Roger Covert System

Technical Note

Configuration for radios and PTT-apps

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2. Introduction

This document describes how to configure the Roger Covert System and radios or PTT-apps based on Android to work together.

To be compatible with the listed PTT-apps or radios, please make sure to have the latest version of the Security Configuration Application (SCA) installed on your computer and have proceeded with the update of your Roger Covert C firmware.

3. Important notice after firmware update

After a firmware update of the Roger Covert C to release 1.3.44126, the configuration of your device is restored except the Bluetooth custom command which is reset.
So after having updated your device, go in the configuration tab to select the required Bluetooth custom command and write in the unit.

4. Important notice for pairing process

During the pairing process, in some cases the radio or mobile phone is not able to read the Bluetooth name of the Roger Covert C and display only its Bluetooth MAC address. In this case, choose the device with the MAC address starting with 00:0F:59 corresponding in all cases to a Roger Covert unit.

5. Important notice for PTT-apps

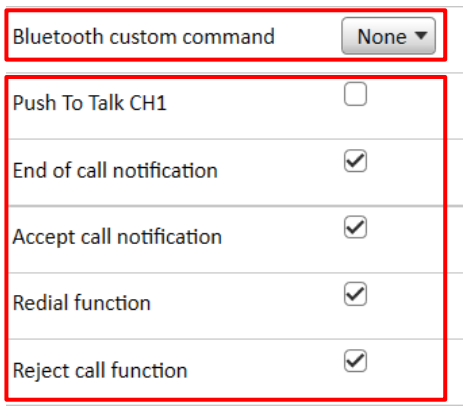
The simultaneous usage of phone calls and PTT-Apps is not recommended due to possible audio routing mismatch and undesired triggering of PTT-App when triggering phone functionalities (picking call, ending call, redial...) with Roger remote control.

When a PTT-app is in use, it's recommended to disable the redial function of the Roger Covert unit to avoid unexpected behaviors at APPs level.

It's recommended to put your smartphone on vibrator mode to avoid to have any sound emitted by the speaker of the smartphone.

Since Android 12, the "Nearby devices" permission is mandatory to have audio and PTT working properly with a Bluetooth device.
To configure this permission, go into the "App info" from the main settings menu of Android, search your PTT-App and enable "Nearby devices" in the permission section.

The Roger Covert C can't trigger the PTT command on Iphone devices, as they are using Bluetooth low energy for this purpose.
A workaround is to use the Roger Covert C only for audio and a third party PTT like the PTT Smart button from Aina Wireless.
(https://www.ainaptt.com/ptt-smart-button/)
Configure your Roger Covert System as below:



6. Important notice for radio

To use the Roger Covert unit together with radio through Bluetooth, licenses may be required, please get in touch with your local radio representative if any is missing:

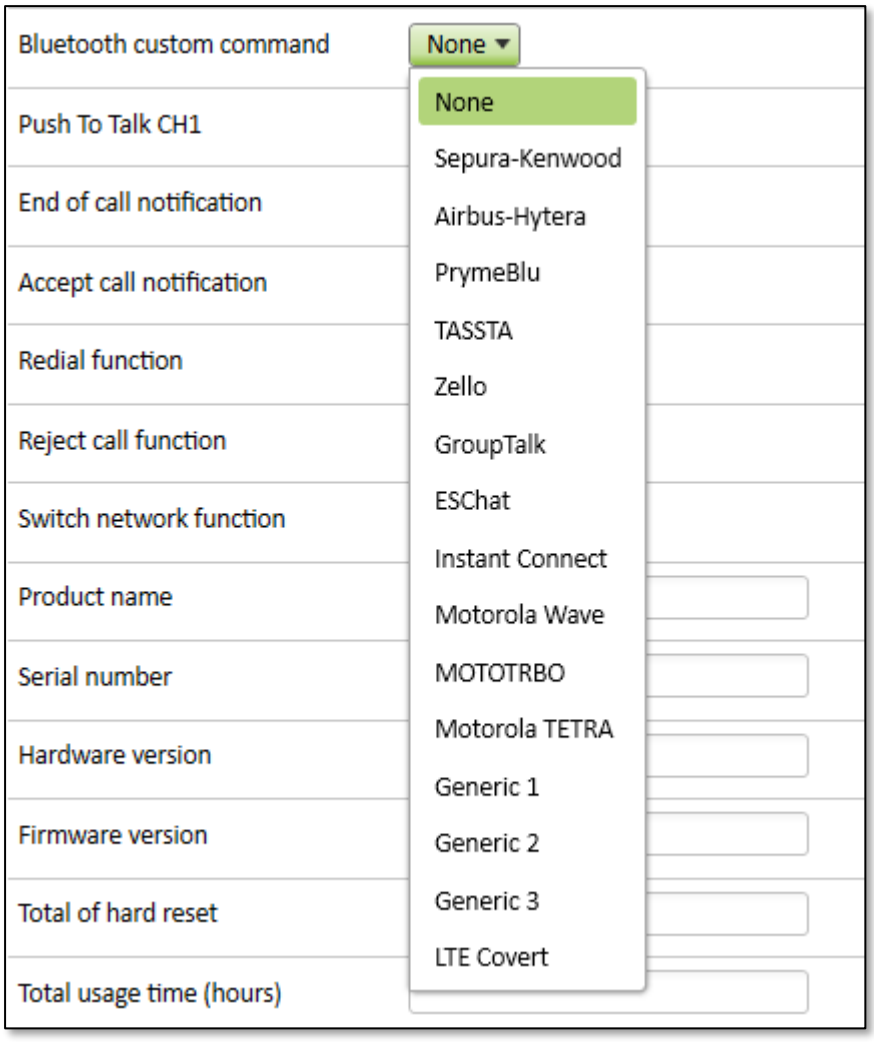
- For usage with Motorola Tetra radio, the following Motorola licenses need to be activated on each radio:
  - BT Connectivity
  - BT Control
  - BT Audio & Object Push 626
  - ST Series Covert Solution (for Covert Mode on ST series radios)

