TRBO.SOS

User Guide

Version 1.1

World HQ
Neocom Software
8th Line 29, Vasilyevsky Island
St. Petersburg, 199004, Russia

US Office
Neocom Software
15200 Jog Road, Suite 202
Delray Beach, FL 33446, USA

Internet
Email: info@trbonet.com
WWW.TRBONET.COM

Telephone
EMEA: +44 203 608 0598
Americas: +1 872 222 8726
APAC: +61 28 6078325

Notices

This document is for informational purposes only. Neocom Software offers no warranties, express or implied, in this document.

Neocom and the Neocom logo, TRBOnet and the TRBOnet logo are either registered trademarks or trademarks of Neocom Software, Ltd.

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC.

Intellectual property rights protect the voice coding technology embodied in this product including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc. This voice coding technology is licensed solely for use within this communications equipment. U.S. Pat. Nos. 6,199,037, 5,870,405, 5,754,974, 5,664,051, 5,630,011, 5,517,511, 5,491,772, 5,247,579, 5,226,108, 5,226,084, 5,216,747 and 5,081,681.

Microsoft, Windows, SQL Server and the .NET logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other jurisdictions.

Other product or company names mentioned herein may be trademarks of their respective owners.

© 2020 by Neocom Software, Ltd. All rights reserved.

This document was last revised on November 26, 2020.

Contents

1 Introduction 1

1.1 About This Guide 1

1.2 About TRBOnet 1

1.3 Contacts 1

2 About TRBO.SOS 2

2.1 Features 2

2.2 Requirements 2

3 Installation 3

4 Configuring TRBOnet Enterprise 3

4.1 Configuring TRBOnet Server 3

4.2 Configuring TRBOnet Dispatch Console 9

5 Getting Started 14

5.1 Running TRBO.SOS 14

5.2 Main Page 20

5.3 Check-in Timer / Lone Worker 22

5.4 Enabling Safety Alarms 23

5.5 Sending Predefined Alarms 24

5.6 Connecting V.ALRT Device 25

5.7 Reporting Incidents 26

6 Settings 28

1 Introduction

1.1 About This Guide

This document is intended for end users of the TRBO.SOS software installed on an Android/iOS mobile device. The document describes how to install and configure TRBO.SOS, configure and start check-in timer, enable and configure safety alarms, send predefined alarms, connect V.ALRT buttons, and report incidents.

1.2 About TRBOnet

TRBOnet is a suite of professional applications for MOTOTRBO digital two-way radio networks. TRBOnet manages voice and data communication paths across network endpoints. It provides a unified graphical dispatcher workbench interface for the entire range of workforce fleet management tasks.

For more information about TRBOnet products, refer to our website.

1.3 Contacts

Region	Phone	Email & Support
EMEA	+44 203 608 0598	info@trbonet.com — general and commercial inquiries support@trbonet.com — technical support https://trbonet.com/kb/ — online knowledge base
Americas	+1 872 222 8726	
APAC	+61 28 607 8325	

2 About TRBO.SOS

TRBO.SOS is a software application that may be used to help people summon first-aid, security or safety assistance via their Android/iOS mobile devices.

2.1 Features

- Requests To Talk
- GSM call (common phone call)
- First Aid alarm
- Emergency alarm
- Fire alarm
- Police alarm
- Incident Reporting (photo + description)
- Lone Working - Check-In Timer
- ManDown Detection
- No Movement Detection
- Shake Detection
- Remote monitoring
- Location tracking in Alarm mode
- Enhanced push notifications (High-priority notifications bypass the mute mode)
- Wearable devices support (V.ALRT alarm buttons)

2.2 Requirements

The hardware and software requirements to install and run TRBO.SOS 1.0 on an Android/iOS mobile device include:

- Android version: 4.4.1 and higher
- Android version: 6.0 and higher to work with Bluetooth Wearable Devices
- iPhone 5s and above
- Network connection: Wi-Fi or 3G/4G/LTE
- TRBOnet Enterprise 5.5 and higher

3 Installation

The latest version of the TRBO.SOS software application is available for download on the Google Play Store (or App Store).

To install TRBO.SOS:

1. Visit the Google Play Store (or, App Store) from your mobile device.
2. Type "TRBO" in the **Search** box and run the search.
3. Tap the TRBO.SOS application, then tap the **Install** button.

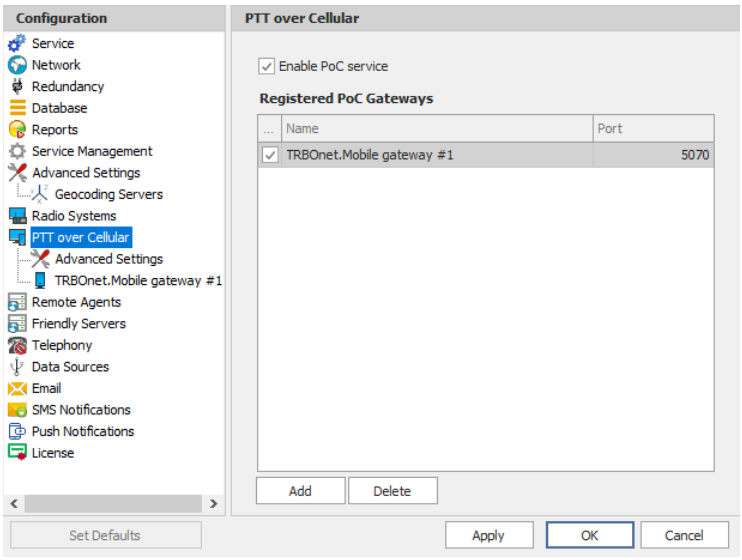
4 Configuring TRBOnet Enterprise

Before connecting TRBO.SOS to TRBOnet Enterprise, make sure that a Mobile System gateway have been configured in TRBOnet Server, and the corresponding TRBO.SOS account has been created in TRBOnet Dispatch Console.

4.1 Configuring TRBOnet Server

This section describes how to configure TRBOnet Server.

- In the **Configuration** pane, select **PTT over Cellular**.
- In the **PTT over Cellular** pane, select **Enable PoC service**.

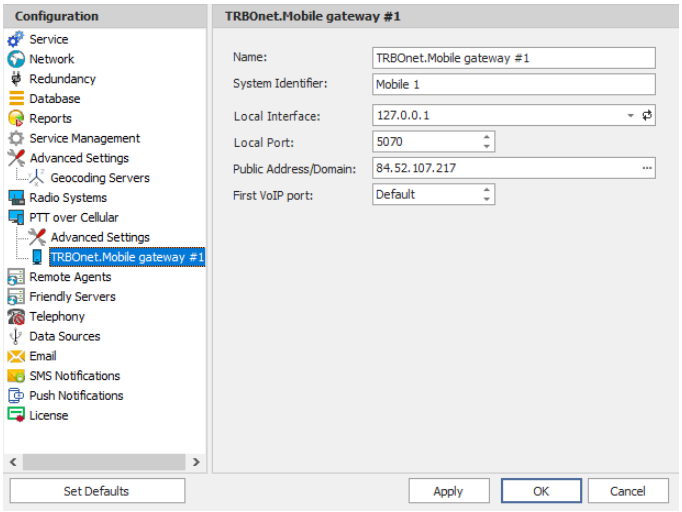


4.1.1 Advanced Settings

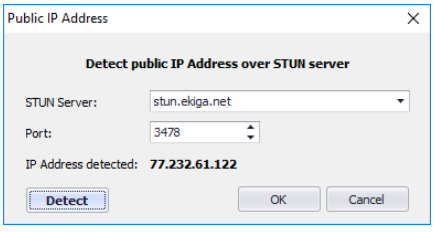
- In the **Configuration** pane, select **PTT over Cellular > Advanced Settings**.
- In the **Advanced Settings** pane, specify the following parameters:
  - **Max Call Time**
    Specify the maximum call time, in minutes.
  - **Registration Interval**
    Enter the time interval, in seconds, to check the registration status of mobile subscribers.

