



safemobile

SafeBridge, All there is to know

SafeMobile



Contents

System requirements.....	4
Programming the station	4
1. Downloading demo codeplugs	4
2. Unzipping demo codeplugs.....	5
3. Open proper codeplug	5
4. Write the codeplug to the client station	5
5. Handle the errors	6
6. Write codeplug to the Base Station.....	7
Connecting the SafeBridge to the Base Station	7
Installing RadioPad™ on Android Device.....	8
1. Connect to Internet.....	8
2. Install RadioPad™	9
Working with RadioPad™	11
1. Making a call.....	13
2. Receiving a call.....	15
3. Changing Zone and Channels.....	16
4. Display a conversation	16
5. Emergency ON/OFF	17
6. Sending a text message.....	18
7. Scanning a barcode.....	20
8. Receiving a text message	21
9. Playing a recording	22
10. Deleting a recording.....	23
11. ManDown & Motionless.....	24
12. RadioPad Settings	25
RadioPad™ and BluComm Mic.....	25
1. Connecting BluComm.....	25
2. Selecting BluComm in RadioPad.....	26
3. Using BluComm.....	27
What-a-Pair System.....	27

1. Connecting the What-a-Pair SafeBridge.....	27
2. Connecting to What-a-Pair SafeBridge.....	28
3. Changes in RadioPad.....	28

System requirements

In order to set-up the SafeBridge system you will need the following:

- one Motorola TRBO Base Station [model **DM3401**, **DM3601** or **DM4601**] or Motorola TETRA Base Station [model **MTM800E**]
- one Motorola Portable Station, similar with the Base Station type [model **DP3601** or **DP4601** for TRBO and model **MTP850S** for TETRA]
- one SafeBridge according to the station type, TRBO or TETRA
- one voltage stabilizer power supply
- one radio antenna
- one Android Device with RadioPad™, RadioPod™, TRBO or TETRA version



Fig. 1 - System requirements

Programming the station

The Base Station and the portable one will need to be programmed before using them with the SafeBridge. In order to do this, you will follow the next steps:

1. **Downloading demo codeplugs** - First you will have to download the demo codeplug for your station. This codeplug is configured with six channel divided into two zones [4 channel in first zone, and 2 channels in the second], a list of private contacts and

group contacts. The codeplug can be downloaded from this address:
<http://app2.safemobile.com/upload/Democodeplugs.zip>

- 2. Unzipping demo codeplugs** - After the Democodeplugs.zip file is saved, you will need to unzip it by clicking right mouse button and then selecting 'Extract All...'. When finished, you will find two folders [see figure 2] named 'baseStation' and 'ClientStation'.

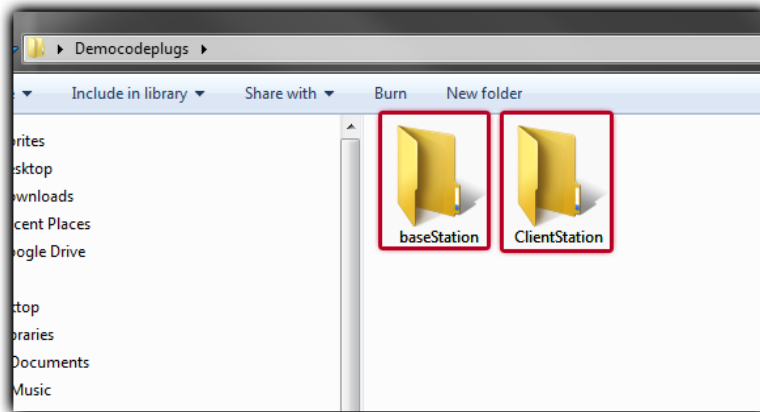
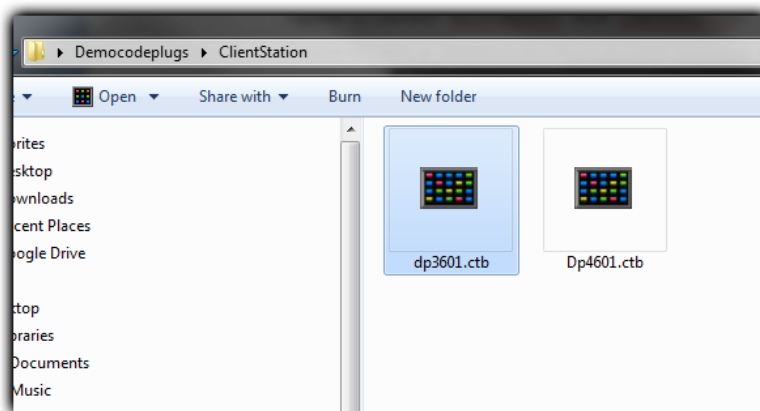
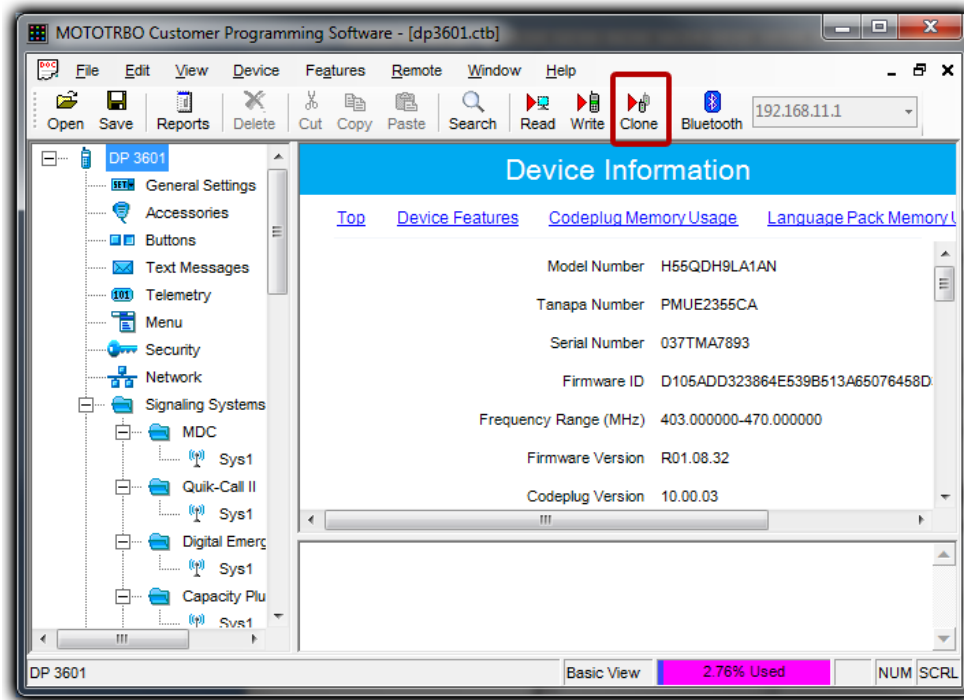


Figure 2 - Extracted folders

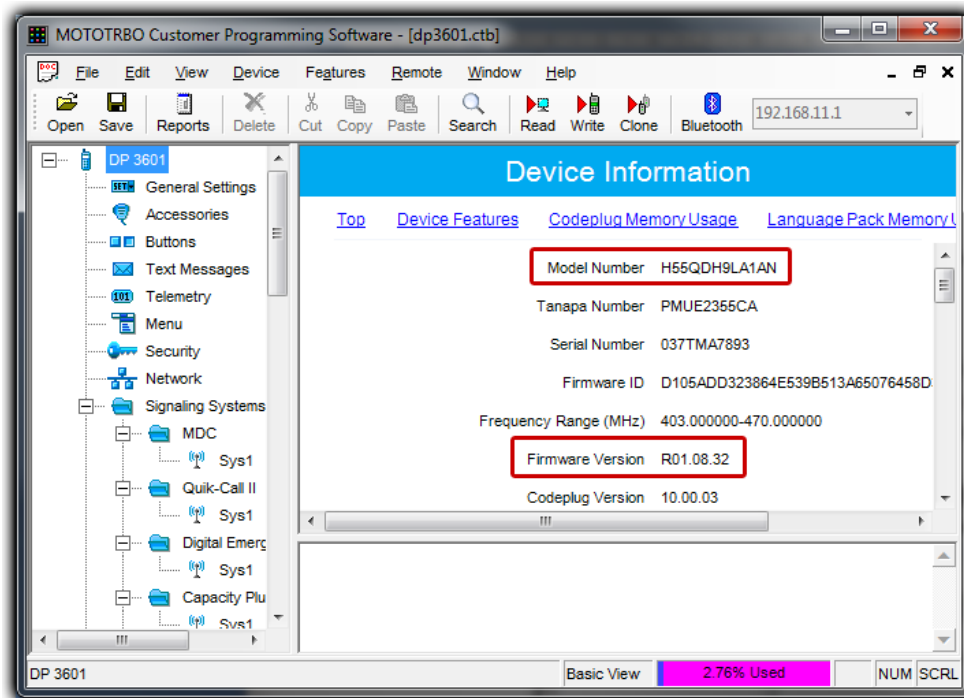
- 3. Open proper codeplug** - Open the ClientStation folder and then double click on DP3601 file [you will select the file according to the type of station used]. This is a ctb file that needs Motorola CPS to be installed on the resident computer



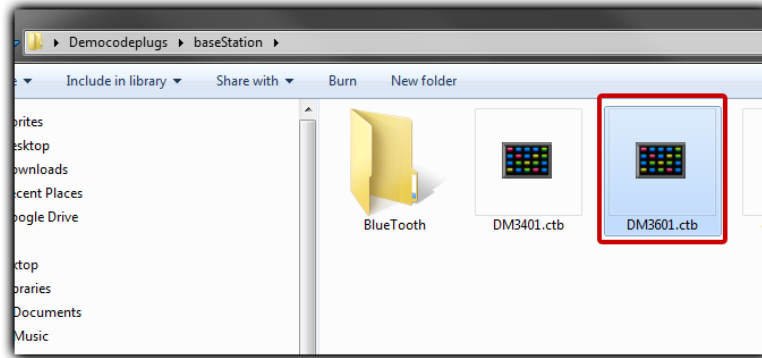
- 4. Write the codeplug to the client station** - After the Motorola CPS opens, you will press the 'Clone' button to write the codeplug to the station.



5. **Handle the errors** - If the operation fails to complete, check if the station is connected, or that the model number and firmware version coincide.




6. **Write codeplug to the Base Station** - Now disconnect the client station and connect the base station. You will repeat the steps 3 and 4, with the mention that the file is located into 'BaseStation' folder.



Connecting the SafeBridge to the Base Station

The connection of the SafeBridge to the Base Station implies only plugging the accessory connector from SafeBridge into Base Station connector [the same connector where you plug in the programming cable]. This should be done with the Base Station **turned off**.

 Before doing this, you should check in CPS that '**Forward to PC**' option is checked [if using demo codeplugs this option should be already checked].