- For usage with Motorola MOTOTRBO radio **DP3441e / DP3661e / DP4x01e**, the Motorola license "**HKVN4465A Mototrbo Bt Accessory Commands Radio**" need to be activated on each radio.

7. Roger Covert unit configuration for PTT-apps

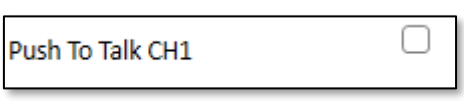
To set a Roger Covert unit (all variants) to work with an application, the following parameters need to be configured:

1. Bluetooth custom command
   Select the APP you will use in the drop down list to set the dedicated “Bluetooth PTT command”.

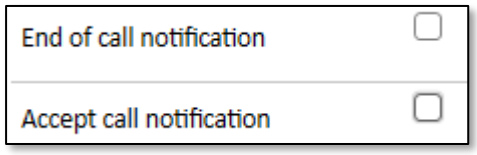


2. Bluetooth Device Name
   When an APP is selected, a prefix is automatically added to the “Bluetooth Device Name”. This prefix is mandatory to ensure the recognition of the Roger Covert unit by the APP. In consequence, only the last 9 characters of the Bluetooth Device Name can be customized.

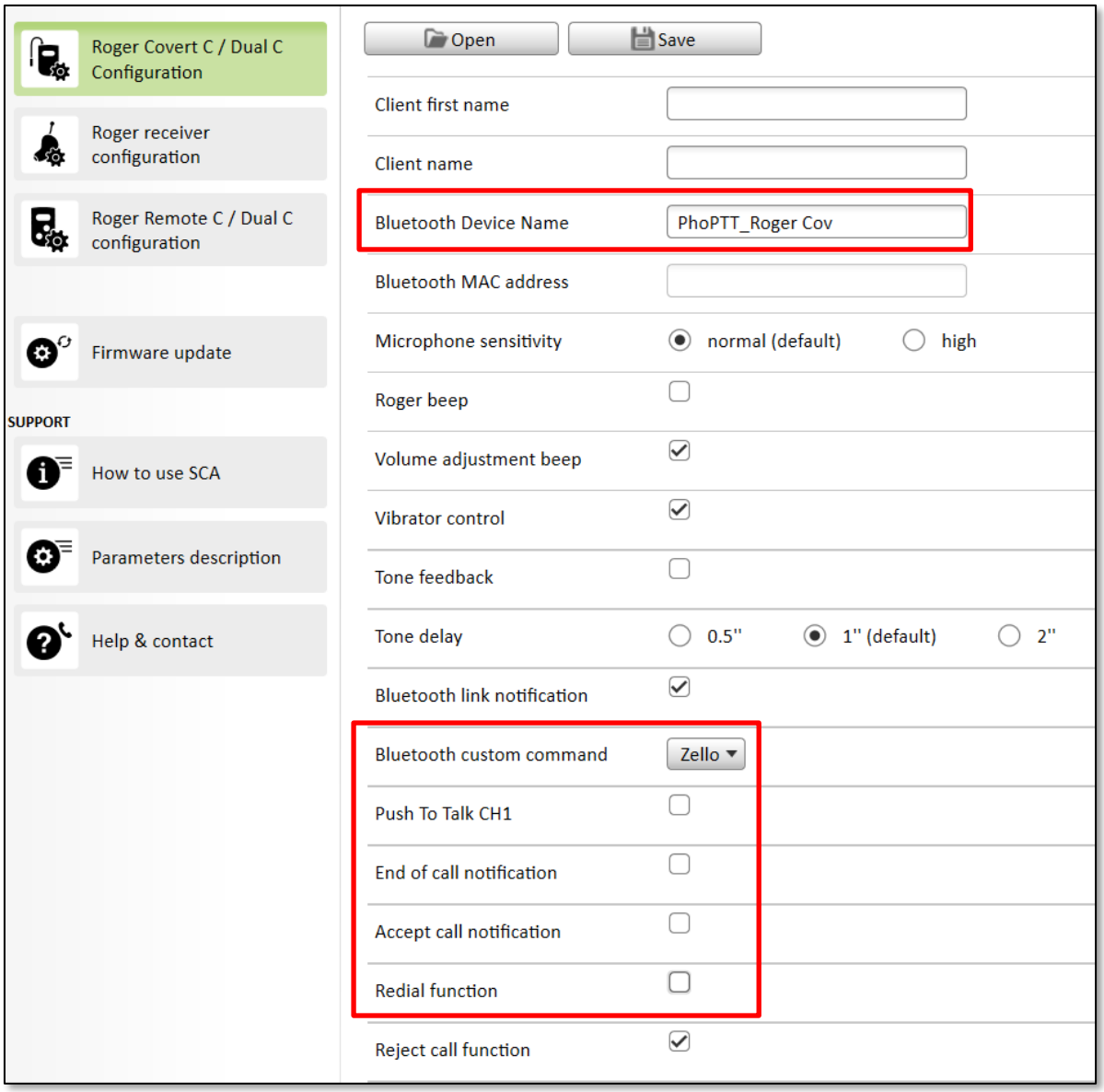
3. “Push To Talk CH1” shall be unchecked to avoid interaction with APP in case of phone call