4.1.2 Adding a Mobile Gateway

- In the **PTT over Cellular** pane, click **Add**.
- In the **Mobile Gateway** pane, specify the following parameters:



- **Name**
  Enter the name of the mobile gateway.
- **System Identifier**
  Enter the name of the mobile system to which the gateway will belong.
- **Local Interface**
  Enter the IP address of the PC with TRBOnet Server.
- **Local Port**
  Enter the local UDP port number for the Mobile service (5070, by default).
- **Public Address/Domain**
  This is the public IP address of your PC. To detect the public address, click the ellipsis (**...**) button.



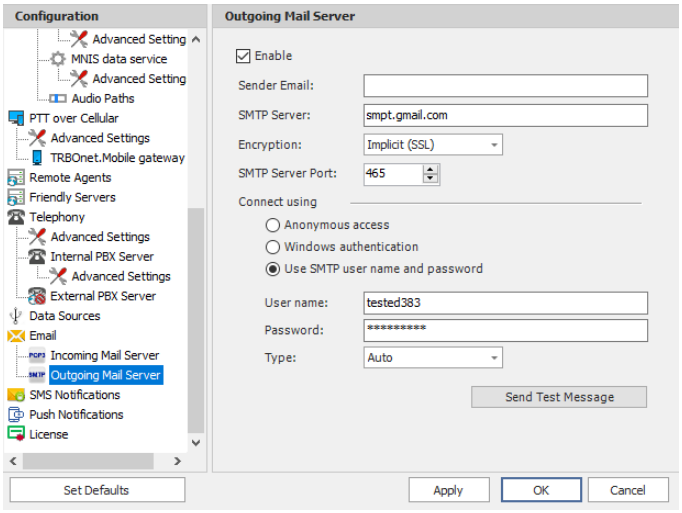
  - **STUN Server**
    From the drop-down list, select the STUN Server.
  - **Detect**
    Click this button to detect your public IP address.
- **First VoIP port**
  Enter the number of the first VoIP port for audio communications. The default value is specified in **Configuration > Network**.

Note: In addition, in order to ensure a better performance, go to **Configuration** > **Network**, and set the **Data protocol** parameter to **UDP**.

4.1.3 Adding Outgoing Mail Server

To enable registering TRBO.SOS applications with an email address (see section 5.1.2.2, Registering with Email), perform the following steps:

- In the **Configuration** pane, select **Email**.
- In the **Email** pane, select **Enable Email Server**.
- In the **Configuration** pane, under **Email**, select **Outgoing Mail Server**.



- In the **Outgoing Mail Server** pane, specify the following outgoing mail-related parameters:
  - **Enable**
    Select this option to enable Outgoing Mail Server.
  - **Sender Email**
    Enter the email address (optional) of the sender.
  - **SMTP server**
    Enter the server hostname or IP address of the SMTP server.
  - **Encryption**
    From the drop-down list, select the encryption protocol (**SSL**, **TLS**) if a secure connection is required, or select **None** if not. Note that three different dedicated ports will be used to connect to the mail server: via SSL, TLS, or with no encryption.

    Note: The port number will automatically change when you select the encryption protocol. For example, from **25** (no encryption) to **465** for SSL, and to **587** for TLS.

  - **SMTP server port**
    The port number to be used for the connection.

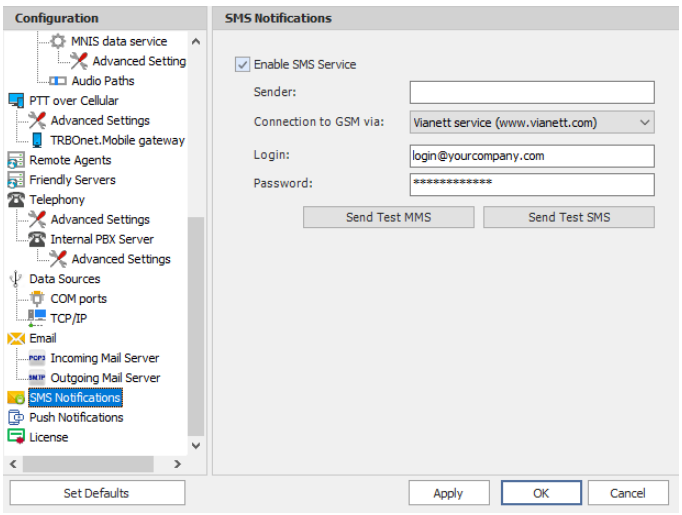
Note: This box is populated automatically depending on the selected encryption protocol.

- **Connect using**
  Choose one of the following options:
  - **Anonymous access**
    Choose this option to use an anonymous access to the SMTP server.
  - **Windows authentication**
    Choose this option to connect via TRBOnet Service Windows Account, if it is running under a specific account;
  - **Use SMTP user name and password**
    Choose this option and specify the credentials for the mailbox:
    - ✓ **User name**
      Enter the SMTP server user name.
    - ✓ **Password**
      Enter the SMTP server password.
    - ✓ **Type**
      From the drop-down list, select the SMPT login type.
- **Send Test Message**
  Click this button to send a test message from the Sender Email address.

4.1.4 Enabling SMS Service

To enable registering TRBO.SOS applications with a phone number (see section 5.1.2.1, Registering with Phone Number), perform the following steps:

- In the **Configuration** pane, select **SMS Notifications**.
- In the **SMS Notifications** pane, select **Enable SMS Service**.



- In the **SMS Notifications** pane, specify the following SMS-related parameters:
  - **Sender**
    Leave this box blank.

- **Connection to GSM via**
  From the drop-down list, select the type of connection.
  - **COM port GSM modem**
    Select this item if you are using a GSM Modem connected via COM port. In addition, select the **COM port** the modem is connected to, and enter the **SIM Card Pin Code**.
  - **Gemalto Cinterion EHS6T LAN**
    Select this item if you are using a Cinterion EHS6T GSM modem connected via LAN. In addition, enter the **IP address** of the modem, and enter the **SIM Card Pin Code**.
  - **Vianett service**
    Select this item to use an account on Vianett service.
    For more details on Vianett service, see www.vianett.com
  - **SMS Broadcast**
    Select this item to use an account on SMS Broadcast service.
    For more details on SMS Broadcast service, see www.smsbroadcast.com.au
  - **Clickatell**
    Select this item to use an account on Clickatell service.
    In addition to the **Login** and **Password**, you'll have to specify the **API ID**.
    For more details on Clickatell service, see www.clickatell.com
  - **IntelliSoftware**
    Select this item to use IntelliSoftware SMS Gateway.
    For more details on IntelliSoftware SMS service, see www.intellisoftware.co.uk
- **Login**
  Enter the login for the selected service account.
- **Password**
  Enter the password for the selected service account.
- **Send Test MMS**
  Click this button to send a test MMS from the selected service account to a recipient's phone number.

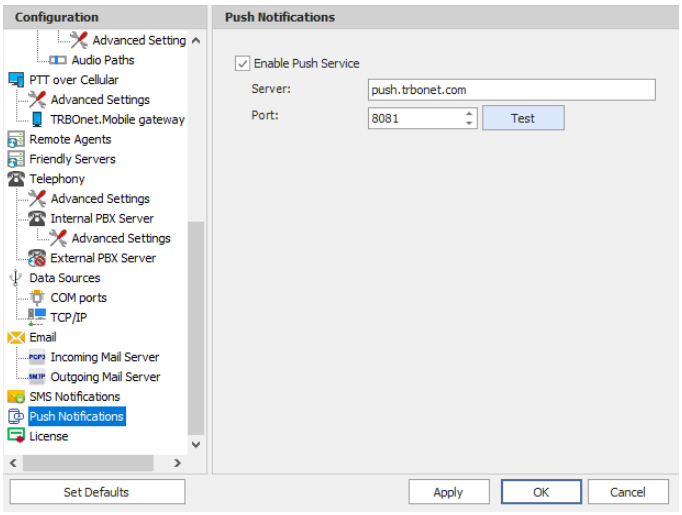
  Note: This button is available when connected via Vianett service only.
- **Send Test SMS**
  Click to send a test SMS from Vianett account to recipient phone number.

