treyki
. mini tracking system

GPS Mini-Tracking Device

INTRODUCTION &
USER GUIDE

Arvento Mobil Sistemler A.Ş.
Cyberpark, Cyberplaza A Blok 5.Kat
No:501-A, 06800 Bilkent / ANKARA
P: +090 312 265 0595
F: +090 312 265 0544

www.treyki.com

arvento
Mobile Systems

www.treyki.com

treyki
mini tracking system

GPS Mini-Tracking Device

CONTENTS

01 **INTRODUCTION**

1.1.Product Description

Arvento-Treyki device is a mini-tracking and monitoring system with a compact size and lightweight design. It can be carried in your bag or in your pocket, or attached to yourself with a wrist strap.

Treyki locates its position with the signals received from GPS satellites and sends location info to the Control and Communication Center via GSM/GPRS/SMS. Location and address of the device are displayed on digital maps through the Internet and can be monitored on a mobile phone or PC.

Voice calls can be made using Treyki. Treyki users can answer an incoming call or place outbound calls to pre-defined numbers. In case of an emergency, users can request assistance by pressing the S.O.S. button.

1.2.Main Features

» GPS personal locator
» GSM/SMS/GPRS communication
» Omni-directional high sensitive GPS antenna which can receive GPS signal from all direction
» Operates all over the world, provided that the region is inside GSM coverage. Supports quad band GSM 850/900/1800/1900 MHz and GPRS Class 10
» Real-time tracking and control devices over the web
» Position information logging
» Periodical programming according to time, geographic region, distance and angle
» Alarms & event notifications:
    » S.O.S. (Emergency)
    » Low Battery Alarm
    » Geo-fence Alarm
    » Over Speed Alarm
    » Motion/Idle State Detection
» LED Indicators to display GPS, GSM and battery status
» Built-in speaker and microphone
» Make/Receive voice calls
» Two programmable buttons
» USB charging
» 60hours stand-by time
» 36 hours operation time (position fix and reporting at 15 minutes interval) (Operation time may change according to the position fix and reporting interval)
» Firmware over the air (FOTA)

1.3.Package Content

Treyki

220 VAC Power Adaptor

Li-Ion Battery

GETTING STARTED

2.1.Charging the Battery

USB input is used for charging the device via PC or power adaptor.

Charging with 220 VAC Power Adaptor:

1. Connect Treyki device to the supplied AC power adaptor via USB
2. Plug-in the AC adaptor. Full charge may take 4-6 hours
3. The device power OFF state when the charging begins
4. During the charging process, the Battery LED color light turns to orange
5. When the device battery is full charged, Battery LED color turns to green
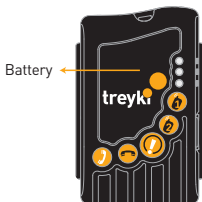
Only the 220 VAC power adaptor supplied should be used. Using other type of adaptors may damage your Treyki device.

Charging with USB cable (optional), via connecting to PC:

1. Connect Treyki device to PC with USB cable
2. Connect the cable to a PC or Notebook USB input, full charge may take 4-6 hours
3. The device power OFF state when the charging begins
4. During the charging process, the Battery LED color light turns to orange
5. When the device battery is fully charged, Battery LED color turns to green

Please note that, it is not possible to turn on the device during the charging process .

2.2.Install SIM Card

Battery

» Remove the belt apparatus
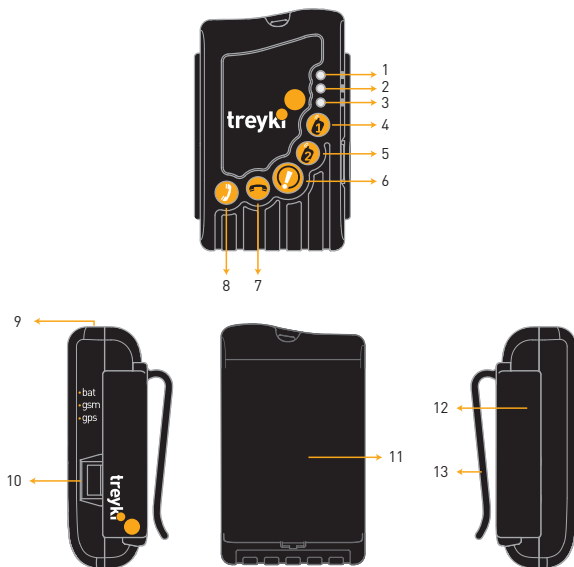

» Remove the battery cover

SIM Card Holder

» Remove the battery

» Open the SIM card holder as shown in the picture above
» Insert the SIM card into the holder and close the cartridge
» Place the battery in Treyki, and close the battery cover.
Please, ensure that the SIM PIN is unlocked before inserted into the device. (SIM PIN can be disabled through an ordinary mobile phone).