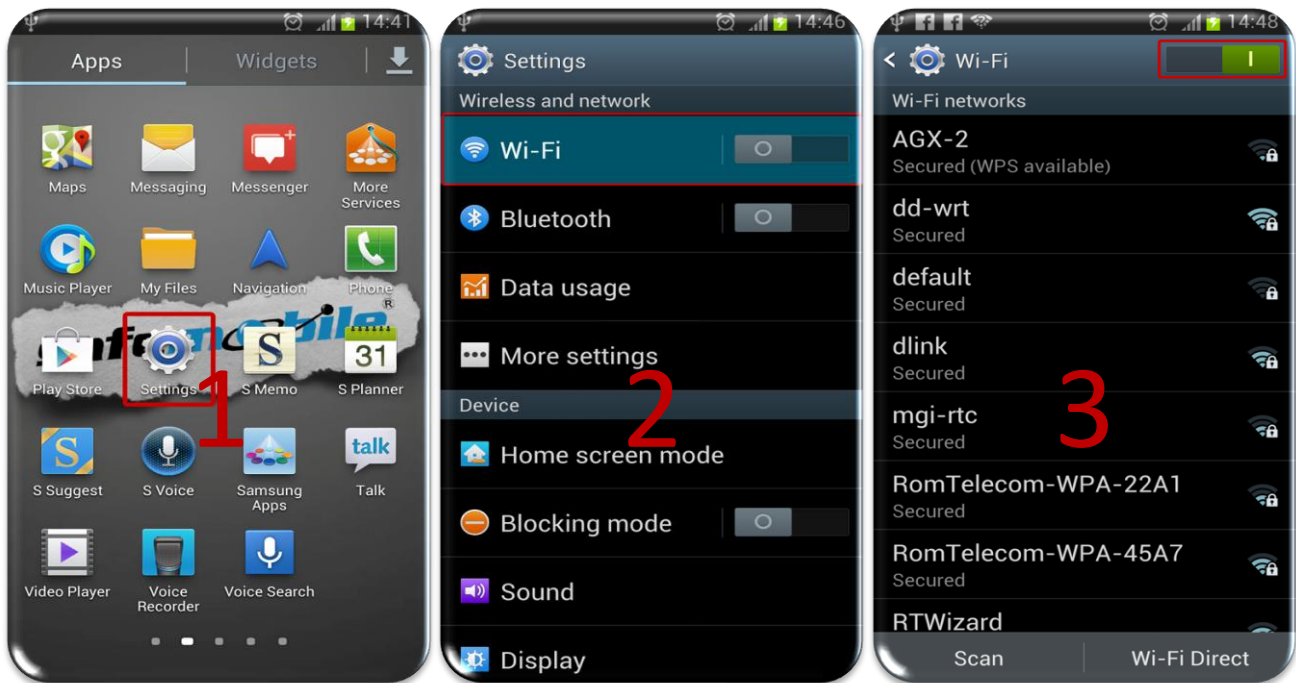


Once the SafeBridge is connected, you can turn the Base Station on. The SafeBridge's led should light up. After 20-30 seconds you should hear a sound telling you that the SafeBridge is initialized and connected properly.

Installing RadioPad™ on Android Device

RadioPad™ is the Android application that will connect to SafeBridge through a Wi-Fi connection, and allows to control the Motorola Station on which the SafeBridge is connected. To download and install the RadioPad™ you will have to:

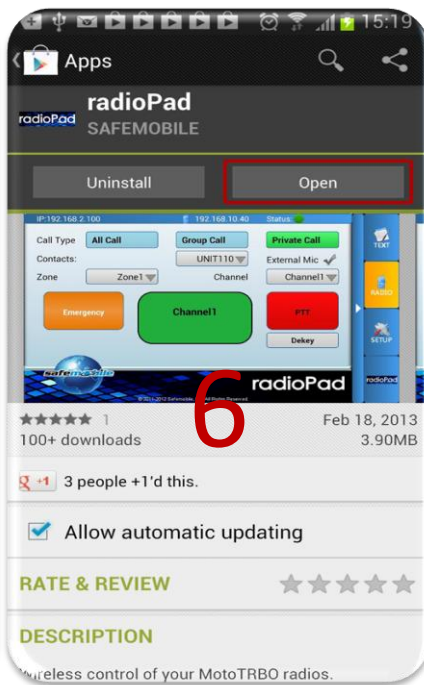
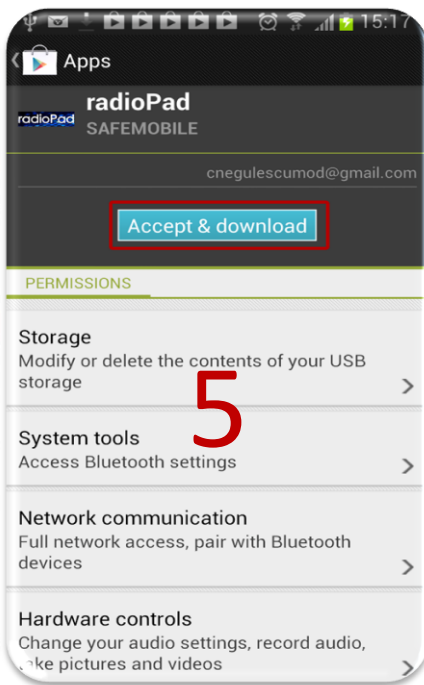
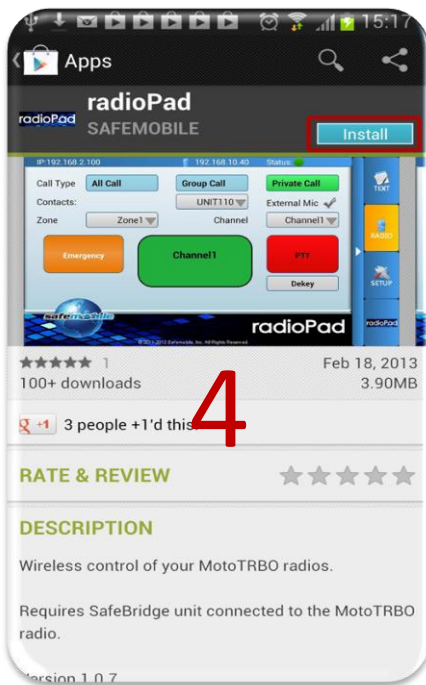
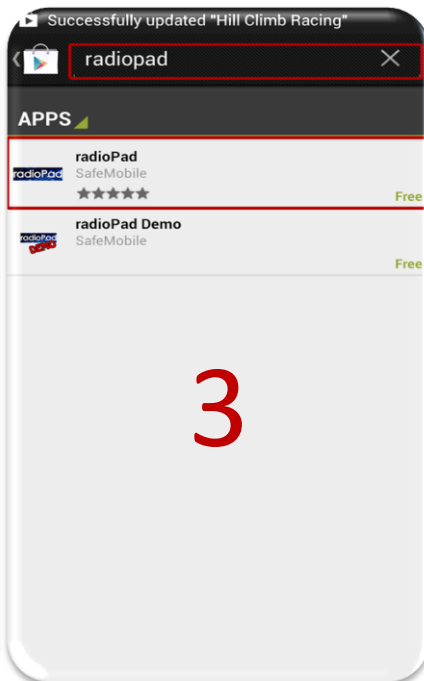
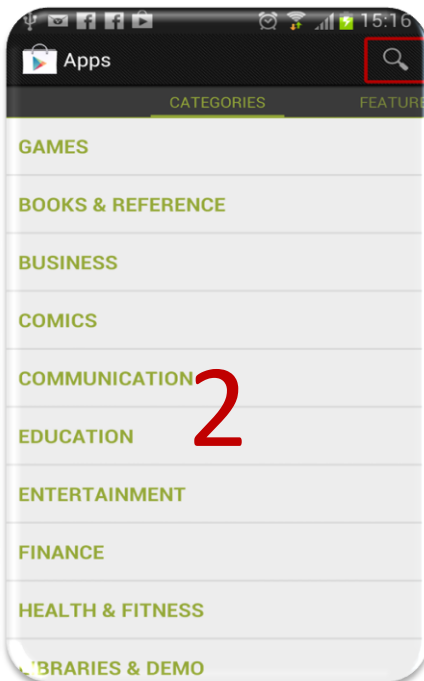
1. **Connect to Internet** - Provide a connection to Internet to you Android Device [see images below]. You will select Settings[1] and the Wi-Fi[2]. Now you have to activate the Wi-Fi by switching the button in the top right, from OFF to ON position[3]. After the list of available connections are displayed, you will choose one internet connection (not all Wi-Fi connections allows internet access) and a dialog appears. Enter the password, if required and then press Connect[4]. When everything is done, you will see the list with the Wi-Fi connections displaying on the first position the connected Wi-Fi[5].

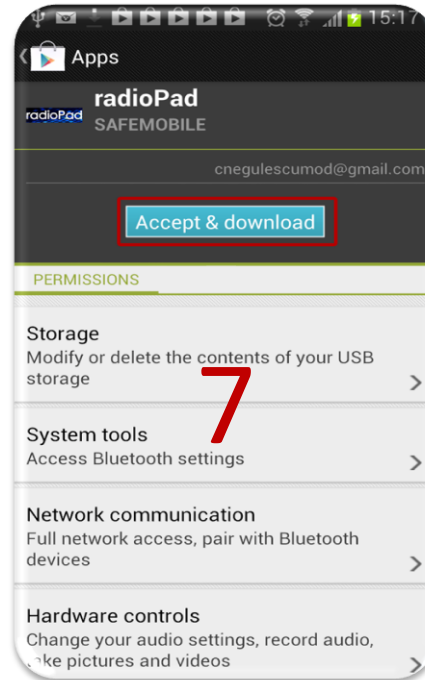




2. Install RadioPad™ - The installation of RadioPad™ is done from Play Store. The steps presented bellow are similar for any application.

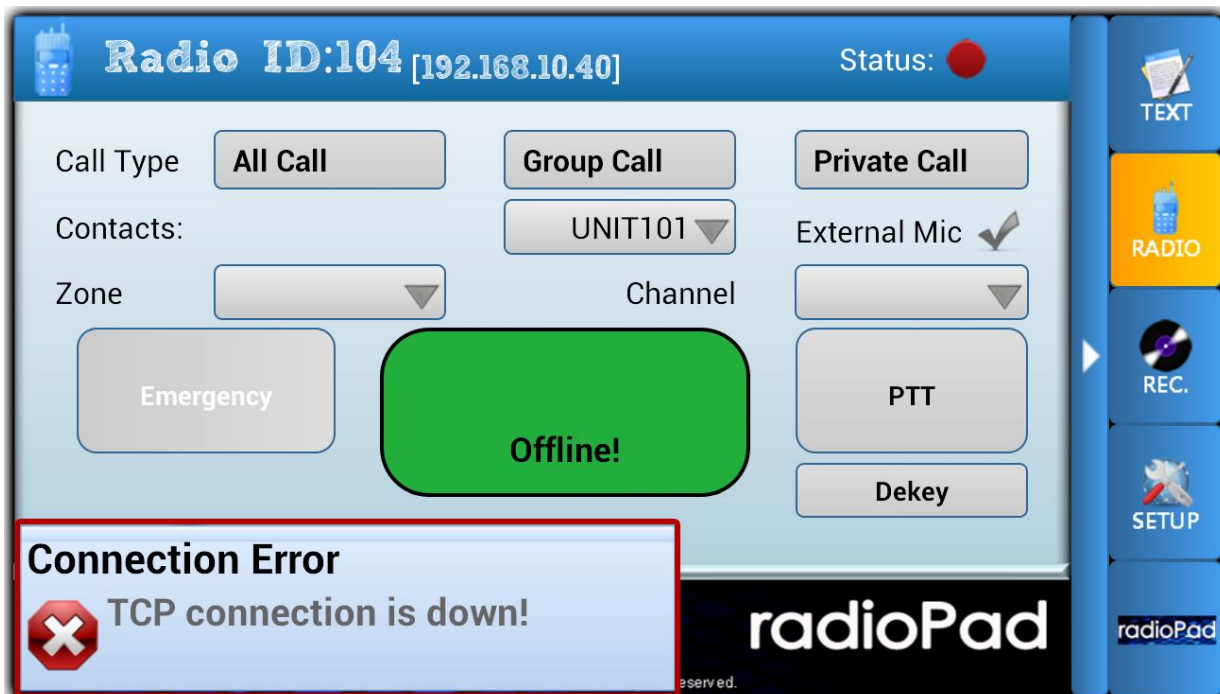
- a) In the application list, select '**Play Store**'[1];
- b) Press the search button placed in top right of the screen [2];
- c) After typing 'radiopad' a list containing radioPad and radioPad Demo will appear. You will select radioPad [3];
- d) Now you can select Install [4];
- e) A list with permissions will be displayed, permissions that allows RadioPad to save recordings, play sound, use network connections and others, in order to provide all the functionality. Press 'Accept & download' to install [5] ;
- f) Once the installation process is finished, you will be able to uninstall the application, or select 'Open' to launch RadioPad. Press this last button, placed in top right of the screen [6];
- g) If you decide not to open the application, you can always find a shortcut to it on the main screen and on one page of you applications list [7].