  Note: This button is available when connected via Vianett, SMS Broadcast, or Clickatell services.

4.1.5 Enabling Push Notifications

To enable sending push notifications to connected TRBO.SOS applications, do the following:

- In the **Configuration** pane, select **Push Notifications**.
- In the **Push Notifications** pane, select **Enable Push Service**.

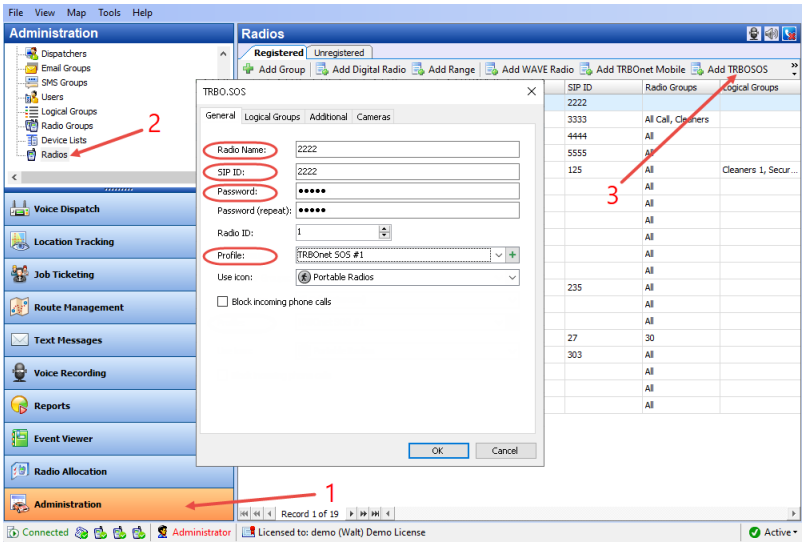


- In the **Push Notifications** pane, specify the following parameters:
  - **Server**
    Enter the Ethernet IP address of the push server.
  - **Port**
    Enter the UDP port number of the push server.
  - **Test**
    Click this button to check the connection to your push server. If the test is successful, you'll see information on the server you are connected to.

4.2 Configuring TRBOnet Dispatch Console

4.2.1 Adding TRBO.SOS

- Go to **Administration** (1), **Radios** (2) and click **Add TRBO.SOS** (3).



- On the **General** tab, enter the following parameters:
  - **Radio Name**
    Enter the descriptive name of the TRBO.SOS user to display in the Dispatch Console.
  - **SIP ID**
    Enter the SIP ID that will be used by the TRBO.SOS user. Note that this is a case-sensitive value. See also section 5.1, Running TRBO.SOS.
  - **Password**
    Enter the password for the authentication.
  - **Profile**
    Select the location profile for the mobile client. See section 4.2.2, Adding TRBO.SOS Profile.
- On the **Logical Groups** tab, specify logical groups for the TRBO.SOS user:
  - In the list of available groups, select desired group(s).
- On the **Additional** tab, specify additional information about the TRBO.SOS user:
  - **Route Color**
    Specify a color to display the route passed by the radio on the map.
  - **Load Image**
    Click this button and browse for the photo or image to assign to the radio.
  - In the table below, specify the desired values for the custom fields.
- On the **Cameras** tab, select the check box beside the camera that will be associated with the TRBO.SOS user.

4.2.2 Adding TRBO.SOS Profile

The Mobile Client Profile feature allows configuring different location profiles that can be applied to the Mobile Client app running on a smartphone.

- Go to **Administration > Mobile Client Profile (TRBO.SOS)**.

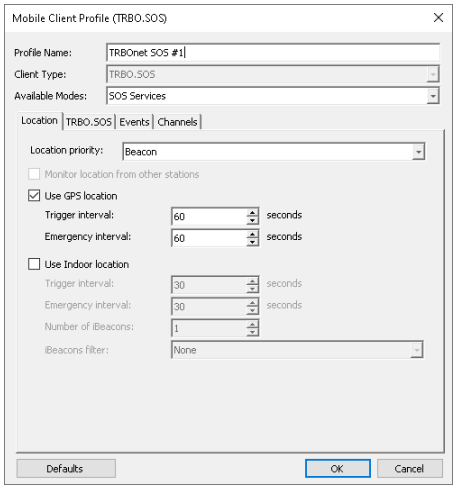
  You can see the default TRBO.SOS Profile settings in the **Mobile Client Profile (TRBO.SOS)** pane.

To add a TRBO.SOS Profile:

- In the **Mobile Client Profile (TRBO.SOS)** pane, click the **Add** button.
- In the **Mobile Client Profile (TRBO.SOS)** dialog box, specify the following parameters:

▪ **Profile Name**
Enter a name for the TRBO.SOS profile.

▪ Click the **Location** tab.



▪ **Location Priority**
This option is used when beacons are placed on the maps. If the smartphone having a GPS fix enters the range of a beacon placed on the map, its location tracking will be performed according to the selected priority.

- **GPS**
  Location tracking will be performed based only on the GPS coordinates received from the smartphone.
- **Beacon**
  Location tracking will be performed based only on the data from a Beacon that is placed on the map.

▪ **Use GPS location**
Select this option to enable sending GPS data to TRBOnet Server.

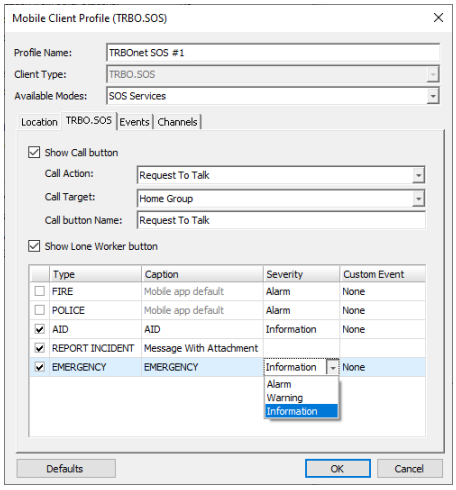
- **Trigger interval**
  Specify the time interval, in seconds, that will be used to send GPS location data.

- **Emergency interval**
  Specify the time interval, in seconds, that will be used to send emergency messages.

- **Use Indoor location**
  Select this option to enable sending iBeacon data to TRBOnet Server.
  *** See the note below.
  - **Trigger interval**
    Specify the time interval, in seconds, used to send iBeacon location data.
  - **Emergency interval**
    Specify the time interval, in seconds, that will be used to send emergency messages.
  - **Number of iBeacons**
    Specify the number of the most recently detected iBeacons whose data will be included in the data packet sent to TRBOnet.
  - **iBeacons filter**
    Click the **Add** link and enter the UUID of the beacons that will be used by the mobile client.

Note: The **Indoor Location** feature is not yet supported for TRBO.SOS.

- Click the **TRBO.SOS** tab.



- **Show Call button**
  If you select this option, the PTT button will be available in TRBO.SOS.
  - **Call Action**
    From the drop-down list, select the action to be performed when the PTT button is pressed: Request To Talk or Phone Call.

Note: TRBO.SOS apps running in the background on iOS 13 and later won't be able to receive a response to a request to talk from the dispatcher.