2.3.Appearance

1 Battery LED	**8** YES Button
2 GSM LED	**9** Speaker
(Turn On / Accept Call)	**10** Mini USB Connector
3 GPS LED	**11** Battery Cover
4 Programmable Button #1	**12** Microphone
5 Programmable Button #2	**13** Belt Apparatus
6 S.O.S. Button	
7 NO Button	
(Turn Off / Reject or End Call)	

2.4.Button Description

YES
» When the device is turned off; if you keep pressing the "YES" button for 3 seconds, all LEDs blink for 3 times and the device turns on
» When there is an incoming call, you may press this button to answer the call
NO
» When the device is turned on; if you keep pressing the "NO" button for 3 seconds, all LEDs blink for 3 times and the device turns off
» When there is an incoming call, you may press this button to reject the call
» When there is an active call, you may press this button to end the call
S.O.S.
» Emergency button
1
» Programmable Button #1
The user may program this button using WEB interface
2
» Programmable Button #2
The user may program this button using WEB interface

2.5.LED Indicators

2.5.1.Normal Operation
Battery
When the AC adapter or USB cable is plugged for charging the battery:
» The LED turns ORANGE, while the charging process continues.
» The LED turns GREEN, when the battery is fully charged.
When the device is on:
» The LED blinks in RED, when the battery power level is critically low
» The LED blinks in ORANGE, when the battery power is low
» The LED blinks in GREEN, when the battery is fully charged
» The LED blinks quickly in ORANGE, when any button is held down.
When the device is off:
» The LED blinks in ORANGE, when YES button is held down.
GSM
When the device is on:
» The LED blinks in RED, when the device cannot establish a GSM data connection
» The LED blinks in GREEN, when the device GSM data connection
GPS
When the device is on:
» This LED blinks in RED, when the device cannot fix its position
» This LED blinks in GREEN, when the device fixes its position
» This LED blinks in RED twice, when there is an internal GPS failure

2.5.2.Voice Call
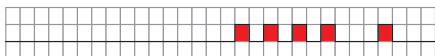
GSM LED is used for indicating the status of a voice call.

›› The LED blinks in ORANGE quickly, when any programmable button is pressed

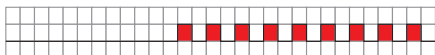›› The LED blinks in RED quickly with idle intervals, while it is ringing
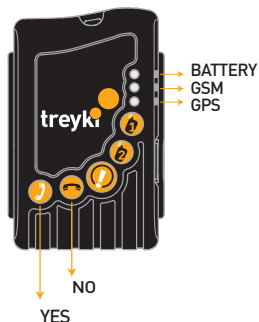
›› The LED turns GREEN, when the voice call is active

›› The LED blinks in RED quickly, when dialed number is busy

›› The LED blinks in RED quickly, when there is an incoming call

03
OPERATING THE DEVICE

BATTERY
GSM
GPS

NO
YES

3.1. Turn On / Off

When the device is off:
Press and hold the **YES** button for 3 seconds, all LEDs will blink for 3 times in GREEN and the device turns on

When the device is on:
Press and hold the NO button for 3 seconds, all LEDs will blink for 3 times in RED and the device turns off

3.2. Voice Call

If there is an incoming call;
» GSM LED blinks in RED quickly
» Press, YES button to answer / NO button to reject the call

If there is an active call;
» GSM LED lights in GREEN
» Press the NO button to end the call

If you press any programmable buttons #1/#2 to place a call:
» GSM LED blinks in ORANGE quickly, until ringing
» GSM LED blinks in RED quickly with idle intervals, when it is ringing
» GSM LED blinks in RED quickly, when dialed number is busy

Please see LED Indicators section for more details.