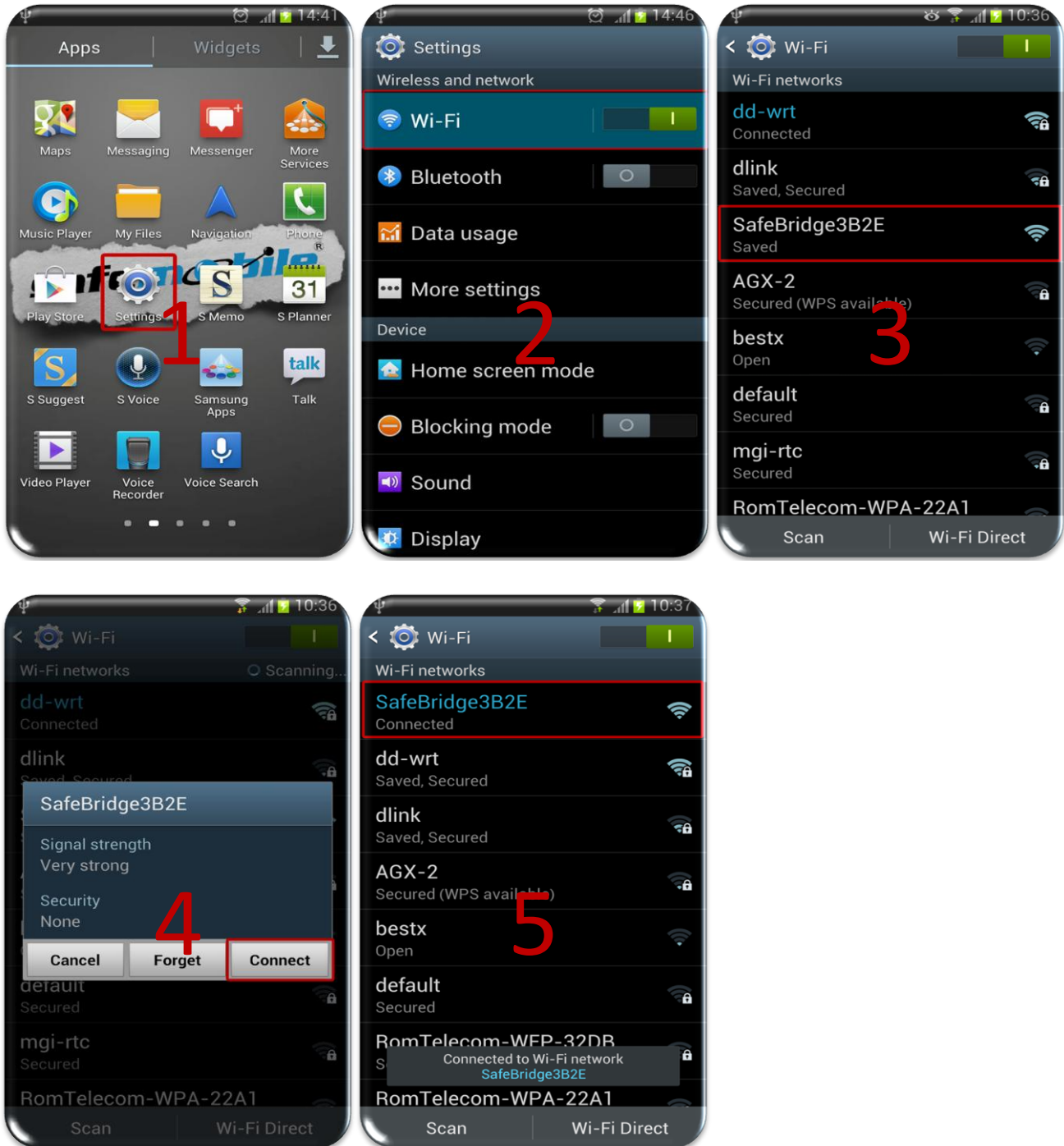


Working with RadioPad™

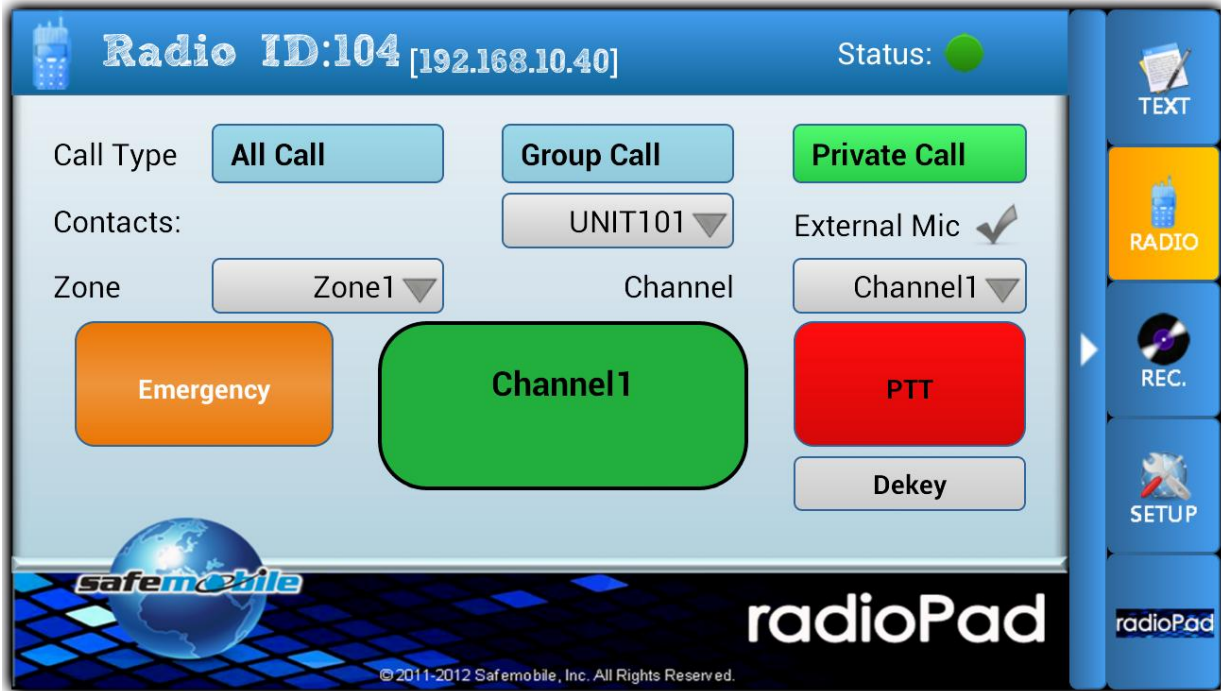
Once you've opened RadioPad, you will see in the bottom left corner a message telling you that the TCP connection between RadioPad and SafeBridge could not be done.



The reason for this error is that you are not connected to the SafeBridge Wi-Fi network. In order to do this, you go back to Settings, Wi-Fi and connect to SafeBridge3B2E. See steps from 1 to 5 presented bellow.



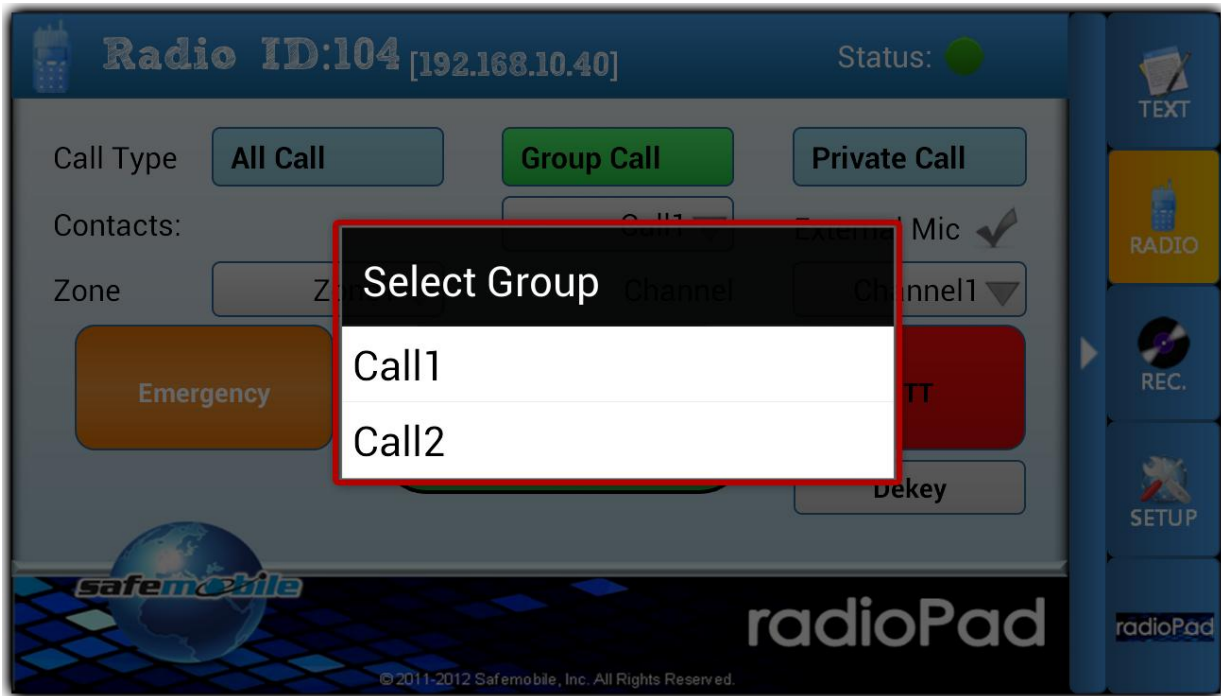
Now you can return to RadioPad and yhe application should look like this :