- **Call Target**
  From the drop-down list, select the call target.
- **Call button Name**
  Enter the name (label) of the PTT button.

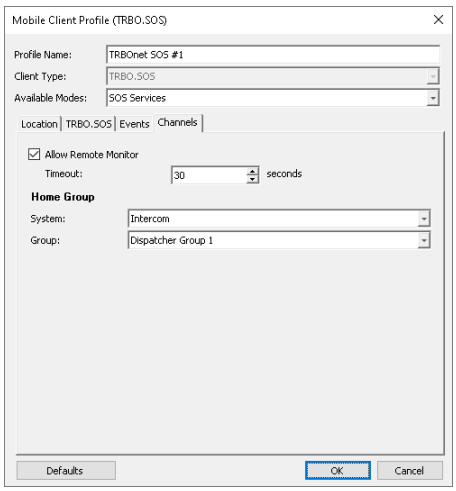
▪ **Show Lone Worker button**
If you select this option, the Lone Worker button will appear in TRBO.SOS. This will allow the TRBO.SOS user to start the Lone Worker mode.

▪ **Panic buttons**
In the table below, specify the Type, Caption, Severity/Status, and Custom Event for the additional button(s).

- Click the **Events** tab.
  - ▪ Select the desired safety alarms (**Man Down**, **No Movement**, **Shake**) to be automatically triggered on the TRBO.SOS and sent to the Dispatch Console.
  - ▪ Select the **Battery Level** option so that the smartphone's battery level will be sent to the Dispatch Console.

Note: TRBO.SOS apps send the battery information as soon as they are connected to TRBOnet. After successful connection, TRBO.SOS apps pass the battery level to the server with every location update, voice transmission and text message. Regardless of its activity, a TRBO.SOS app will update the battery charge level when it goes down to 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 15%, 10%, 5%, thus connecting to TRBOnet each time to update the level.

- Click the **Channels** tab.



▪ **Allow remote monitor**
If you select this option, the dispatcher will be able to activate the smartphone's microphone in hidden mode.

- **Timeout**
  Specify the remote monitor duration, in seconds.

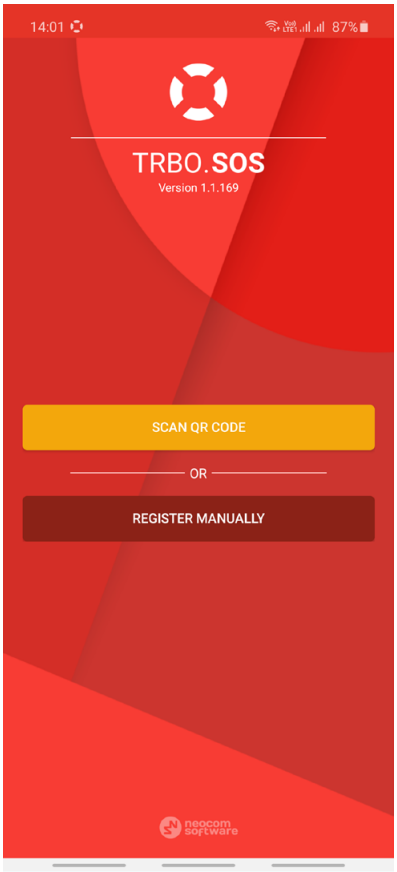
Note: The dispatcher won't be able to execute the Remote Monitor command for TRBO.SOS apps running in the background on iOS 13 and later.

- **Home Group**
  Select the home group (**System** and **Group**) for the PTT button.

5 Getting Started

5.1 Running TRBO.SOS

To launch TRBO.SOS on your mobile device, tap the TRBO.SOS icon on the screen. The first page appears on the screen.

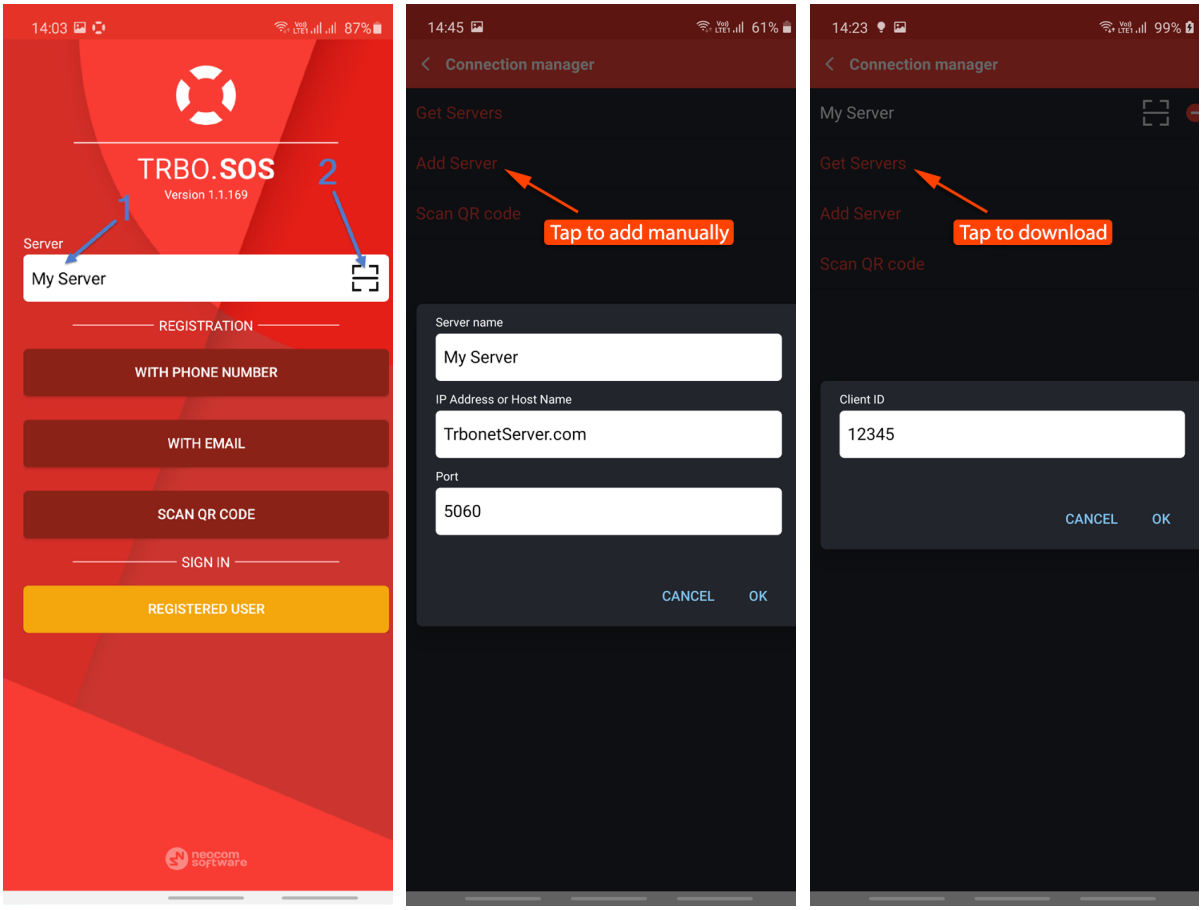


- **SCAN QR CODE**
  Tap this button and scan a QR Code that contains the address of the TRBOnet Server and the registration type (via Phone Number or Email).
- **REGISTER MANUALLY**
  Tap this button and proceed with the registration process (or sign in if you have a previously established account).