4. Call notification shall be unchecked to avoid misleading notification due to incorrect notification from APP



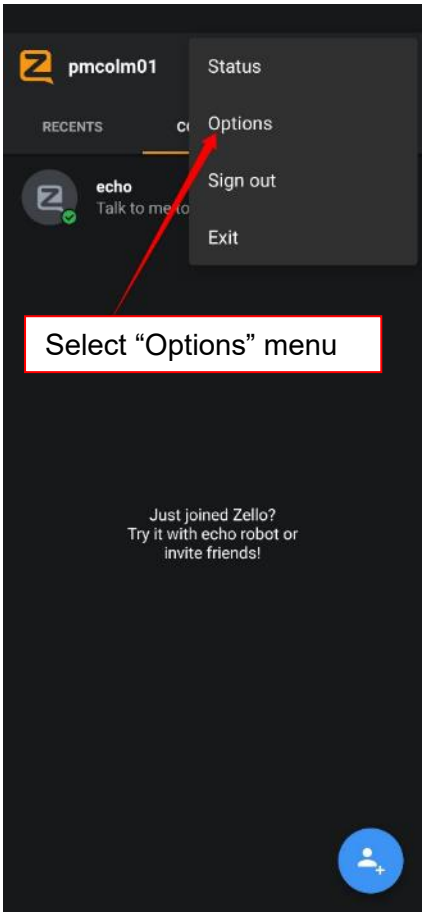
5. Summary of recommended settings

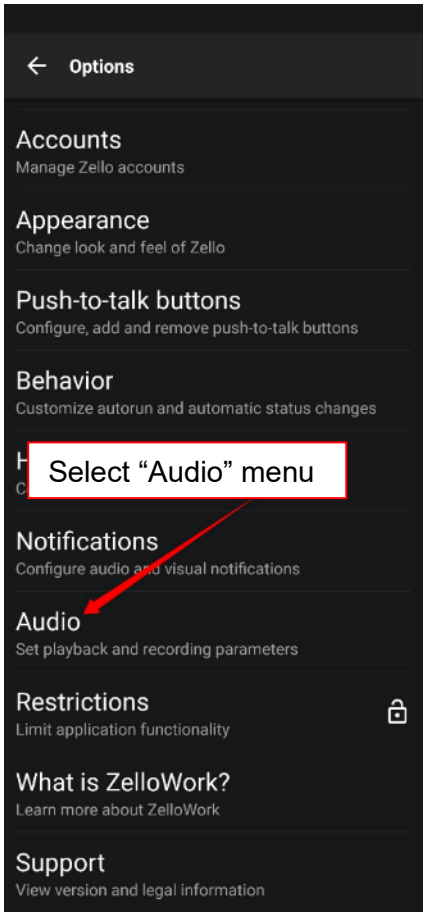


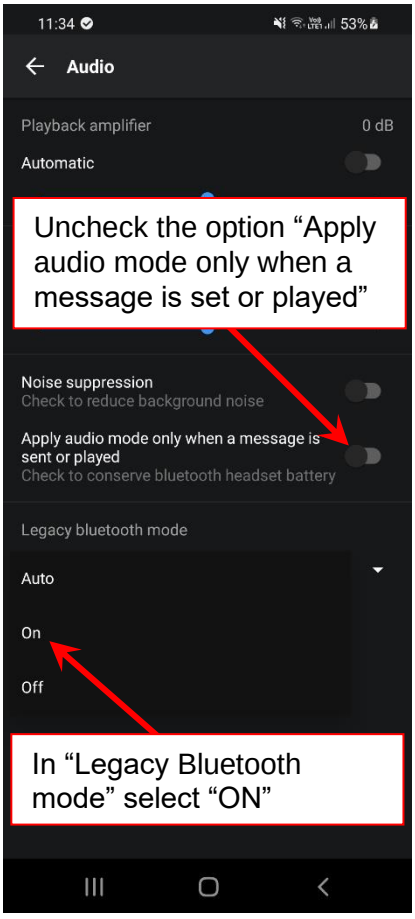
6. If the Roger Covert unit was previously connected to a mobile phone, as the “Bluetooth Device Name” has changed, a new pairing must be done with the mobile phone.