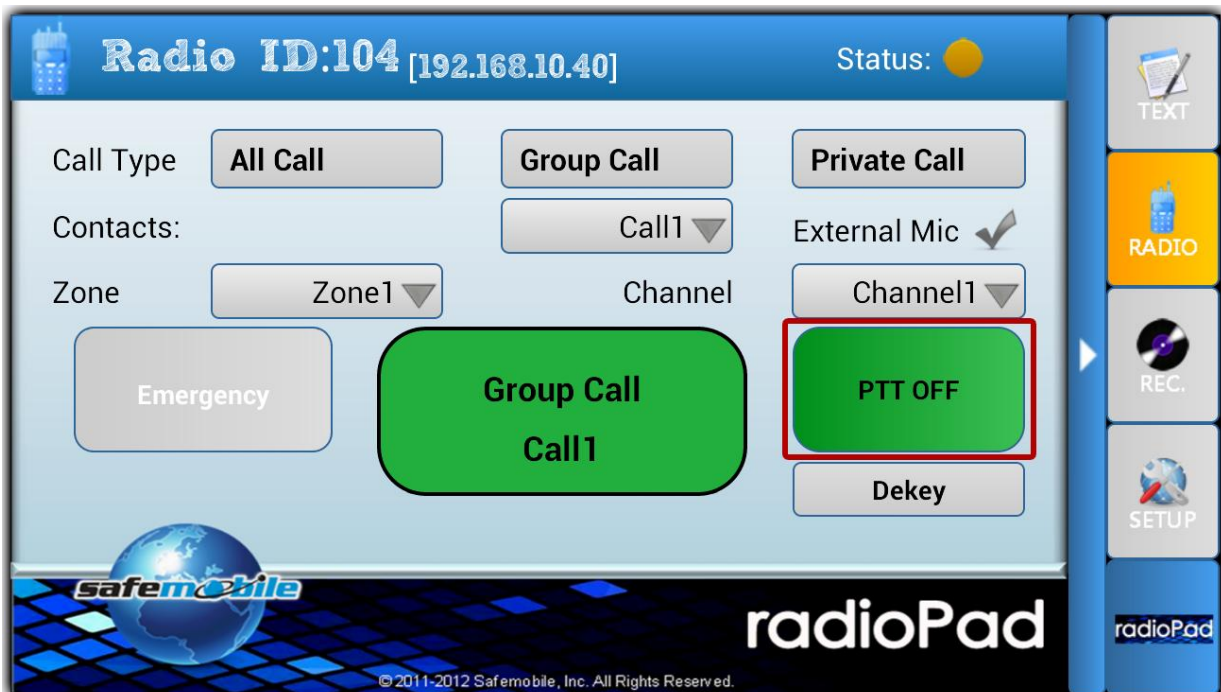
1. **Making a call** - Now that we are connected, in order to make a call, you will select the call type by clicking on the desired button "**All Call**", "**Group Call**", "**Private Call**".



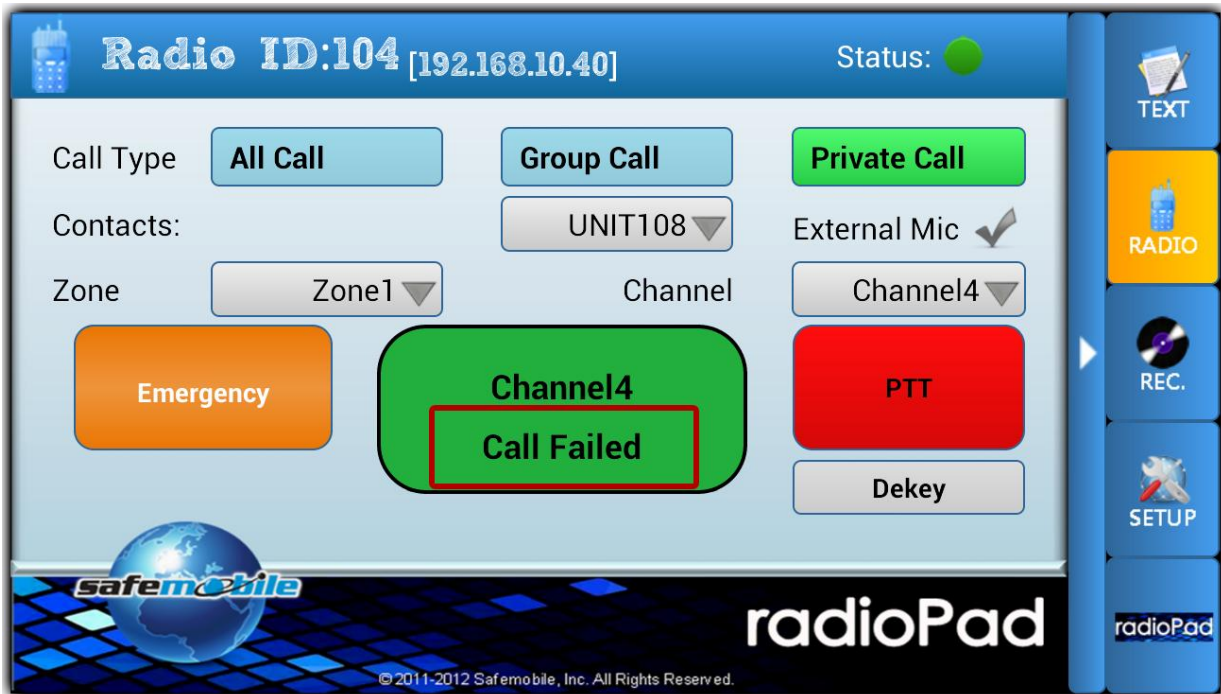
In the case of "**Group Call**" and "**Private Call**" you have to select the Group Name or Subscriber that you want to call from '**Contacts**' combobox.



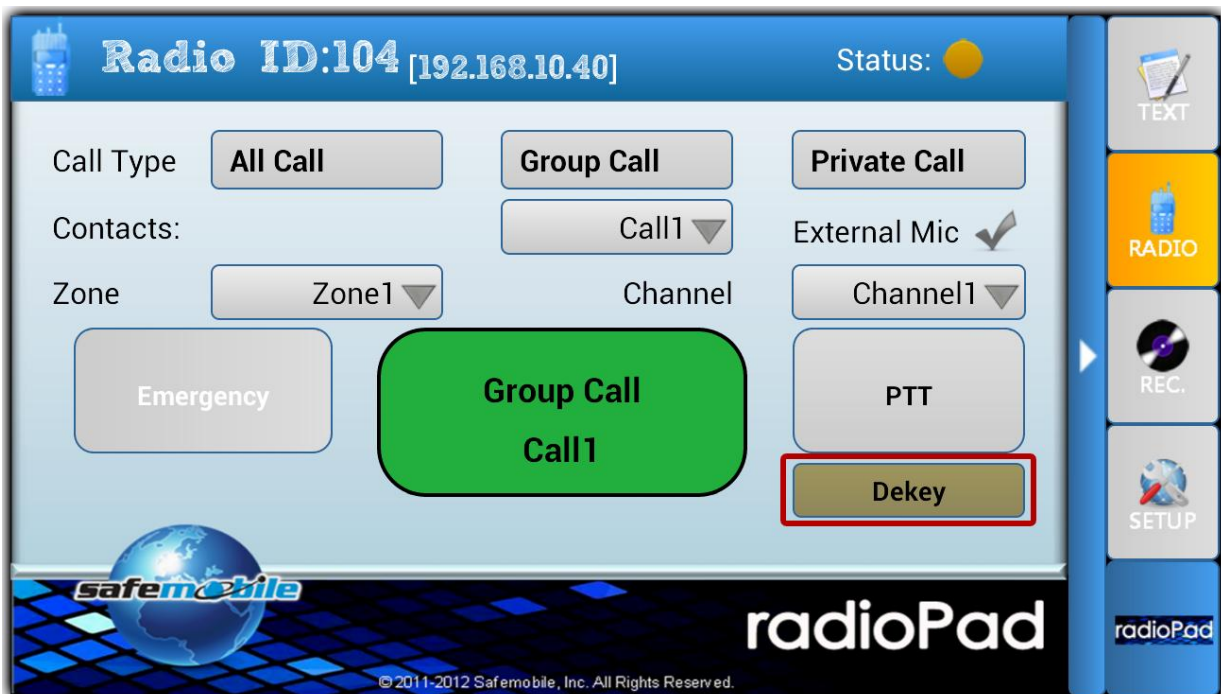
Once you have selected the call type and the subscriber/subscribers that you want to call, you will press the '**PTT**' button, and '**PTT OFF**' to stop it.



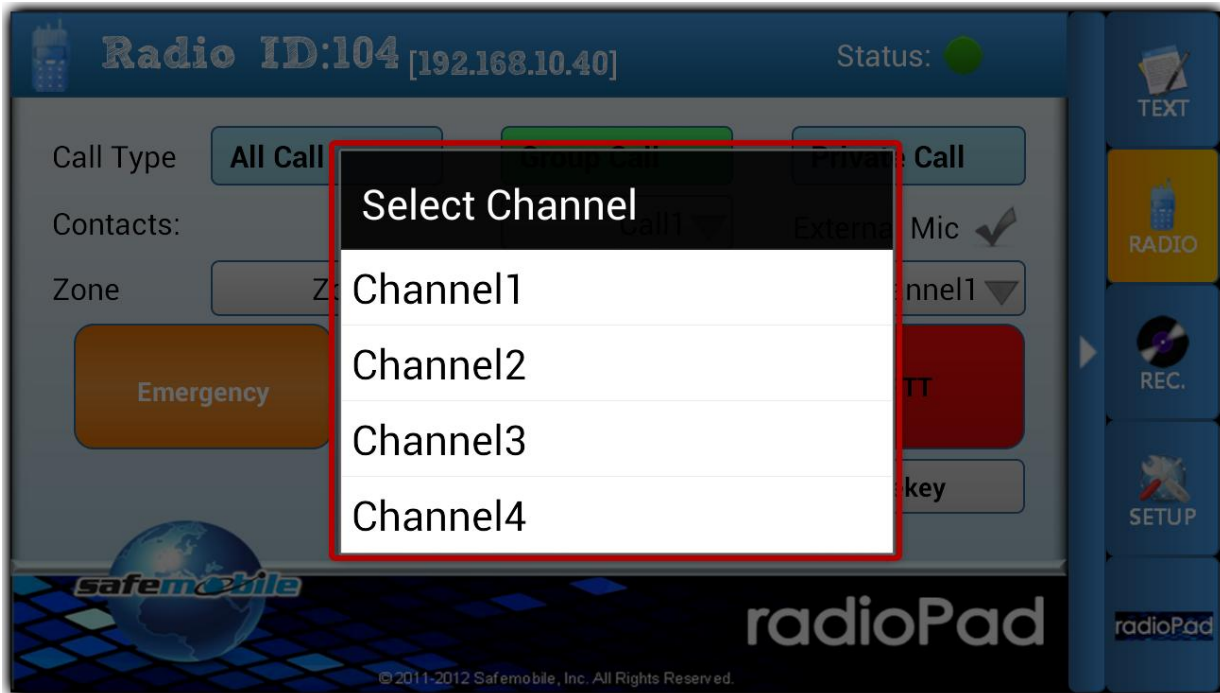
In some extreme cases, the call fails to complete, in which you will see a message 'Call Failed' after the message 'Initiating Call'.