5.1.1 Selecting TRBOnet Server

On the login page, enter the following connection settings:

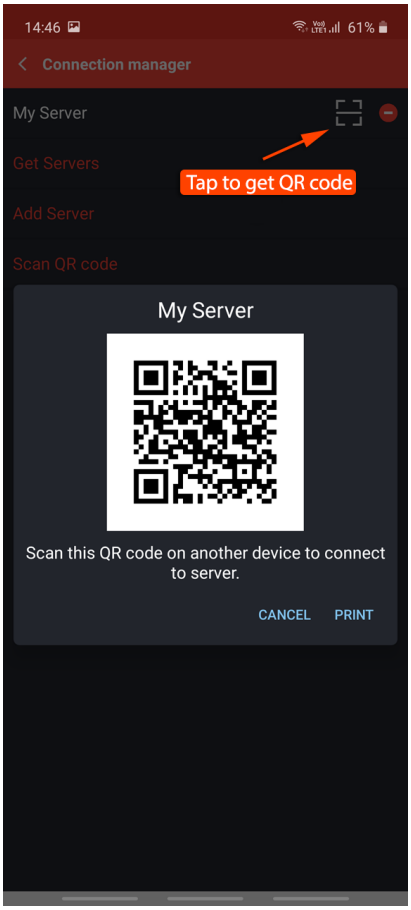
- Tap the **Server** line (1).
- In the **Connection manager** page,
  - Tap **Add Server**, and in the box that pops up, enter the following information:
    - **Server name**
    - **IP Address or Host Name**: The IP address or the host name of the TRBOnet Mobile Gateway.
    - **Port**: The local port of the TRBOnet Mobile Gateway (see sections 4.1, Configuring TRBOnet Server and 5.1.1.1, Recommended Port Numbers).
  - Or, to download the server, tap **Get Servers** and in the box that pops up, enter the **Client ID**.

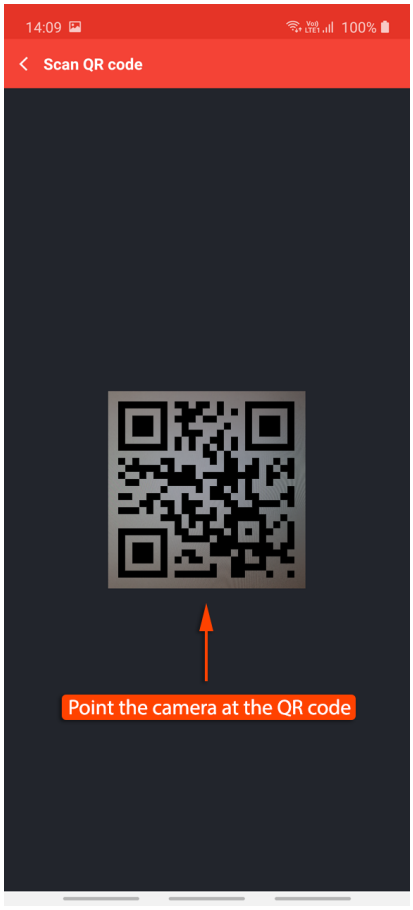


- In the list of servers, tap the button on the right to get the server's QR code and in the box that pops up, tap **Print** to print this QR code.

Or, to add a server with the QR code:

- Tap the button on the right (2) of the Server line.
- While in the **Scan QR code** page,
  - Point the camera at the QR code and wait for the QR code to scan.
    As a result, the corresponding server will be added to the list of servers.
    You can long-tap on it to see its properties (Server name, IP Address, and Port)





5.1.1.1 Recommended Port Numbers

TRBOnet Mobile Gateway

Available port range: 1024 - 65535

Recommended port value: **5070**.

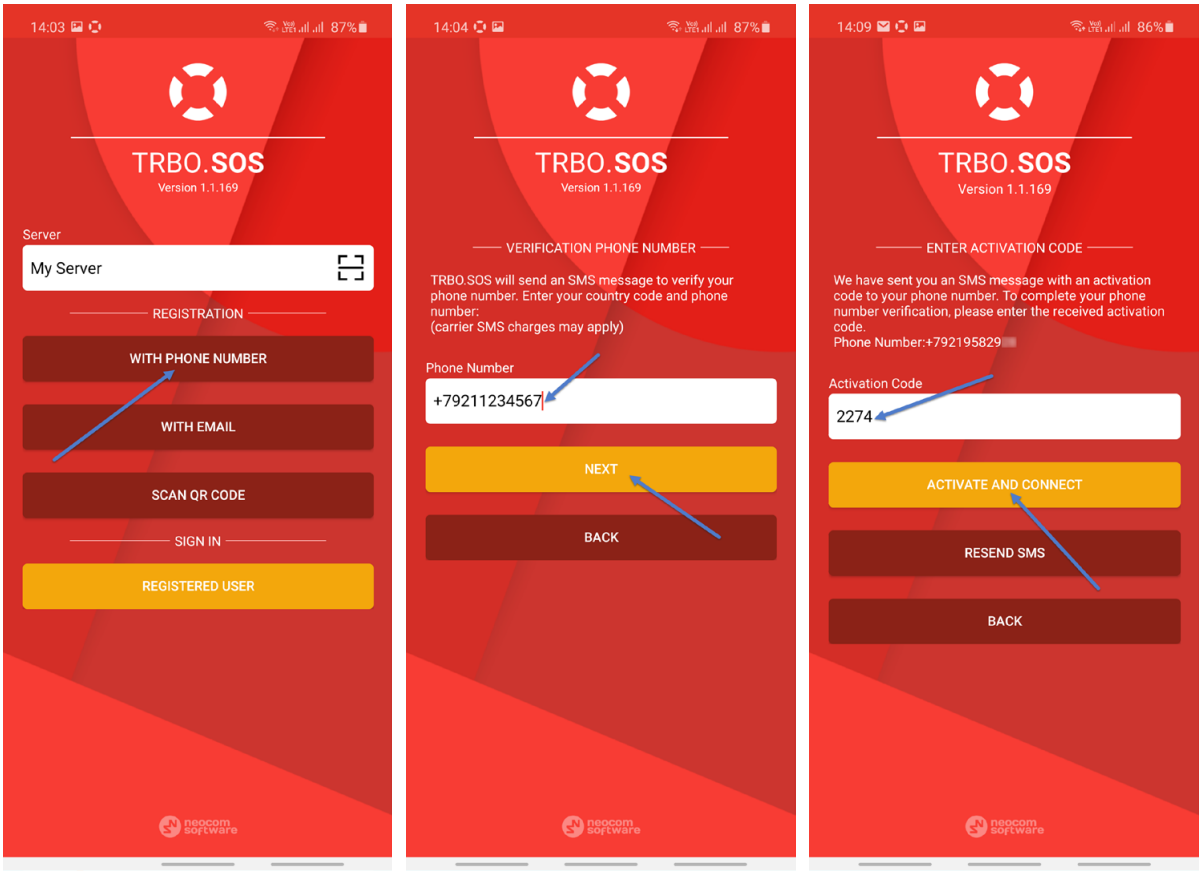
5.1.2 Registering on TRBOnet Server

You can register on the selected TRBOnet Server with either email or phone number.

5.1.2.1 Registering with Phone Number

- Tap the **WITH PHONE NUMBER** button.
- Enter the phone number and tap **NEXT**.
- Enter the activation code you received via SMS and tap the **ACTIVATE AND CONNECT** button.