04 TECHNICAL SPECIFICATIONS

Operating Temperature: 0°C to 60°C deg
Dimensions: 66x38x19 mm
Weight: 55 g
Battery Type: Li-Ion 900mAh
Data Storage: 64 Mb

GSM Modem
➤ Quad-Band GSM/GPRS 850-900-1800-1900 MHz
➤ Output power:
    Class 4 (2W) @ 850 / 900 MHz
    Class 1 (1W) @ 1800 / 1900 MHz
➤ Sensitivity:
    -108 dBm @ 850 / 900 MHz
    -107 dBm @ 1800 / 1900 MHz
➤ GPRS data:
    GPRS class 10
    Mobile station class B
    Coding scheme 1 to 4
    PBCCH support
    SMS Support
➤ Superior echo cancellation & noise reduction

GPS Receiver
➤ 50 Channel
➤ GPS L1 Frequency, C/A Code
➤ SBAS: WAAS, EGNOS, MSAS
➤ Sensitivity: -162 dBm
➤ AGPS Support
➤ Accuracy: GPS 2,5 m, GPS+SBAS 2.0 m

GSM Antenna
» Internal

Sensors
» G Sensor (for motion and acceleration detection)

Buttons
» "YES"
» "NO"
» "S.O.S."
» "1"
» "2"

LED Indicators
» Battery
» GSM
» GPS

Connector
» Mini USB (B) (for PC connection and charging)

Certificates: SAR, $C\epsilon$

* The battery life varies depending on the frequency of sending
  the data requested from the device.

5.1.Product Safety Instructions

Please follow all safety instruction outlined below. Failure to follow these instructions may result in serious personal injury and/or property damage.

Always comply with all applicable regulations in any areas where Treyki is used. Turn your Treyki off by removing the battery in areas where its use is prohibited or where it may cause interference or may pose danger to anyone.

Use of radio equipment is prohibited in hospitals and may interfere with the use of medical equipment. Do not use Treyki in hospitals or near medical equipment. The Health Industry Manufacturers Association recommends that a minimum separation of six inches (6″) should be maintained between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker.

When boarding a plane, follow all instructions of the flight crew on the use of wireless devices on board. FCC regulations prohibit using your wireless device during any air flight. Turn off your Treyki during flight and at all other times as requested by the flight crew by removing the battery.

Do not use Treyki in the vicinity of explosives where it might interfere with remote control RF devices used to set off explosives.

Although it is rare, wireless phones may generate sparks. Do not use or store your Treyki around flammable or explosive gas, liquids, chemicals or any other such materials.

Certain jurisdictions prohibit the use of radio communication equipment while driving to avoid distractions and prevent accidents. Do not use Treyki while driving in those jurisdictions.

Only qualified personnel can install or repair this unit.

Your unit is not water resistant. Keep it dry. Use waterproof bag if necessary.

Do not place device in environments with temperatures exceeding 60°C (140°F).

5.2.Battery Safety Precaution
Only use the battery with a charging system that is compatible with the system. Use of an incompatible battery or charger may present a risk of fire, explosion, leakage or other hazard.

Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.

Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.

Promptly dispose of used batteries in accordance with local regulations.

Battery usage by children should be supervised.

Avoid dropping Treyki or its battery. If Treyki or the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.

For those host devices that utilize a USB port as a charging source, the host device's user manual shall include a statement that the phone shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.

06 CERTIFICATION

6.1. CE Declaration

R&TTE Declaration of Conformity
We, the undersigned Manufacturer,
Arvento Mobil Sistemler A.S.
Cyberpark, Cyberplaza A Blok 5.Kat No:501-A
06800 Bilkent-Ankara

Declare under our sole responsibility that the following product:
Product Name   : Treyki
Brand Name   : Arvento
Product Type   : GPS Mini-Tracking Device
to which this declaration relates is in conformity with the
essential requirements and other relevant requirements of
the R&TTE Directive (1999/5/EC).

The product is in conformity with the following standards
and/or other normative documents:
EN 301 489-01 V1.8.1:2008
EN 301 489-07 V1.3.1:2005
EN 61000-4-2:1995+A1:1998+A2:2001
EN 61000-4-3:2006+A1:2008
EN 60950-1:2005 (2nd edition) and/or EN 60950-1:2006
EN 301 511
3GPP 51.010-1

Place and date of issue: Ankara /14.06.2010

Signed for
Arvento Mobil Sistemler A.Ş.:
Name : Özer HINCAL
Title : General Manager

$C\,\epsilon$

6.2.RF Exposure Information (SAR)

This device complies with the EN 50360 ¨Product Standard to Demonstrate the Compliance of Mobile Phones with the Basic Restrictions Related to Human Exposure to Electromagnetic Fields (300 MHz-3GHz).