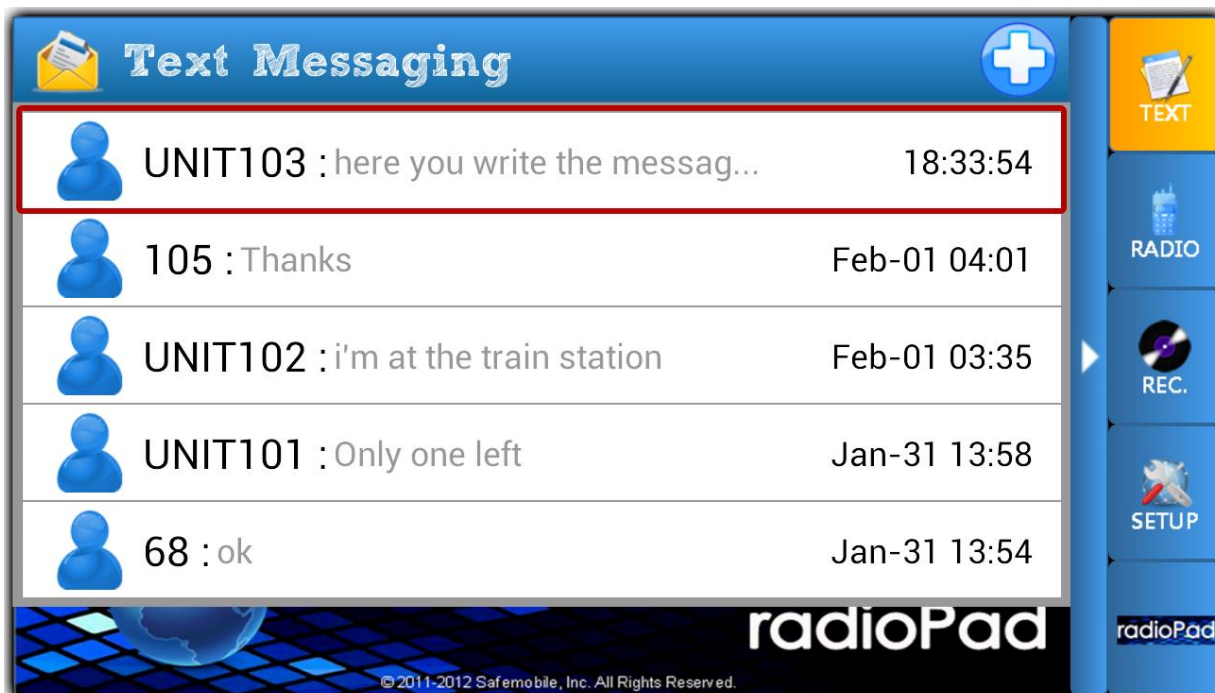
2. **Receiving a call** - When receiving a call the interface will be disabled with the exception of 'Dekey' button that allows you to interrupt the call if wanted.



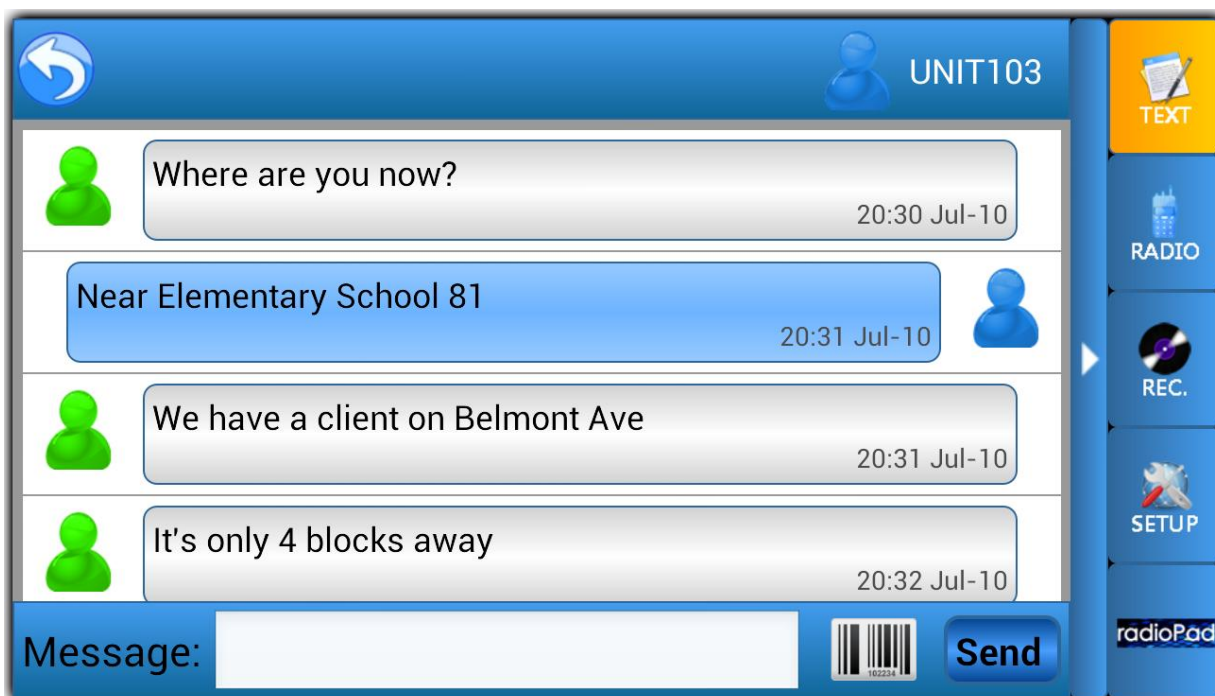
- 3. Changing Zone and Channels** - In order to change the zone and channels, all you have to do is to press on the zone button or channel button and select a value from the list. When the Ack message is received from SafeBridge you will see the modification that you wanted in the interface.



- 4. Display a conversation** - If you want to see the conversation that you had with a particular subscriber, you will select, from Text Message Tab, the row of the desired conversation.



The conversation will display sent messages with green icon and received messages with blue icon.

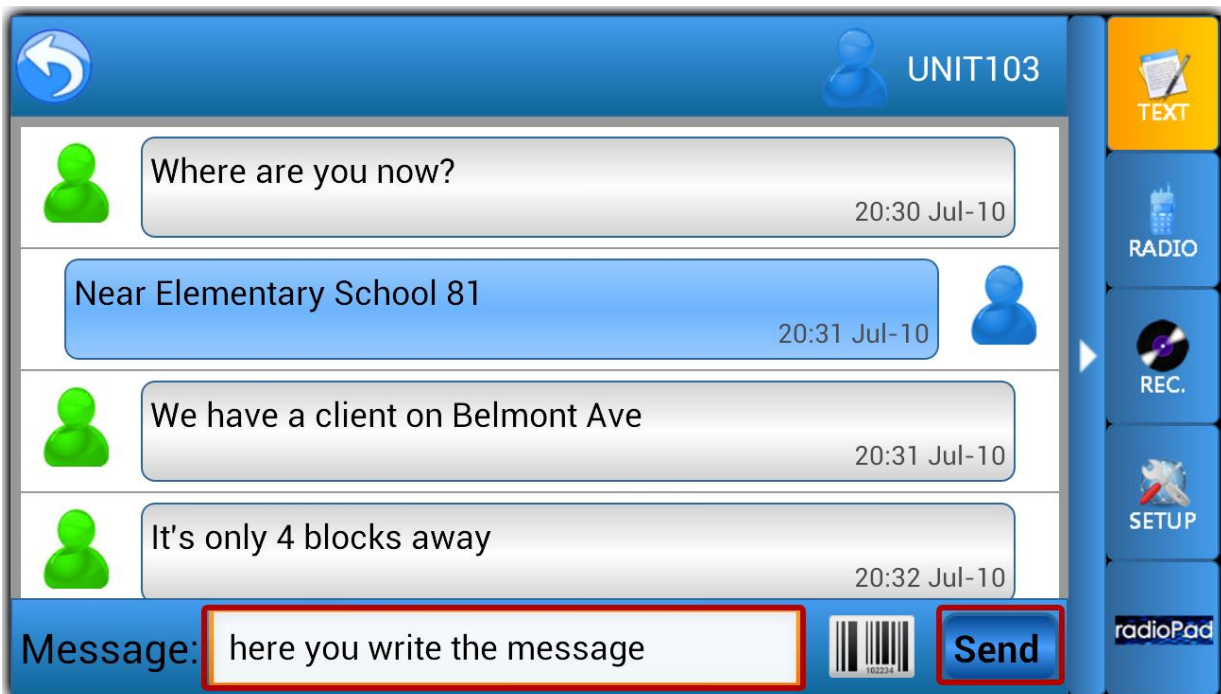


5. Emergency ON/OFF - Emergency is activated by the press of the button with the same name. If the emergency is successfully sent, the background of the button will change color. To stop the emergency you will press again the button.

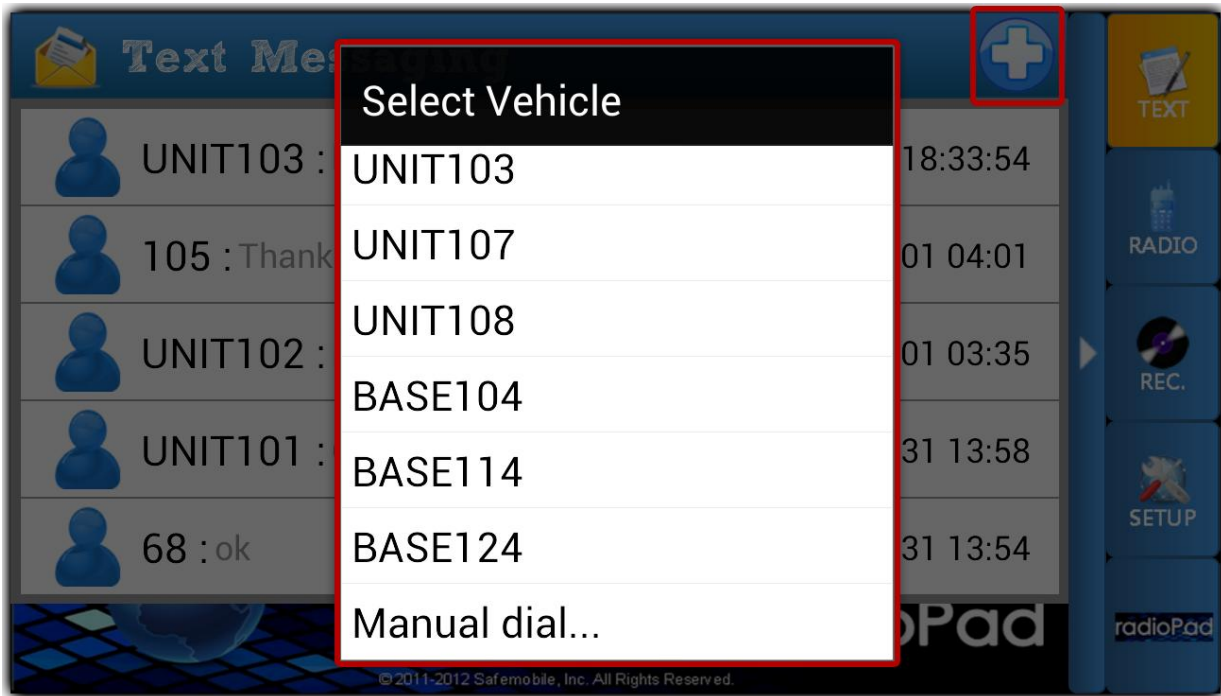


If something will go wrong with sending/ stopping the emergency, a message will appear on to the display.