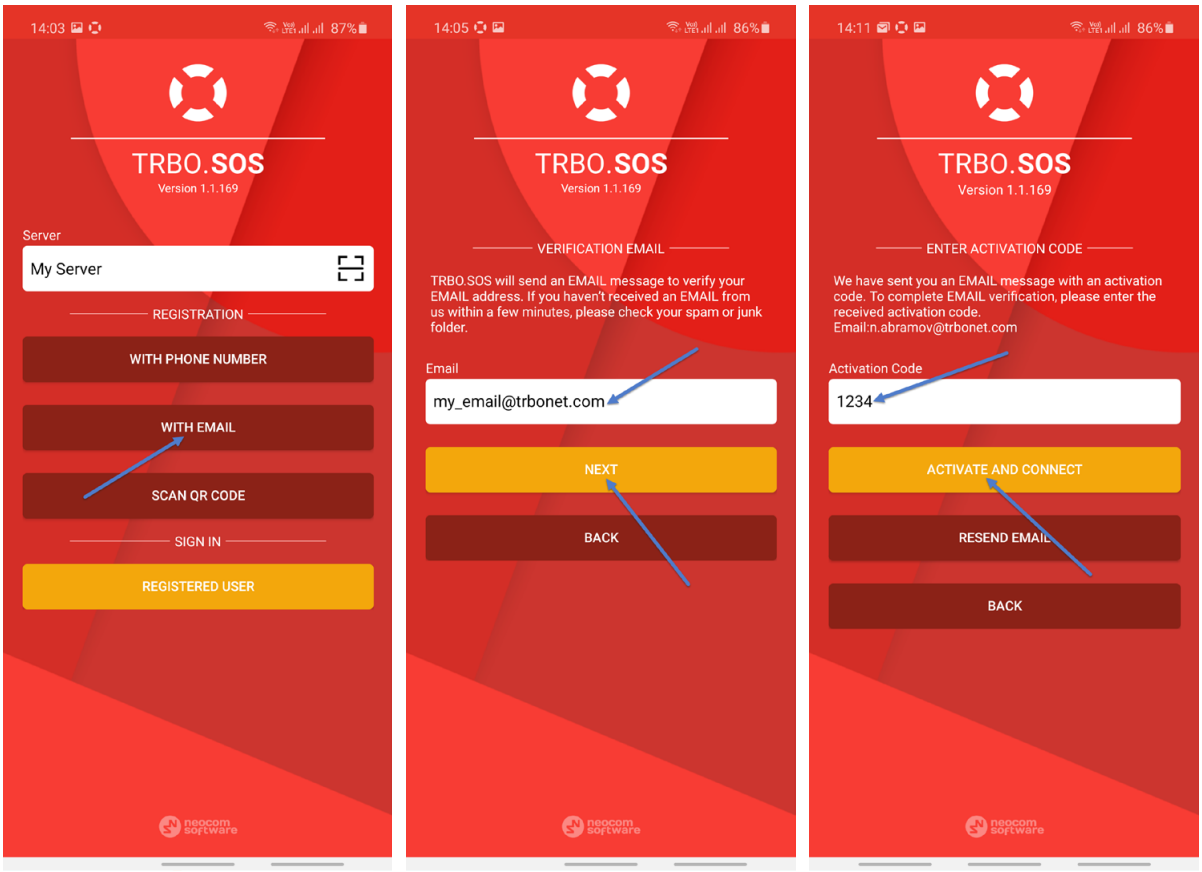
Note: If you haven't received the code within a minute, tap the **RESEND SMS** button to get the activation code again.



5.1.2.2 Registering with Email

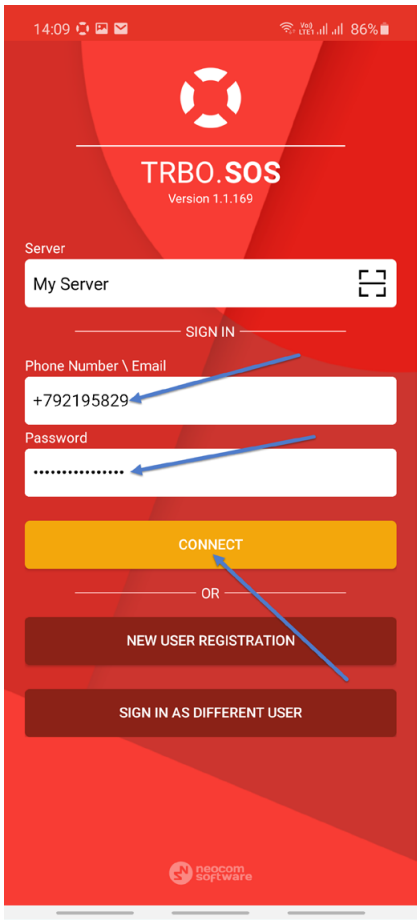
- Tap the **WITH EMAIL** button.
- Enter the email address and tap **NEXT**.
- Enter the activation code you received via Email and the **ACTIVATE AND CONNECT** button.

Note: If you haven't received the code within a minute, tap the **RESEND EMAIL** button to get the activation code again.



5.1.3 Signing in on TRBOnet Server

Once the server is selected, enter the following login parameters:



- **Phone Number \ Email**
  The Login of your TRBOnet Mobile application (this is a case-sensitive value). See also section 4.2.1, Adding TRBO.SOS.
- **Password**
  The Password for your TRBOnet Mobile application.

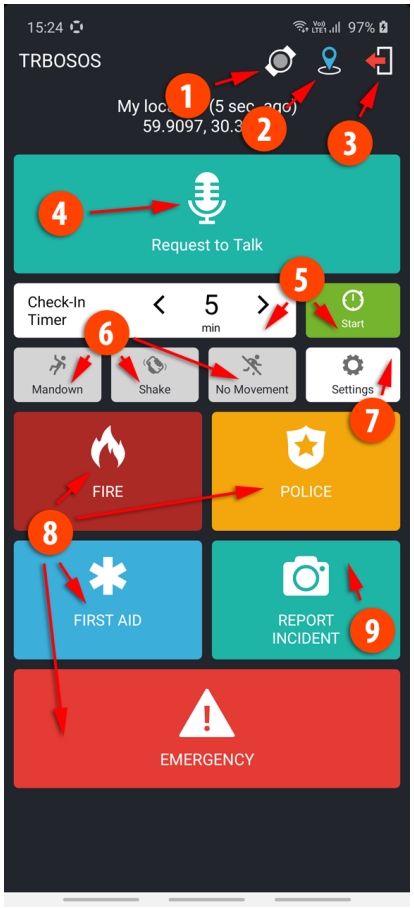
Note: The connection settings in the figure on the left serve as an example. Contact your administrator to get the actual connection settings.

- Tap the **Connect** button.

Note: If the connection cannot be established, make sure that your mobile device is connected to the network.

5.2 Main Page

Once connected, you will see the main page of TRBO.SOS.



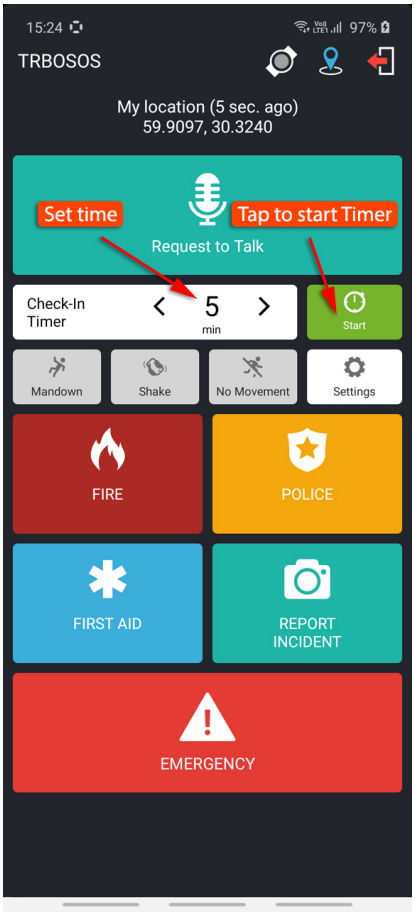
1. V.ALRT Device
   This icon indicates the state of connection to V.ALRT device:
   Green – connected to device
   Yellow – connecting to device (or searching for device)
   Grey – not connected to device
   See section 5.6, Connecting V.ALRT.
2. GPS Positioning
   This icon indicates that the GPS Positioning is enabled in TRBO.SOS Profile (Location tab, Use GPS Location selected).
3. Quit button
   Tap this button to disconnect from the server.
4. PTT button (Request to Talk or Phone Call)
5. Lone Worker buttons
   Select the Check-in Timer value and tap the Start button to start the Lone Worker mode. The Lone Worker buttons appear if they are configured in TRBO.SOS profile, TRBO.SOS tab.