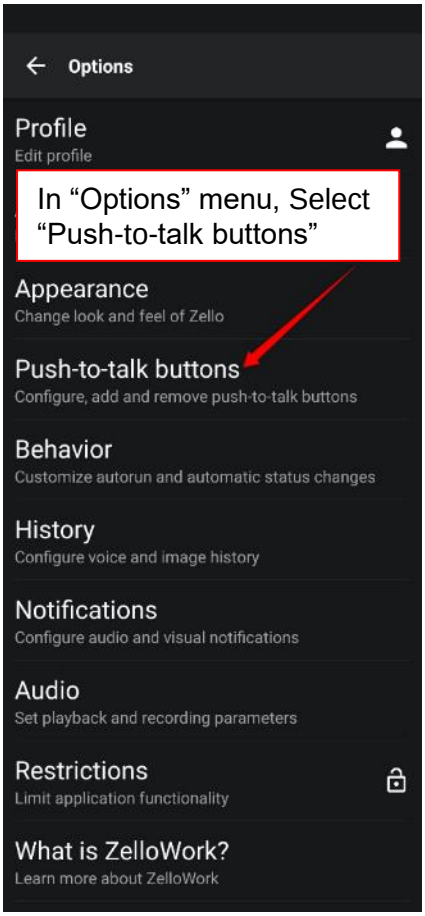
8. PTT-apps settings

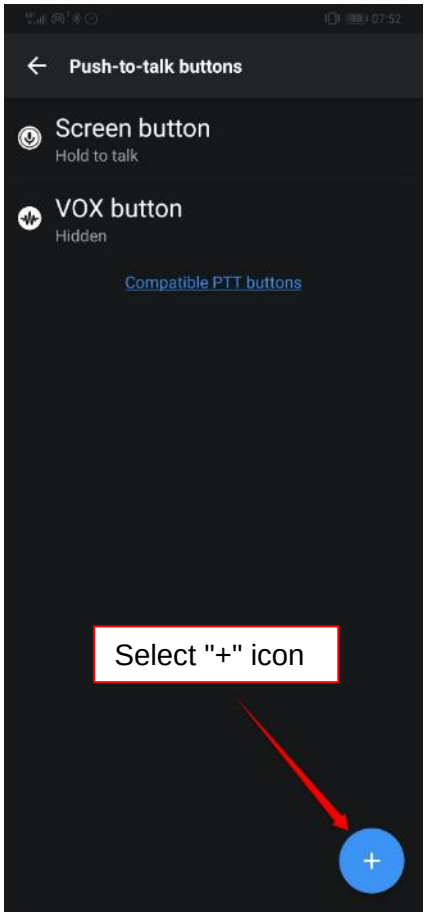
8.1. Zello

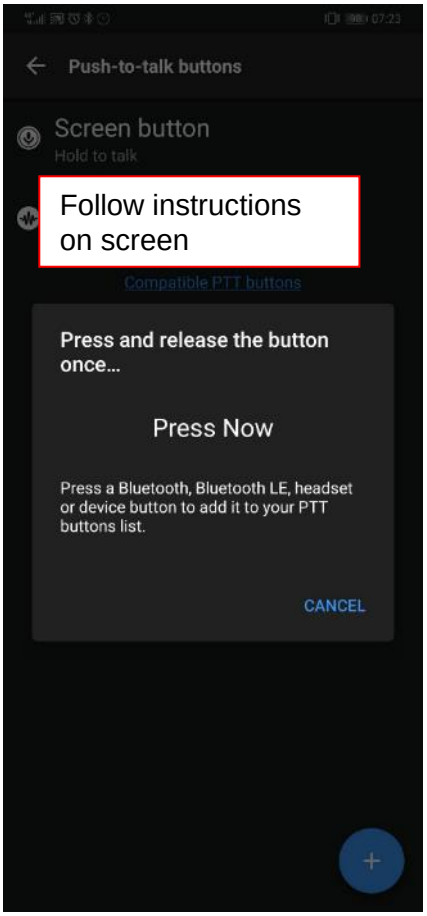


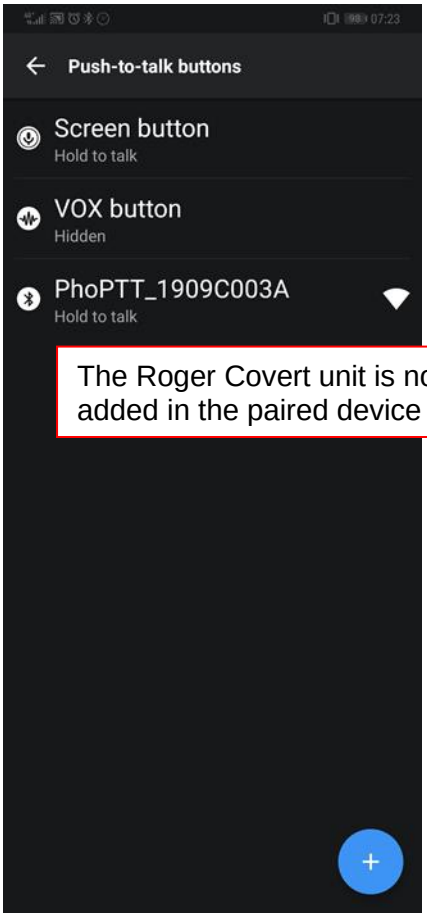




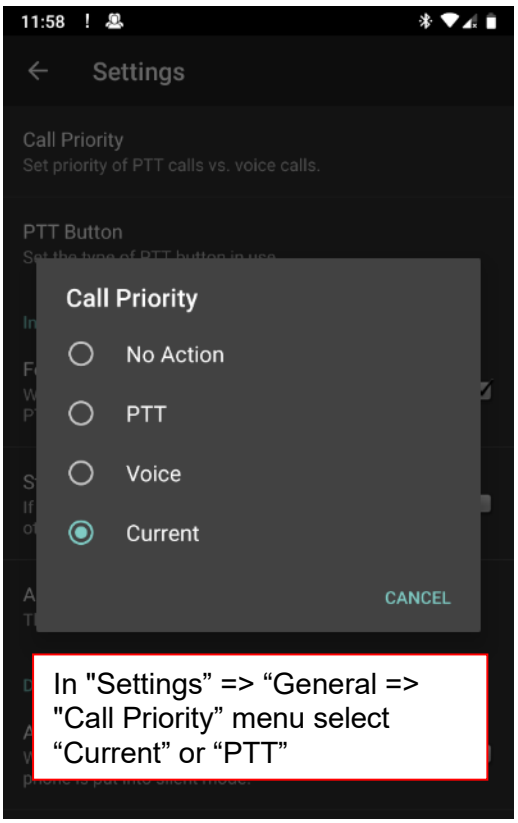

Options
Profile
Edit profile
In “Options” menu, Select “Push-to-talk buttons”
Appearance
Change look and feel of Zello
Push-to-talk buttons
Configure, add and remove push-to-talk buttons
Behavior
Customize autorun and automatic status changes
History
Configure voice and image history
Notifications
Configure audio and visual notifications
Audio
Set playback and recording parameters
Restrictions
Limit application functionality
What is ZelloWork?
Learn more about ZelloWork