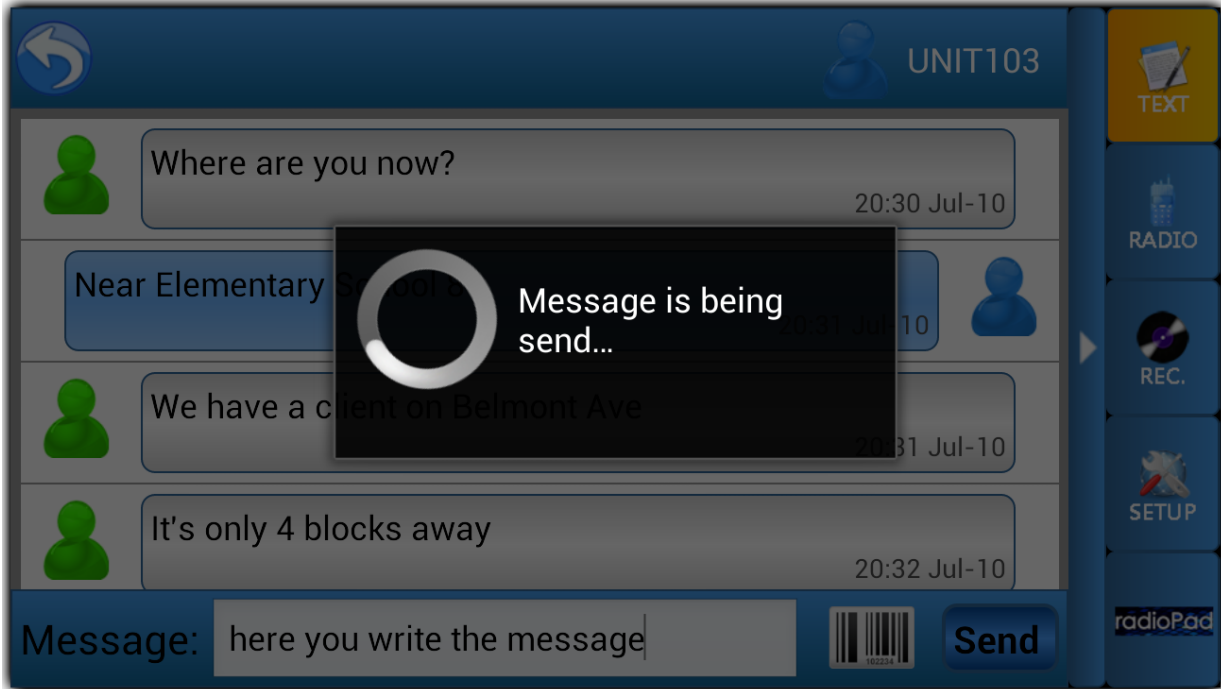
6. **Sending a text message** - To send a message all you have to do is to display the conversation with the subscriber that you want to send a text message, compose the message, no larger than 255 characters and click 'Send'.



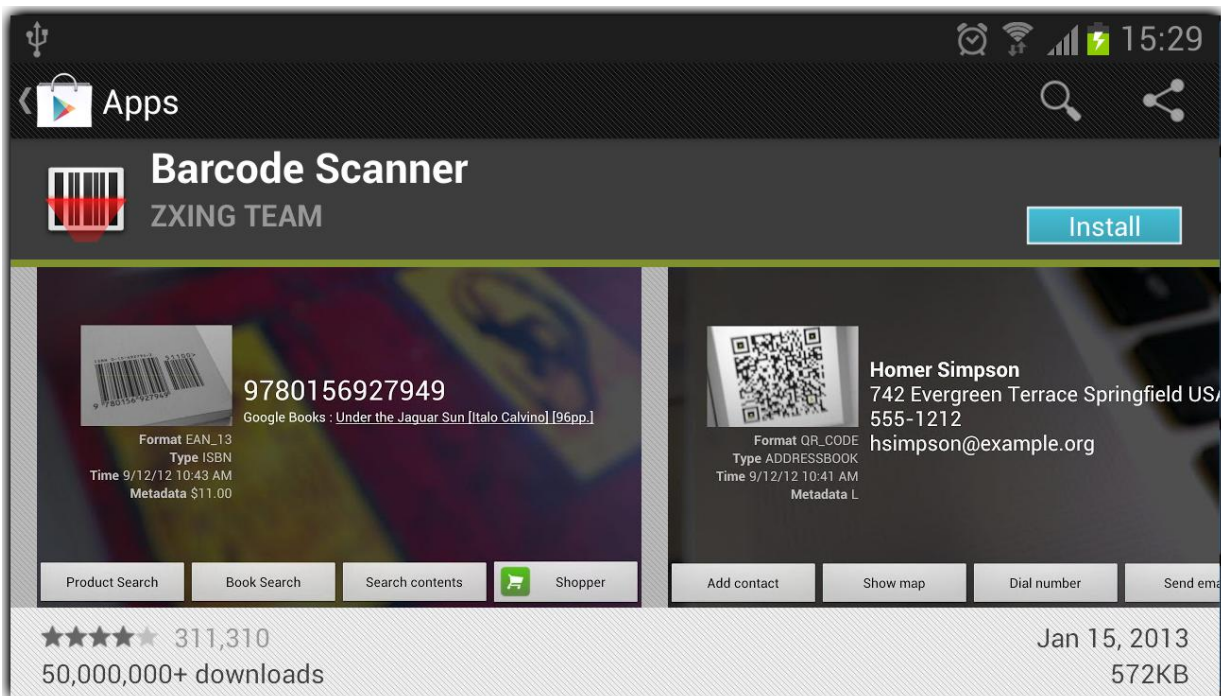
If you want to send a message to someone with who you hadn't any conversation before, you could do this by selecting '+' button in the top right and select it from the list or dial the subscriber's radio id. After that, you will follow the standard procedure.



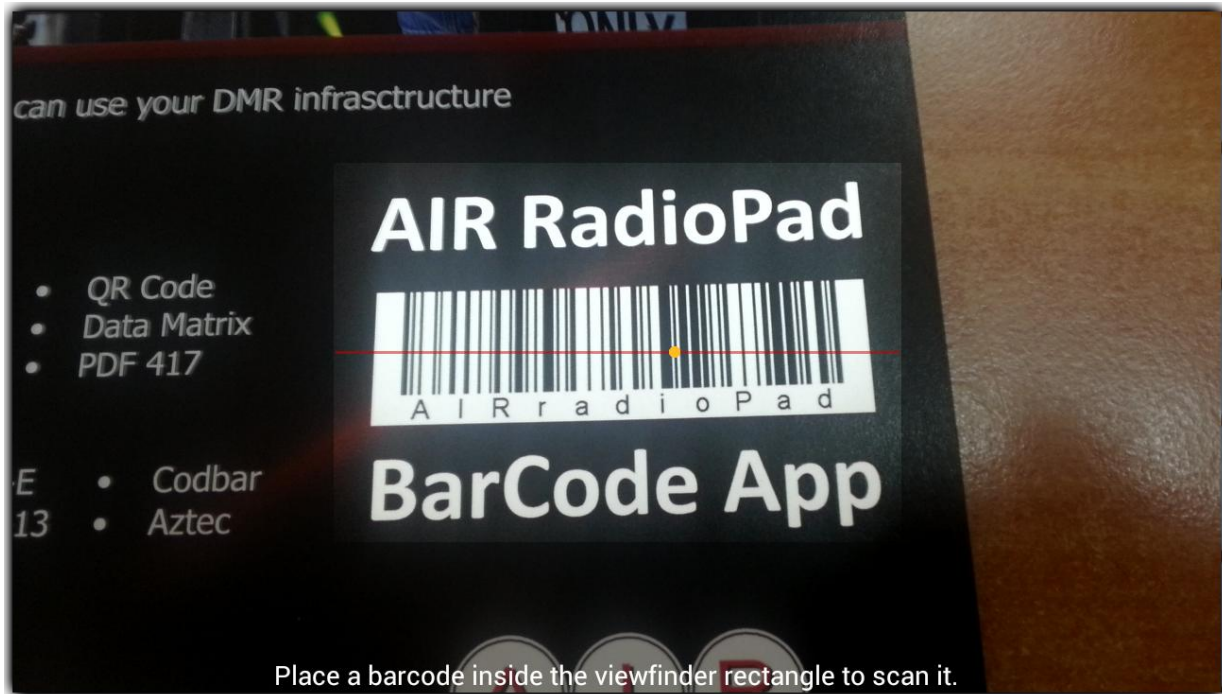
⚠ When you send the message, a '**Sending message...**' dialog will appear until the ack message is received. If no ack is received, the message will not be added into the database, and you will receive the message '**Error on sending message. ACK not received**'.



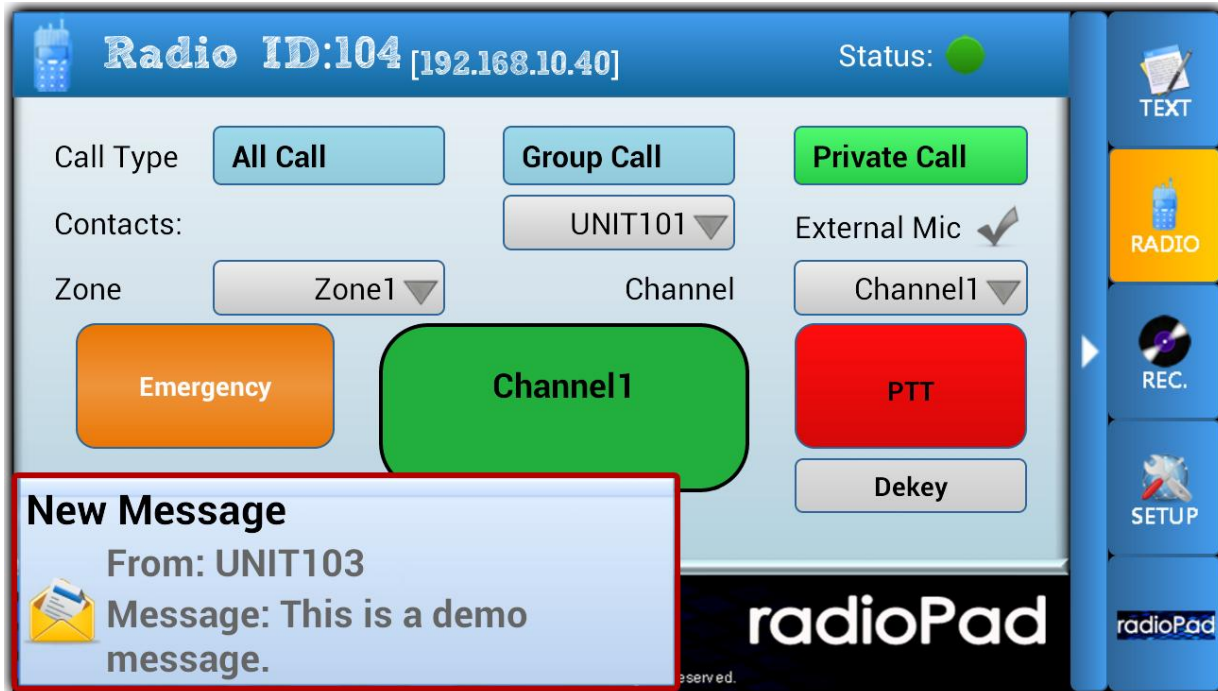
7. **Scanning a barcode** - RadioPad offers the possibility of scanning barcodes using the application from ZXing, Barcode Scanner [you have to download it from Play Store - <https://play.google.com/store/apps/details?id=com.google.zxing.client.android>]. The process of installing Barcode Scanner is similar with the one of installing RadioPad.



