locr GPS Photo

With 852 and locr GPS Photo software, users are allowed to import geotagging adds information to photos. The position (latitude/ longitude) then be written into the EXIF header for the further application. Also, locr GPS Photo can integrated travel log and digital photos by date/ time to show photos on the map directly.

Please find the installation file for Windows XP/ Vista in CD tool, or go to <u>http://www.locr.com</u> for further information.



hotps					Mau Photo Settings Time Adjust Help About
Date	Name	Latifuce	Longtude	Hage	A Montana and a second and a se
IMG_9113JPG	25.03 2006 13:15:25	52,27000	10.53203	X	Kz Schuntersie Karte Batallif Hyb
MG 9214JPG	20.03 2000 10:10:20	52.25754	10.54344	x	
MG 9215JPG	20.03 2006 10:51:07	52,20704	10,53255	x	Schwarzer
MG_9216JPG	23.03 2006 18:51:12	52,26986	10,53255	x	Bru Bru
MG 9217,JPG	23.03 2006 18:51:22	53,54984	9,97325	x	Course conference
MG 9218JPG	23.08 2006 18:51:32	52,26986	10.53255	x	
MG 9398JPG	23.03 2006 19:25:29	52,25986	10,5325/	x	
MG 9401 JPG	23.08 2006 19:25:53	52,20000	10,53397	x	
1//G_9402.JPG	23.03 2006 19:25:56	52,27030	10,53420	x	Glissmanude Wabe-
MG_9403.JPG	23.03 2006 19:26:06	52,27055	10,53435	x	Iner Bindo
IMG 9405 JPG	25.03 2006 19:26:14	52,27076	10,53530	T	Nords Blot en-Strafe Det Wer Straße
MG 9411.IPG	25 03 2006 19:26:51	52,27026	10,53710	Ŷ	At appling Roterrang Applie
MG 9414JPG	23.08 2006 19.26.58	52,27005	10.53725	I	Martine A Martine A A A A A A A A A A A A A A A A A A A
MG 9415JPG	23.03 2006 19.27.00	52.27003	10.53728	1	
					240 Paiz-Atradit Paik Paiz-Atradit Paik Braunschweig Baelipars
Add			Remov		Prez-Altrealer Part
			Remov	·C	Internated Fuer Altredie 2006 Tolgo in a construction of the const
P5 Tracks	Start date		Remov	/c	Internation  Price Altredit Past    Braunschweig  Bedicers    Weißinnes  Kardsnäges 2009 Zeigedites    Address:
PS Tracks Name	Concerns and the second s		Lancas		Internated Fuer Altredie 2006 Tolgo in a construction of the const
iP5 Tracks	2.TXT 17.04.2007 19.	27:35 I 05:00 1	End date	5.14	Internation  Price Altredit Past    Braunschweig  Bedicers    Weißinnes  Kardsnäges 2009 Zeigedites    Address:
P5 Tracks Name 20070417_19270 20070410 19592	2.TXT 17.04.2007 19 5.TXT 10.04.2007 20	27:35 I 05:00 1	End date 7.04.2007 19:4 0.04.2007 20:0	5.14	Address: Latitude: 52.276 Address: Addr
P5 Tracks Name 20070417_19270 20070410 19592	2.TXT 17.04.2007 19 5.TXT 10.04.2007 20	27:35 I 05:00 1	End date 7.04.2007 19:4 0.04.2007 20:0	5.14	Actions

# Appendix B. Certification FCC Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Change or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.

--Increase the separation between the equipment and receiver.

--Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

--Consult the dealer or an experienced radio/TV technician for help.

#### CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

#### RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance."

### **CE** Notices

# **CE0984**①

Is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low-voltage Directive (73/23/EEC) and the Amendment Directive (93/68/EEC), the procedures given in European Council Directive 99/5/EC and 89/3360EEC.

The equipment was passed. The test was performed according to the following European standards:

- EN 300 328-2 V.1.2.1 (2001-08)
- EN 301 489-1 V.1.4.1 (2002-04) / EN 301 489-17 V.1.2.1 (2002-04)
- EN 50371: 2002
- EN 60950: 2000

#### **Appendix C. Warranty Information**

Thank you for your purchase of GPS product from the company.

The company warrants this product to be free from defects in materials and workmanship for one year from the date of purchase. The warranty for accessories is six months. The stamp of distributor or a copy of the original sales receipt is required as the proof of purchase for warranty repairs. The company will, as its sole option, repair or replace any components, which fail in normal use. Such repair or replacement will be made at no charge to the customer for parts or labor. The customer is, however, responsible for any transportation costs.

This warranty does not cover failures due to abuse, misuse, accident or unauthorized alteration of repairs. The company assumes no responsibility for special, incidental punitive or consequential damages, or loss of use.