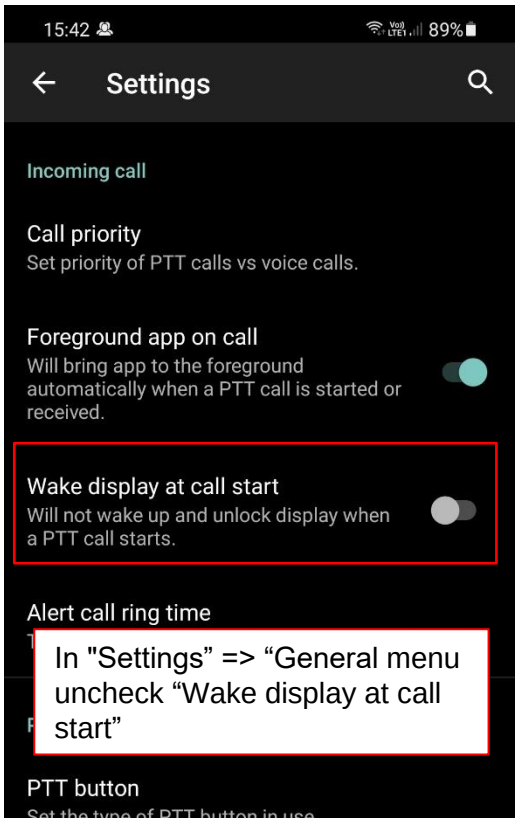

Push-to-talk buttons
Screen button
Hold to talk
VOX button
Hidden
Compatible PTT buttons
Select "+" icon

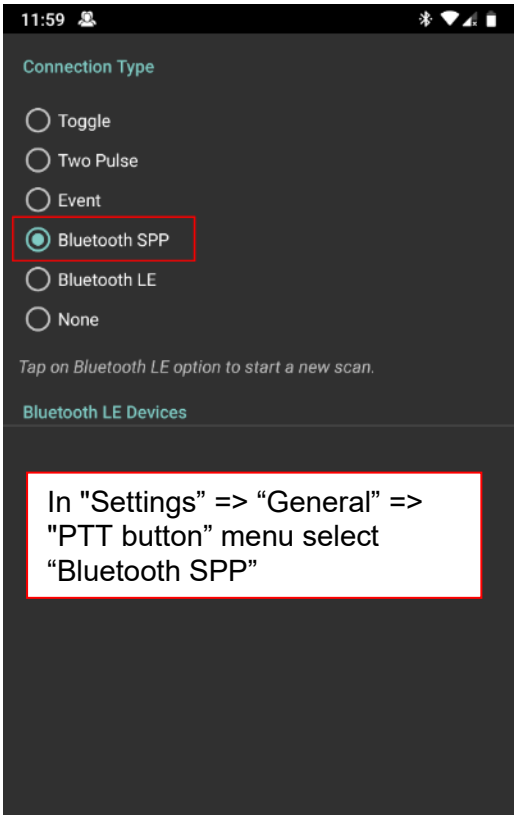

Push-to-talk buttons
Screen button
Hold to talk
Follow instructions on screen
Compatible PTT buttons
Press and release the button once...
Press Now
Press a Bluetooth, Bluetooth LE, headset or device button to add it to your PTT buttons list.
CANCEL

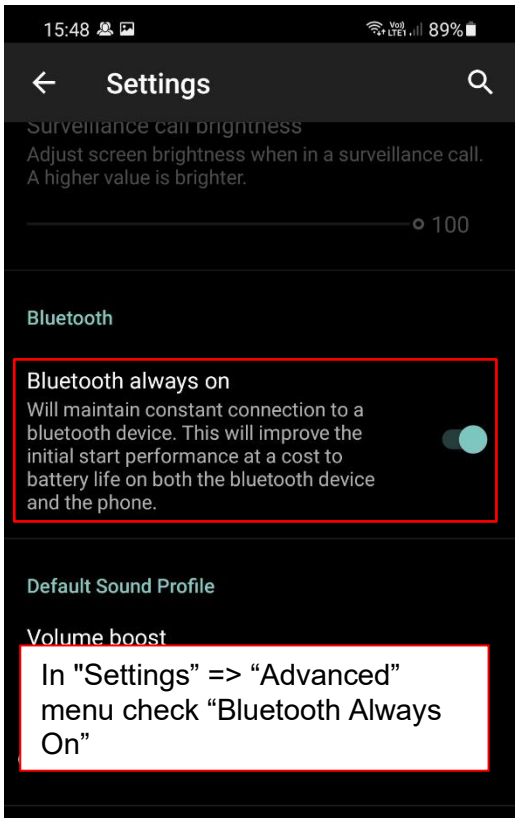

Push-to-talk buttons
Screen button
Hold to talk
VOX button
Hidden
PhoPTT_1909C003A
Hold to talk
The Roger Covert unit is now added in the paired device list