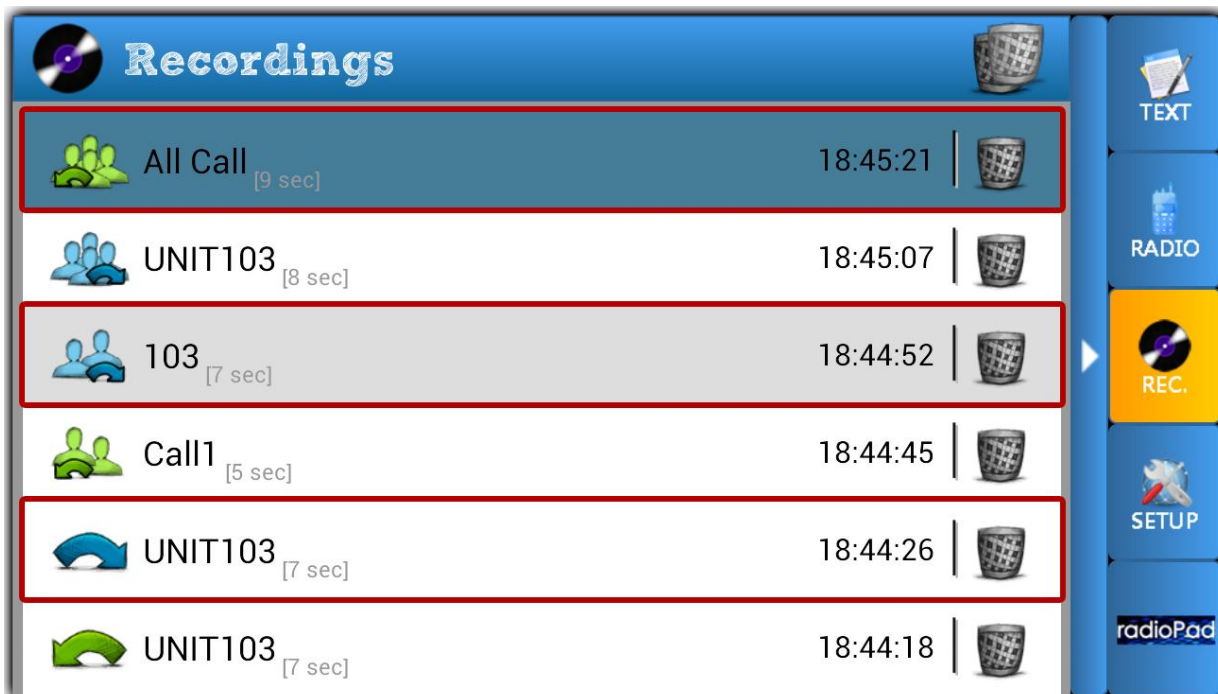
When in a conversation with a subscriber, click the **Barcode icon** [placed to the left of 'Send' button] to open the application that scans barcodes. You have to place the barcode into selected area of the screen and wait until the barcode becomes clear [this is the case of autofocus cameras, in the case your camera doesn't have autofocus you'll have to close in/out the Android device until the image becomes clear].



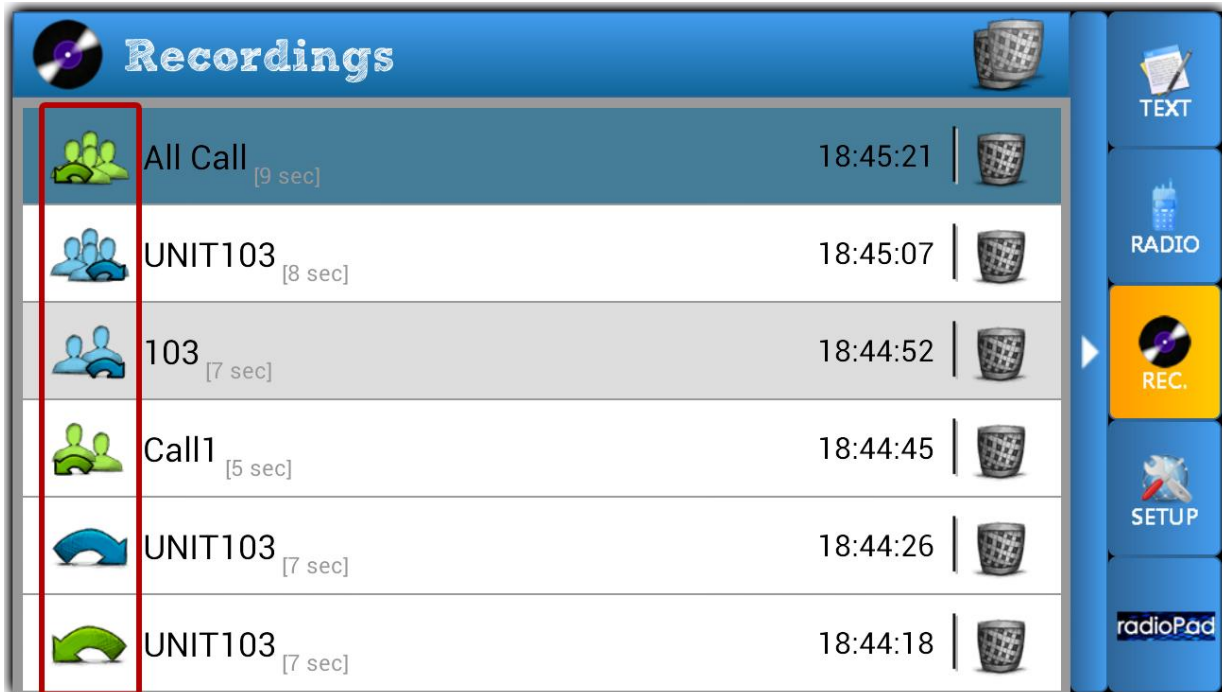
8. Receiving a text message - When a text message is received, a pop-up will appear in the bottom left of the screen containing the sender and the message. When clicking on it, you will be redirected to the conversation with this person. This pop-up appears only when you are not in the '**Text Message**' tab.



9. **Playing a recording** - In the '**Recordings**' Tab you can play any recording only by clicking on it. In the same manner you can stop it. The state of the recordings will vary from gray background for the recordings that aren't saved in the memory of the Android device, white for available recordings and turquoise for playing recording.

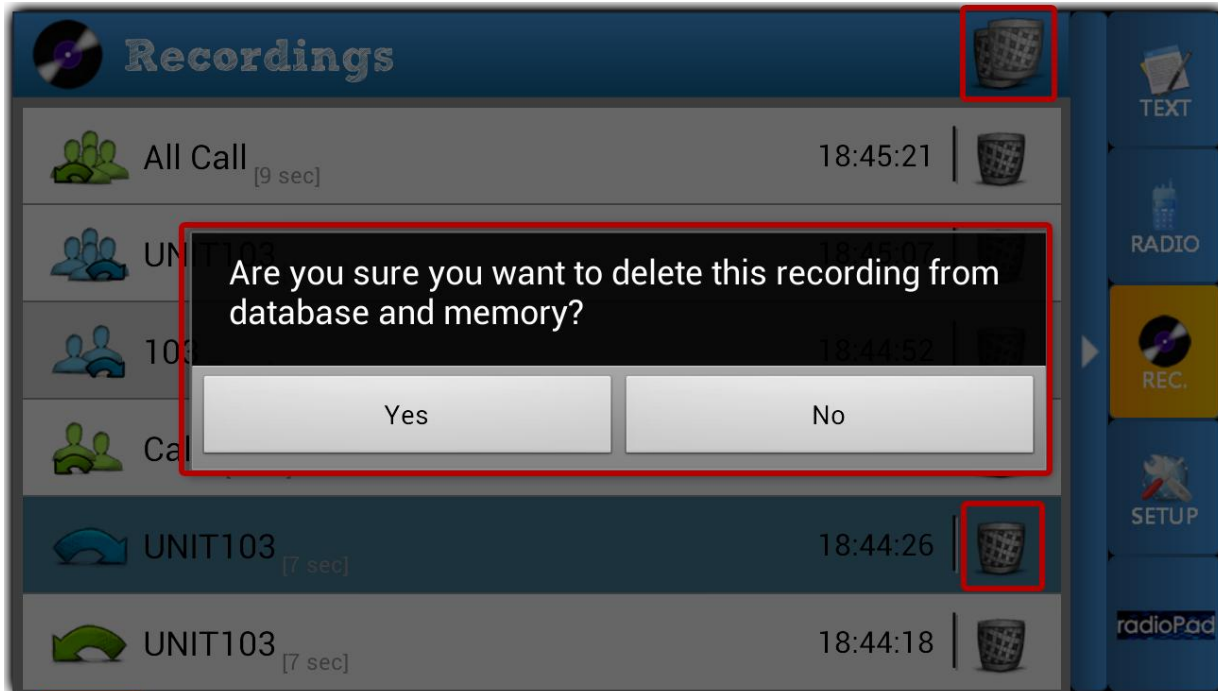


You can distinguish the call direction from the icon placed in the left of the row. The green icons with an arrow that exits from the Android device means that the call was made by you, and the blue icons with the arrow entering to the device means a received call.



Using the same icons you can find the call type. All Call has an icon representing four peoples, group call will display two people and will provide the initiator of the group call, and finally, the private call displays only an arrow for the direction of the call and the name of the source/destination [depending of the call direction].

10. Deleting a recording - If you want to delete the recording/ recordings, you can click the recycle bins icon in the top right to delete all the recordings (after confirming this operation), or click the recycle bin on the desired row.



11. ManDown & Motionless - RadioPad has the build in functionalities as a Subscriber Station does. ManDown Function sends an alarm when the Android Device is dropped and the user doesn't confirm that is ok. Motionless is build to send a similar alarm, but only if the device isn't moved for a preset period of time.

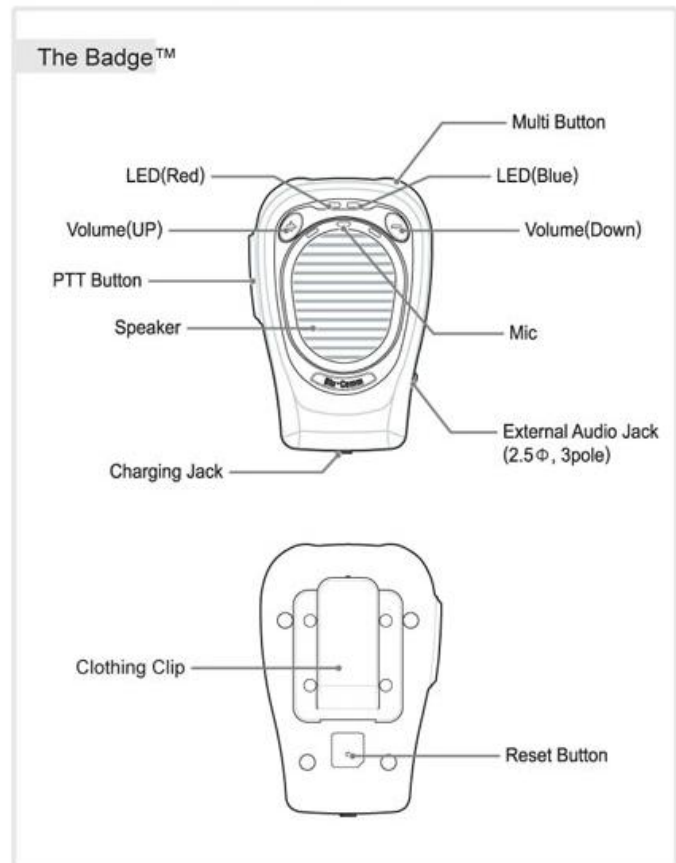


12. RadioPad Settings - RadioPad provides many configuration options that allows enabling/disabling functionalities [ManDown, Motionless, Recordings], selecting Language, Audio Parameters, downloading new Configuration file [this is done by changing the name in Config file Name with the one received after uploading the codeplug at the address <http://app2.safemobile.com:9100/uploadCodeplug>].

