USER MANUAL

For

Model T11012820

REVISION HISTORY:

REV	DESCRIPTION	DWN	APVD	DATE
0.1	Initial Version	TNS	TNS	30MAY18
0.2	Added CE section	TNS	TNS	24JUL18

Table of Contents

1. Introduction

1.1. Purpose

This document describes the usage of a T11012820 (marketing name TBD) device.

1.2. Scope

The intended audience is a valued customer.

1.3. Description

The T11012820 is a pentaband 3G (HSPA) with 2G Quad band fallback tracking device, and sensor data logger designed for the transportation industry. It is primarily intended to be used as a real time position monitoring device which will also produce accurate temperature. The following is a brief summary of its features:

1. GNSS that supports concurrent GPS/GLONASS solutions
2. Quad Band 2G GSM and Pentaband 3G HSPA
3. Internal battery
4. Accelerometer
5. Temperature Sensor
6. Light Sensor
7. Charging jack
8. Micro USB for updating mode
9. User Interface

Manufacturer Information

Company Name: SENSITECH Inc.

Address: 800 Cummings Center, Beverly, MA USA

Importer Information

Company Name: XXXXXXXXXX

Address: XXXXXXXXXXXX

1.4. Radio Frequency Characteristics

1.4.1. Operating Frequencies

GSM850/900/1800/1900, UMTS800/850/900/1900/2100

1.4.2. TRP/TIS

Maximum Conducted TRP: +33dBm

Minimum Conducted TIS: -110dBm

2. Physical Appearance

2.1. User Interface

The user interface consists of the following:

1. an LCD
2. three LEDs (red, green, blue)
3. three buttons (start, function, stop)

2.1.1. LCD

The LCD is intended to allow easy-to-read information to be conveyed to the end user. The user can immediately know the current status of the unit during startup and operation.

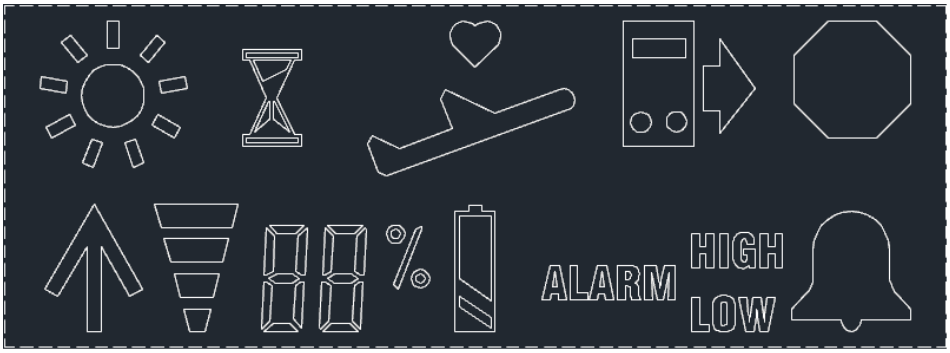

Figure 1 - LCD Icons

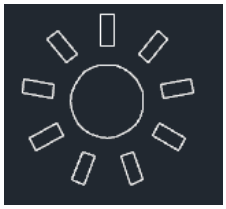

Figure 2 - Sun Icon

The sun icon shows that the unit is started and running. If the sun is not out, then the unit is not running.

Figure 3 - Hourglass Icon

The hourglass shows that the unit is in “startup delay.” This feature allows the user to delay taking temperature samples or other reporting features until after a preconfigured delay. This is useful for scenarios where the user wants the environment to be stable before recording data.

Figure 4 - Airplane Icon

The airplane icon shows that the unit is in a safe mode for operating on aircraft. The radio is disabled but all other functions are operating normally.

Figure 5 - Heart Icon

The heart icon shows that the unit is in a state that is not started, but ready to be started. If configured, this icon will turn on whenever the unit is ready to be started.

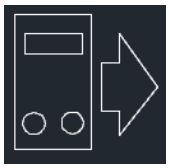

Figure 6 - Download Icon

The download icon shows when the user plugs the unit into their PC for download. It indicates that the device is creating report files, if configured.

Figure 7 - Stop Icon

The stop icon shows when the unit is stopped. In this mode, all messages are transmitted and the radio is disabled. This occurs if the user presses the stop button (if configured) or if the USB is connected.

Figure 8 - Mark Point Icon

The mark point icon shows when the user presses the start button while the unit is running to place a marker in the report. It can be useful for when a user wants to log a status check on the device.

Figure 9 - Network Icon

The network icon shows when the radio is connected and registered with the cellular network.

Figure 10 - Status Icons

A quick press of the function button will show battery percentage remaining on these icons.

Figure 11 - Low Battery Icon

The low battery icon turns on when the unit is started and the battery is below a preconfigured threshold.

Figure 12 - Alarm Icons

The alarm icons will turn on when the unit senses an alarm condition, based on configured thresholds. For example, if the temperature was over the threshold, then the text ALARM and HIGH will be shown, as well as the alarm bell.

2.1.2. LEDs

There are three LEDs on the device that show different statuses in low light conditions. In general, red indicates an issue and green indicates proper operation.

During startup, a rotating circle will be shown on the LCD and the green LED will blink. While it is in this state, the device is performing a self check. If it fails the self-check, then an error code will be displayed on the screen, and the red LED will turn on. After one hour, the device assumes it had been placed on a shipment and continues operation.

The blue LED is only illuminated when USB is connected.

2.1.3. Buttons

There are three buttons on the device:

1. Start – the left-most button, a configurable press delay is added, usually configured to be held for one second before it starts.
2. Function – the middle button, a quick press will give battery percentage
3. Stop – the right-most button, a configurable press delay is added, usually configured to be held for three seconds before it stops. It can also be disabled.

2.2. Connectors

The unit has two connectors. These connectors are located under the rubber cover on the side of the unit. The connectors are:

1. Micro USB – this connector is used if the customer has purchased a unit that supports report generation. Otherwise, it is not used.
2. Charging Jack – this connector is used for charging.

3. Using the Device

The usage of the device is intended to be simple and transparent to a customer's process.

To start a device, press the left-most green button labeled start for > 1 second.

To stop a device (if configured), press the right most stop button labeled stop for > 3 seconds.

Once started, ensure no error codes are shown on the screen and that the sun is shown. When the network icon is illuminated, the user knows it is on and registered with the cellular network.

4. Software

This unit reports data over the cellular network. This data is accessible via several web-based platforms that target various industries. Please contact customer support for more information.

5. Disclaimers

⚠	Risk of Fire Hazard if battery is not charged in accordance with manufacturer's instruction.
⚠	RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS
⚠	Do not dispose battery along with household waste.
⚠	There are no user serviceable parts inside, battery cannot be replaced by the end user, and will result in damaging device.
⚠	Do not charge the battery with any charger other than the one provided. Use of any other charger is not approved and will void warranty.
⚠	To comply with FCC/IC/CE RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 30 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

5.1. FCC

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:

1. Reorient or relocate the device.
2. Increase the separation between the equipment and device.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer for help.

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 my cause undesired operation.

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

5.2. IC

This device complies with Industry Canada RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Leprésent appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio Exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-3 (B)/NMB-3(B)

5.3. CE

Hereby, Sensitech declares that the radio equipment type [3G,2G Tracking Device] is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available upon request, Internet address: www.**sensitech**.com.