8.2. ESChat

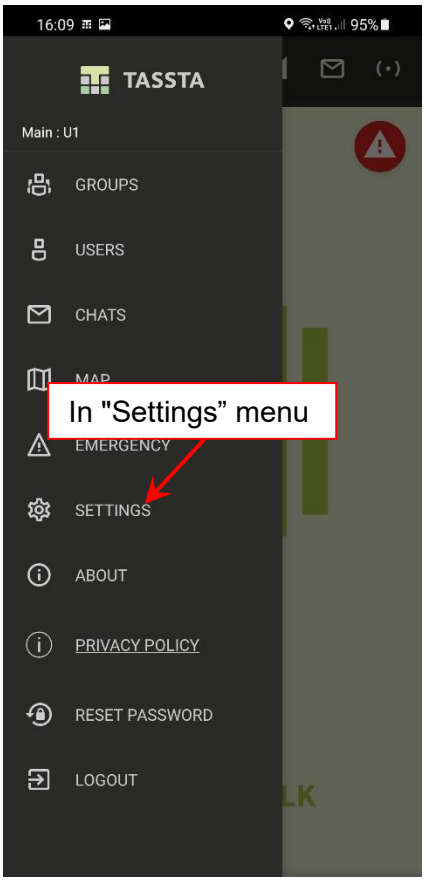

11:58
Settings
Call Priority
Set priority of PTT calls vs. voice calls.
PTT Button
Call Priority
No Action
PTT
Voice
Current
CANCEL
In "Settings" => “General => "Call Priority” menu select “Current” or “PTT”

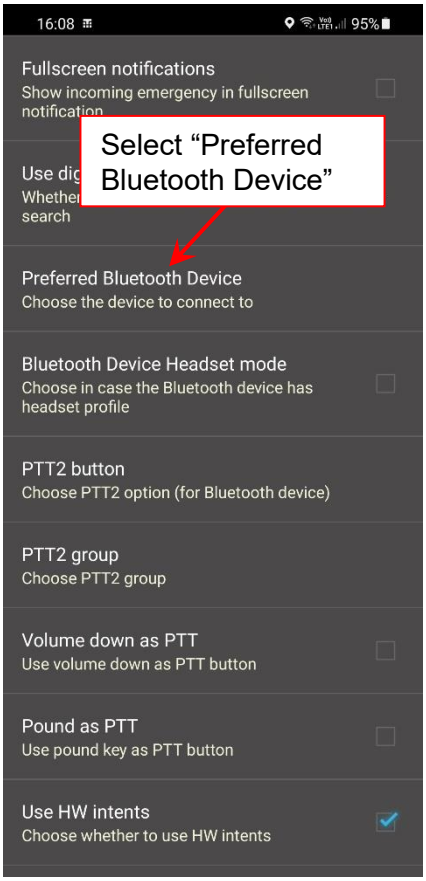

15:42
89%
Settings
Incoming call
Call priority
Set priority of PTT calls vs voice calls.
Foreground app on call
Will bring app to the foreground automatically when a PTT call is started or received.
Wake display at call start
Will not wake up and unlock display when a PTT call starts.
Alert call ring time
In "Settings" => “General menu uncheck “Wake display at call start”
PTT button

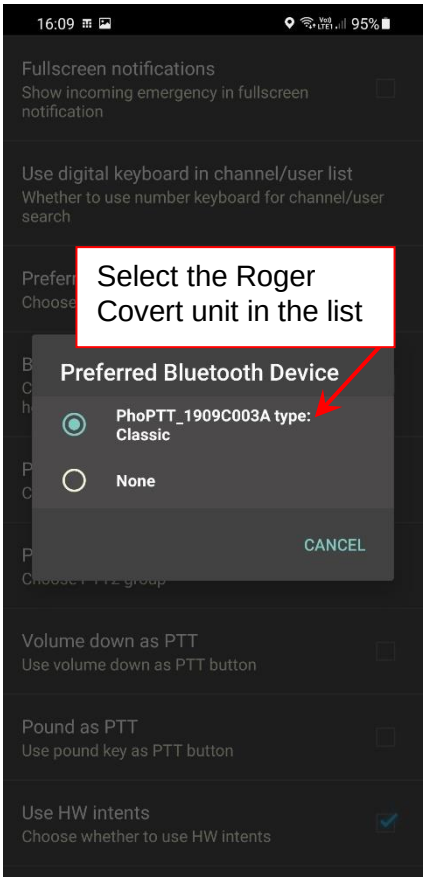

11:59
Connection Type
Toggle
Two Pulse
Event
Bluetooth SPP
Bluetooth LE
None
Tap on Bluetooth LE option to start a new scan.
Bluetooth LE Devices
In "Settings” => “General” => "PTT button” menu select “Bluetooth SPP”