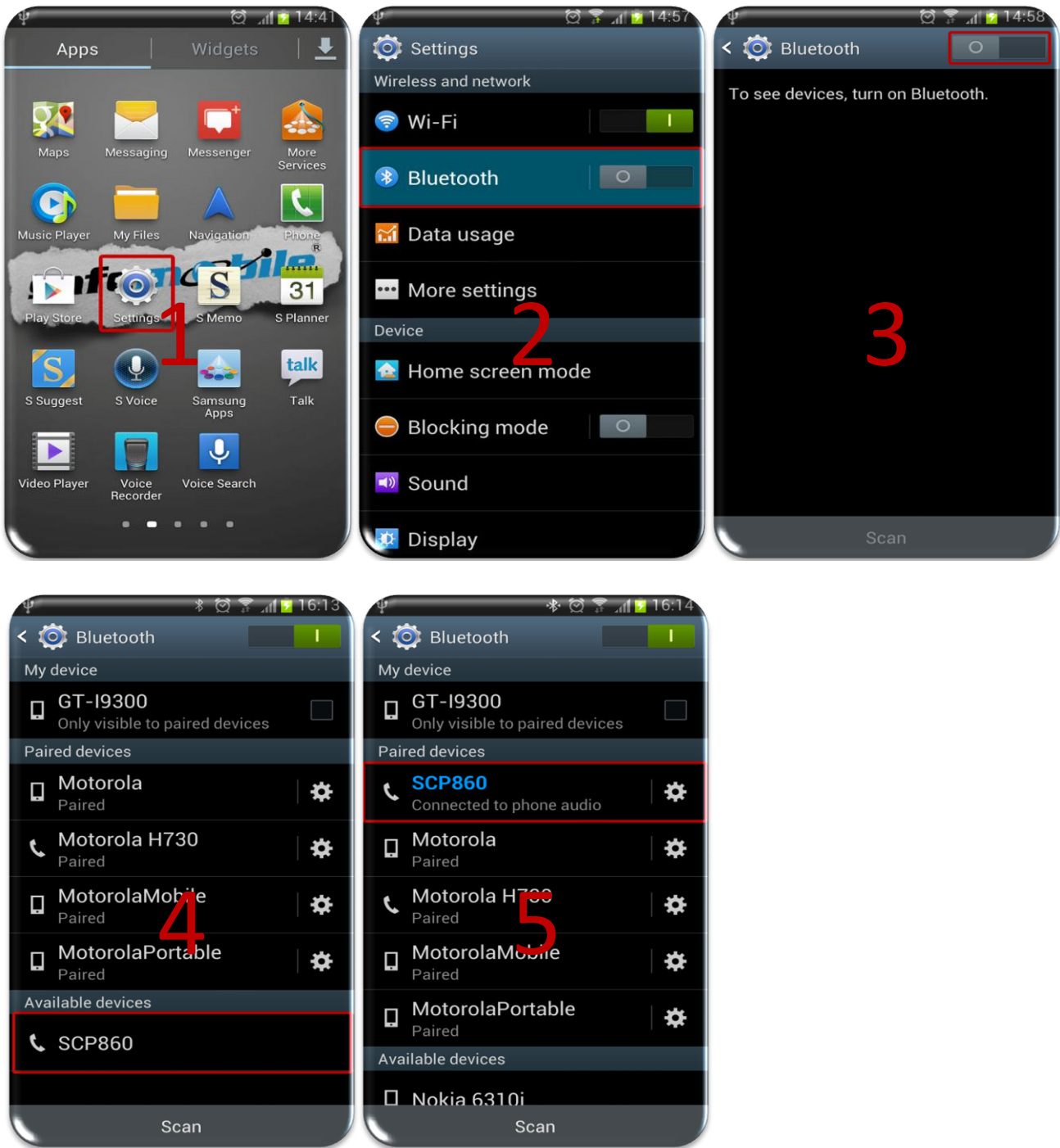
RadioPad™ and BluComm Mic

BluComm is an external microphone that connects to the RadioPad using a bluetooth connection and tethers all the sound to itself.

In order to use BluComm with RadioPad, you need to pair it with the Android device. To do this, with the mic turned off, you have to hold '**Multi Button**' pressed for around 4-5 seconds until the BluComm starts and another 2-3 seconds until the blue LED start flashing that signals '**pairing mode**' (after the mic start don't release the 'Multi Button', this will be released only after the led flashes).



1. Connecting BluComm - With the microphone in '**pairing mode**', go to Settings in Android [1], the select Bluetooth [2] and activate it from the switch in the top right [3]. In the available devices you should see 'SCP860' on which you will click[4]. Depending on Android version, you can be asked to enter a pin number to pair the device. Enter 0000. Now you are connected and in the '**Paired devices**' list you will see 'SCP860' with the message '**Connected**' [5]




2. Selecting BluComm in RadioPad - Open RadioPad and go to '**Setup**' tab. Here you will scroll to 'Tether sound' and check it. This will tether(redirect) all recording and playback to the BluComm microphone, but only after saving the modifications and restarting RadioPad.



3. Using BluComm - Having the 'Tether sound' option selected and BluComm connected, when opening RadioPad you should hear all the Android sounds through the BluComm Speaker and any incoming call. To make a call from BluComm, you will have to hold the PTT button pressed. This will initiate the call and send voice. When you release the PTT button, the call will be terminated.

What-a-Pair System

What-a-Pair...

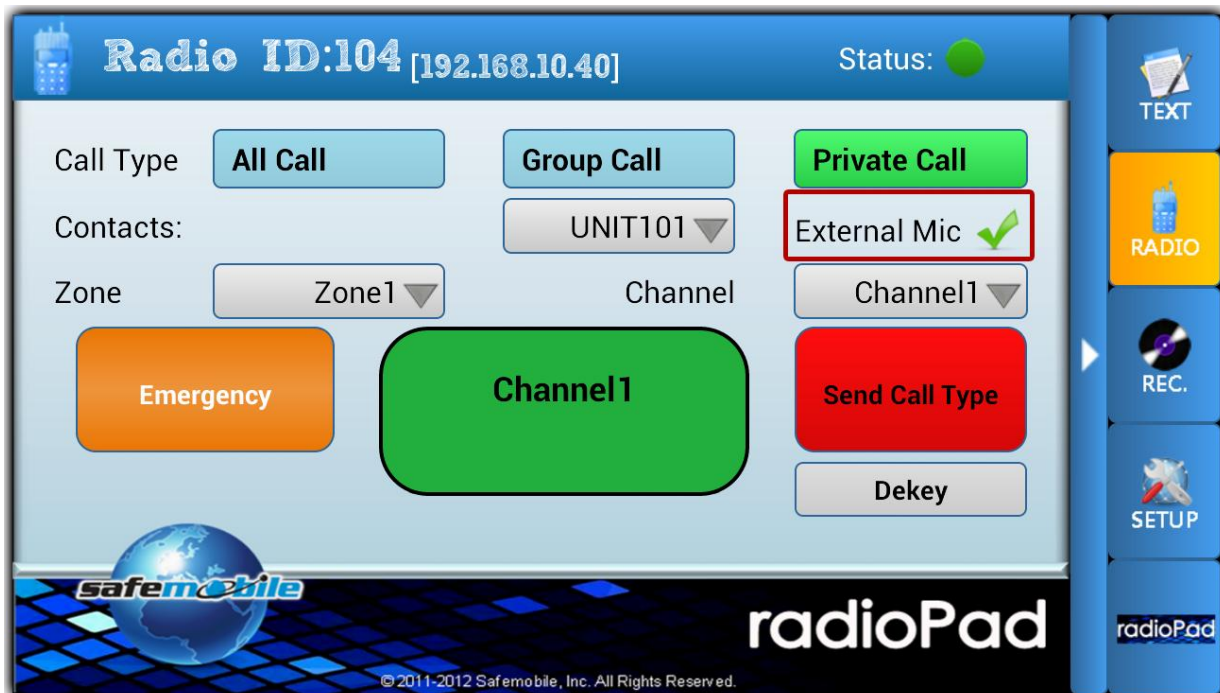
 What-a-Pair System requires a specific SafeBridge that connects to the X10DR Microphone.

1. Connecting the What-a-Pair SafeBridge - The procedure is similar with the one explained in the 'Working with RadioPad' chapter, with the mention that the serial cable must be connected to the X10DR microphone.



2. **Connecting to What-a-Pair SafeBridge** - Please see 'Working with RadioPad' chapter where is described the process of connecting to the Wi-Fi of one SafeBridge.

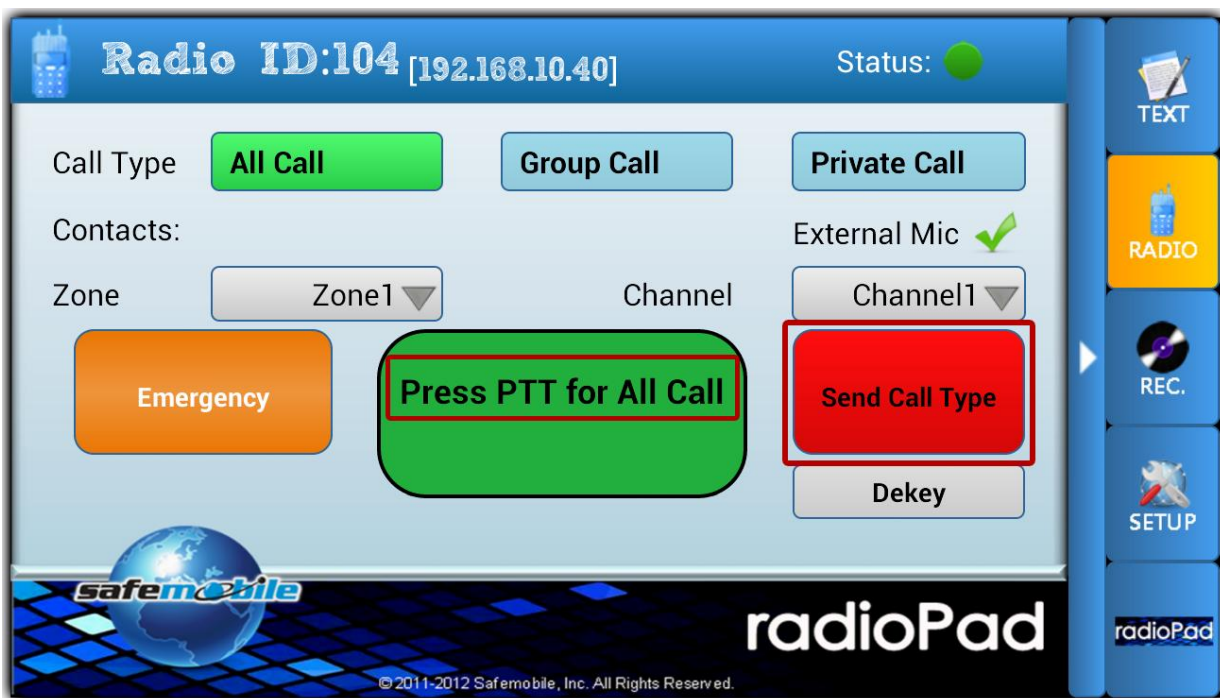
3. **Changes in RadioPad** - In order to use the What-a-Pair system in RadioPad, you will need to check '**External Mic**' in the **Radio** Tab



⚠ If you can't see the '**External Mic**' option, than you have to uncheck '**Tether Sound**' from Settings.

Once you have checked this option, you will see that the PTT button is now called 'Send Call Type'. This means that the X10DR will manage call start / end, and from Android Device you will select call parameters.

Once you have pressed 'Send Call Type', you will have 3 seconds to press PTT from X10DR microphone until the Base Station will reset the call type to the default one [this is set in CPS].



⚠ All Sound will be managed by the X10DR microphone. You will not here anything on the Android Device and the recordings will appear but with no data saved.