The exposure standard for cellular communication devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The tests for SAR have been conducted based on the standard operating position 15mm away from body. Please keep this distance at all times when the device is turned on and in operation.

Product Name: Treyki
Brand Name: Arvento
Product Type: GPS Mini-Tracking Device

to which this declaration relates is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC).

The product is in conformity with the following standards and/or other normative documents:

WARNINGS AND NOTES

7.1.General Rules

The user is obliged to abide by the following rules:

The device should be handled and operated in environments that provide the conditions specified in the instruction manual. Otherwise, the guarantee provided by the manufacturer shall be considered void.

» Spillage on the device of any kind of liquid, opening the case, attempting to alter the internal hardware or contacting the internal hardware with any foreign object may lead to a malfunction in the system. In such events, the device guarantee is considered void.

» In case of malfunction, the authorized servicing facility should be notified immediately and no attempt should be made to fix or repair the device.

» During the guarantee period, any type of maintenance, repair or assembly of the device should be carried out by authorized servicing facility. Otherwise, any problems encountered with the device shall not be considered within the scope of the guarantee.

7.2.Maintenance and Cleaning

Regular maintenance of the device times are determined by the authorized servicing facility as they take the operating environment and conditions into account.

Any dirt on the surface of the device should be wiped off carefully with a dry cloth.

08 GUARANTEE

8.1.Guarantee Provisions

1. The guarantee period is valid for duration of 1 year starting from the delivery of the product.

2. The product and all its parts are covered by the guarantee provided by our company.

3. In the event that the device fails during the guarantee period, the duration of repair is added to the guarantee period. The maximum duration of repair of the product is 30 days. This period begins on the date that the servicing station or in the absence thereof, the vendor of the device, the retailer, agency, representative, importer or manufacturer is notified about the device. In the event that the industrial product is not repaired within 15 work days, the manufacturer or the importer is responsible for supplying the consumer with the same device or a model that has same capabilities.

4. In the event of a malfunction resulting from the material and labor or faulty assembly during the guarantee period of the product, the device will be repaired without any charges relating to servicing costs or replaced parts or any other fees being incurred.

5. If any of the following occurs after the customer used his/her the right of repair, the consumer may request the product to be exchanged free of charge, demand a refund, or request a discount:
» Provided that the product is still covered by the guarantee period; the product is deemed unusable due to the same problem being encountered more than twice within the same year or in the event that more than six different malfunctions occur within the given period,
» The maximum period allowed for repair is exceeded,

» In the event that the company's servicing station, or in the absence thereof, the vendor, retailer, agency, representative, importer or manufacturer-producer, respectively, determines in their report that the malfunction is irreparable.

6. Modification of the product, or malfunction due to unauthorized maintenance carried out by the customer or products that our company is not responsible are considered to be outside the scope of guarantee.

7. Malfunctions that occur through uses other than those specified in the instruction manual of the product are outside the scope of guarantee.

8. The guarantee period of a product that has been exchanged during the active guarantee period is limited to the guarantee period of the product that has been purchased.

8.2.Guarantee Information

THE MANUFACTURER AND IMPORTER COMPANY

Title   **:** Arvento Mobil Sistemler A.Ş.
Address : Cyberpark, Cyberplaza A Blok 5.Kat No:501-A,
            06800 Bilkent-Ankara
Phone   **:** +090 (312) 265 05 95
Fax   **:** +090 (312) 265 05 44
Web   **:** www.arvento.com

SIGNATURE AND SEAL

Type   **:** GPS Mini-Tracking Device
Brand   **:** Arvento
Model   **:** Treyki

Stamp and Serial Number   **:**...

Delivery Time and Place   **:**...

Guarantee Period   **:** 1 year
Maximum Duration for Repair : 30 Days
Expiry Date   **:** 7 years

AUTHORIZED SERVICE STATION

Title/Name :...

Address   **:**...

Phone   **:**...

Fax   **:**...