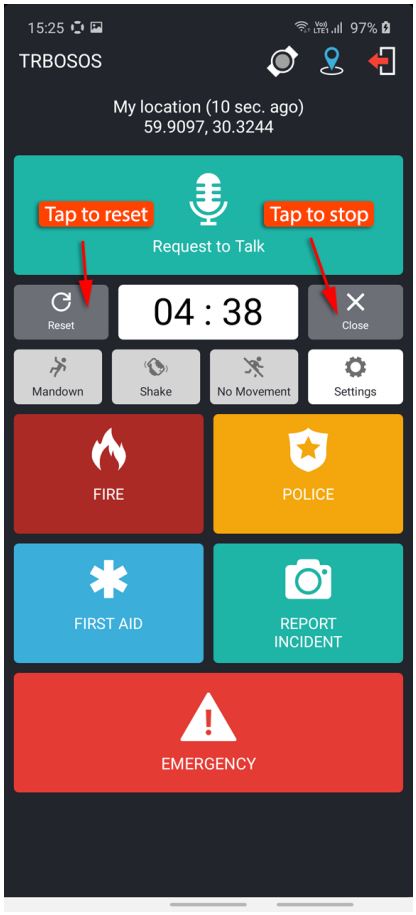
6. Safety Alarm buttons
   If you select the button (selected button turns red), then the corresponding alarm event will be triggered on the device. The safety alarm buttons appear if they are configured in TRBO.SOS profile (Alarms tab).
7. Settings (see section 6, Settings)
8. Panic buttons
   Depending on what is configured in TRBO.SOS profile (TRBO.SOS tab, Panic buttons), you may see up to four panic buttons. Tapping and holding these buttons will send the corresponding alarms.
9. Report Incident button
   To report an incident, tap this button and take a photo to be sent. This button appears if configured in TRBO.SOS profile (TRBO.SOS tab).

5.3 Check-in Timer / Lone Worker

You can also set a Check-in Timer (Lone Worker), which starts a countdown timer to cover the duration of your work session. The timer will count down to zero, starting from your nominated time. At any time, you can tap the timer to stop or reset.

- Tap the **Start** button.
- To reset the timer, tap **Reset**.
- To stop the timer, tap **Close**.

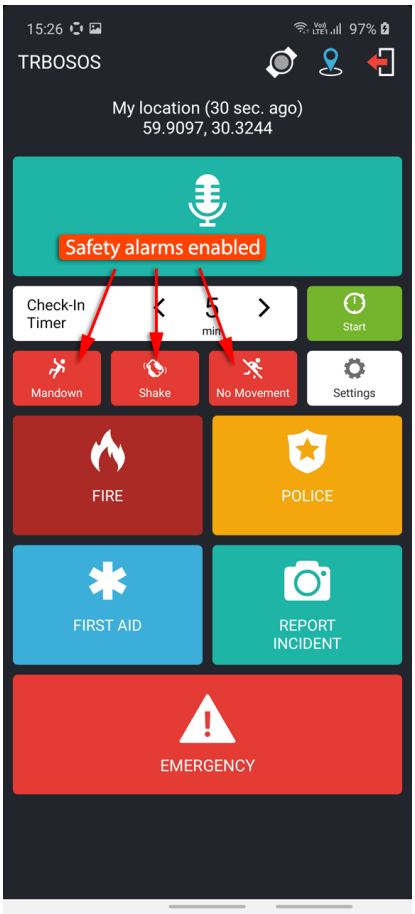




If the timer expires, TRBO.SOS will raise an alert, sharing your location and ID with the corresponding dispatchers.

5.4 Enabling Safety Alarms

You can enable the following safety alarms provided they are configured in TRBO.SOS profile (Alarms tab). Just tap the corresponding button (selected button turns red).



- **Man Down**
  This alarm event is triggered when the smartphone's tilt angle is below the threshold angle for a time longer than the pre-alarm duration.
- **Shake**
  This alarm event is triggered when a user physically moves their smartphone from side to side a couple of times.
- **No Movement**
  This alarm event is triggered when the smartphone's acceleration is below the threshold for a time longer than the pre-alarm duration.

The Safety alarms can be additionally customized. See section 6, Settings.

5.5 Sending Predefined Alarms

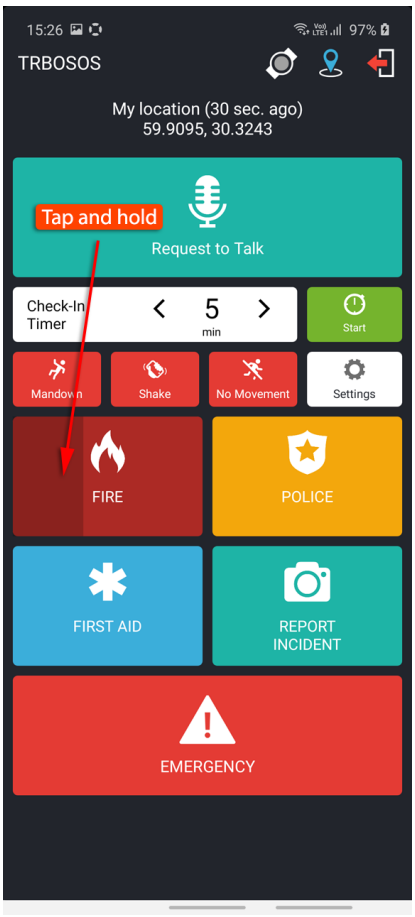
Depending on what has been selected in TRBO.SOS Profile (TRBO.SOS tab, Panic buttons), you can send various alarms by tapping and holding the following buttons:

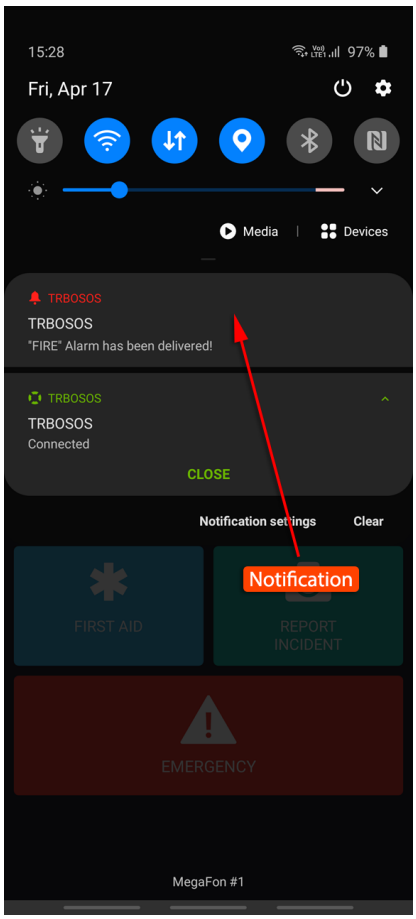
- Fire
- Police
- First Aid
- Emergency

To send an alarm:

- Tap and hold the corresponding button until it vibrates thrice.

  Once the alarm reaches the dispatcher, you will see a notification saying "TRBO.SOS # Alarm has been delivered".





Note: You can also send a pre-defined alarm by long-pressing the connected V.ALRT button. See section 5.6, Connecting V.ALRT Device.

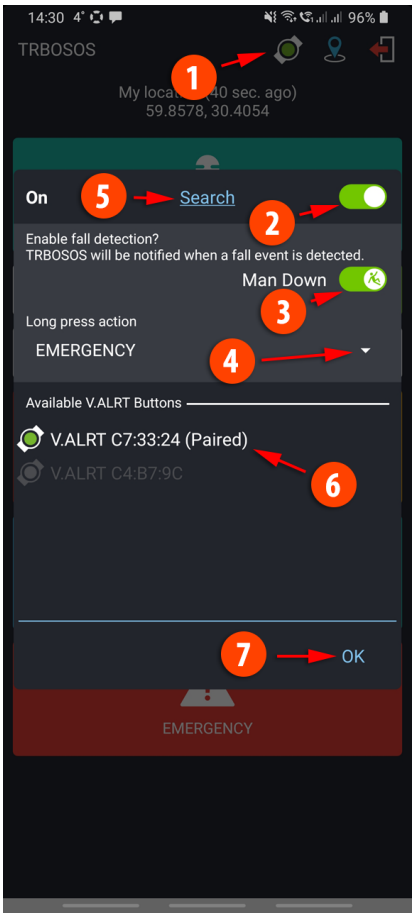
5.6 Connecting V.ALRT Device

You can also use your V.ALRT device connected to the smartphone. You can configure the V.ALRT button to send one of the four pre-defined alarms (Emergency, Fire, Police, or First Aid). In addition, the V.ALRT device can be used for Man Down detection.

- Tap the V.ALRT icon (1) on top of the screen.

  In the pup-up window that opens:

  - Set the module to On (2).
  - Enable the **Man Down** feature (3).
  - Select the specific alarm (4) to be sent upon a **long press** of the V.ALRT button.
  - Tap **Search** (5) to search for available V.ALRT buttons.
  - Tap the paired V.ALRT device (6) you want to connect to.
  - Tap **OK** (7).

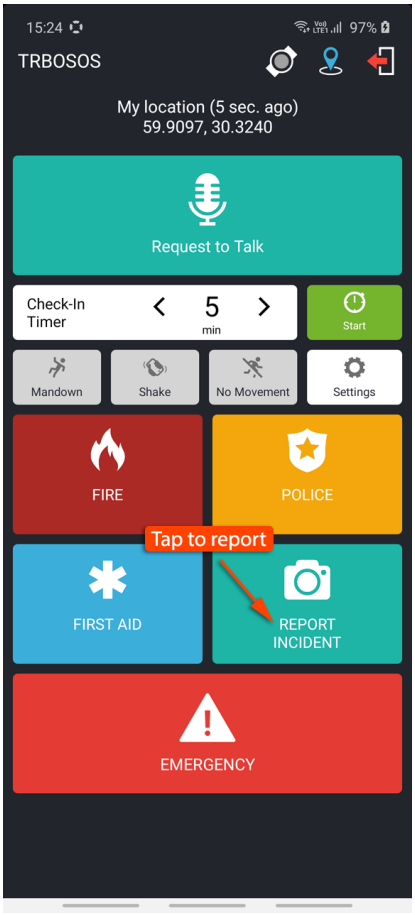


5.7 Reporting Incidents

In TRBO.SOS you can report incidents accompanied by photos directly to the dispatcher.

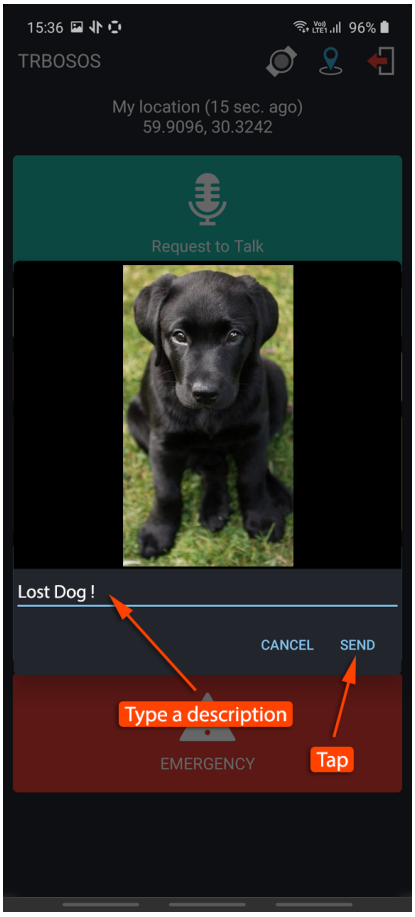
To report an incident:

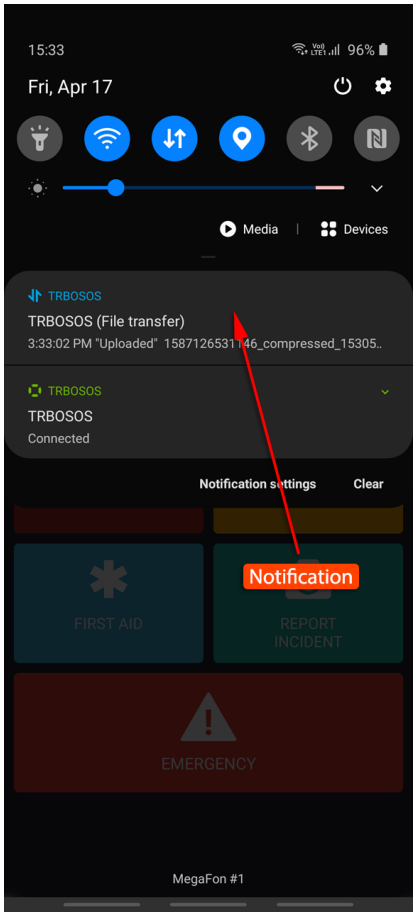
- Tap the **Report Incident** button.
- When the camera opens, take a snap of the incident.



- Once the photo has been taken, enter a description of the accident and tap **Send**.

  Once the report is dispatched, you will see a notification saying "TRBO.SOS (File Transfer) # Uploaded".


15:36
96%
TRBOSOS
My location (15 sec. ago)
59.9096, 30.3242
Request to Talk
Lost Dog !
CANCEL
SEND
Type a description
EMERGENCY
Tap


15:33
96%
Fri, Apr 17
Media
Devices
TRBOSOS
TRBOSOS (File transfer)
3:33:02 PM "Uploaded" 15871265311146_compressed_15305..
TRBOSOS
TRBOSOS
Connected
Notification settings
Clear
Notification
FIRST AID
REPORT INCIDENT
EMERGENCY
MegaFon #1

6 Settings

To configure your TRBO.SOS application, tap the **Settings** button on the main page.

Below is the list of available settings:

Safety

Note: This section appears if the corresponding options are selected in the associated TRBO.SOS Profile (see section 4.2.2, Adding TRBO.SOS Profile, Alarms tab).

- **Man Down Detection**

  These are the settings for Man Down Detection when the device is carried in a pocket.

  - **Vertically oriented**
    Choose this option when the device is oriented vertically in the pocket.
  - **Horizontally oriented**
    Choose this option when the device is oriented horizontally in the pocket.
  - **Orientation doesn't matter**
    Choose this option when the device may be oriented either vertically or horizontally in the pocket. Note that choosing this option may result in a decreased sensitivity.
  - **Not used**
    Select this option the device is not carried in a pocket. Note that choosing this option may result in a decreased sensitivity.

- **Shake Detection**

  These are the sensitivity grades for Shake Detection. There are five sensitivity grades: Very-High, High, Medium, Low, and Very-Low.

- **Pre-Alarm Time Interval**

  Choose the time interval, in seconds, between triggering the event and sending the corresponding alarm.

- **Pre-Alarm Effects**

  Select one or all of the effects (Vibrate, Sound, and Flash Blinking) that will take place when the corresponding alarm event is triggered on the device.