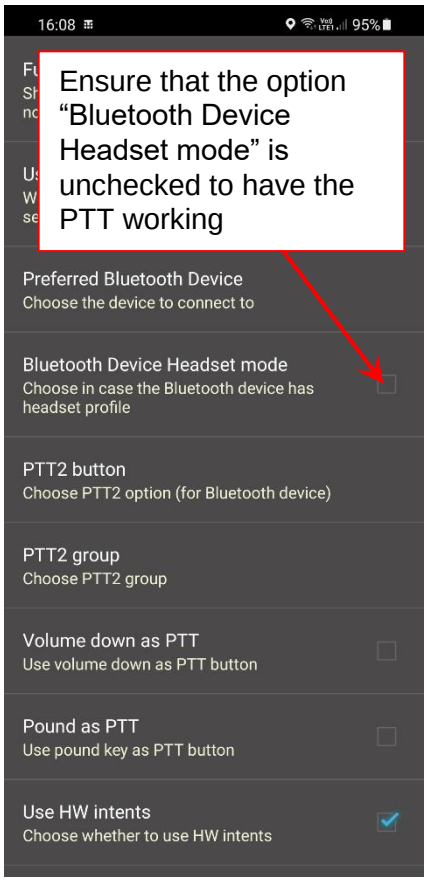

15:48
89%
Settings
Surveillance call brightness
Adjust screen brightness when in a surveillance call. A higher value is brighter.
100
Bluetooth
Bluetooth always on
Will maintain constant connection to a bluetooth device. This will improve the initial start performance at a cost to battery life on both the bluetooth device and the phone.
Default Sound Profile
Volume boost
In "Settings” => “Advanced” menu check “Bluetooth Always On”

8.3. TASSTA

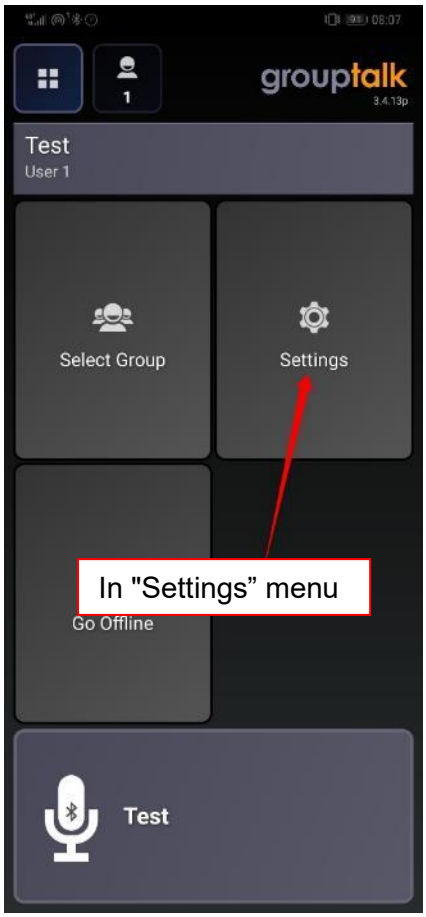

16:09
95%
TASSTA
Main : U1
GROUPS
USERS
CHATS
MAP
EMERGENCY
SETTINGS
ABOUT
PRIVACY POLICY
RESET PASSWORD
LOGOUT
In "Settings" menu

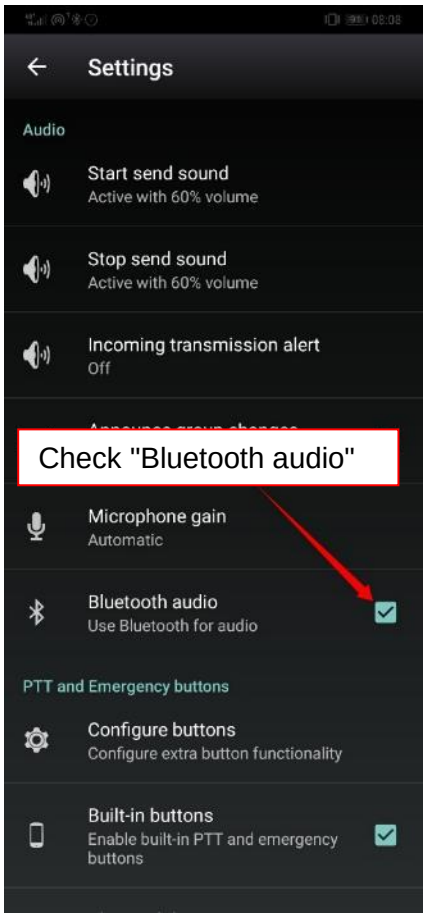

16:08
95%
Fullscreen notifications
Show incoming emergency in fullscreen notification
Select “Preferred Bluetooth Device”
Preferred Bluetooth Device
Choose the device to connect to
Bluetooth Device Headset mode
Choose in case the Bluetooth device has headset profile
PTT2 button
Choose PTT2 option (for Bluetooth device)
PTT2 group
Choose PTT2 group
Volume down as PTT
Use volume down as PTT button
Pound as PTT
Use pound key as PTT button
Use HW intents
Choose whether to use HW intents

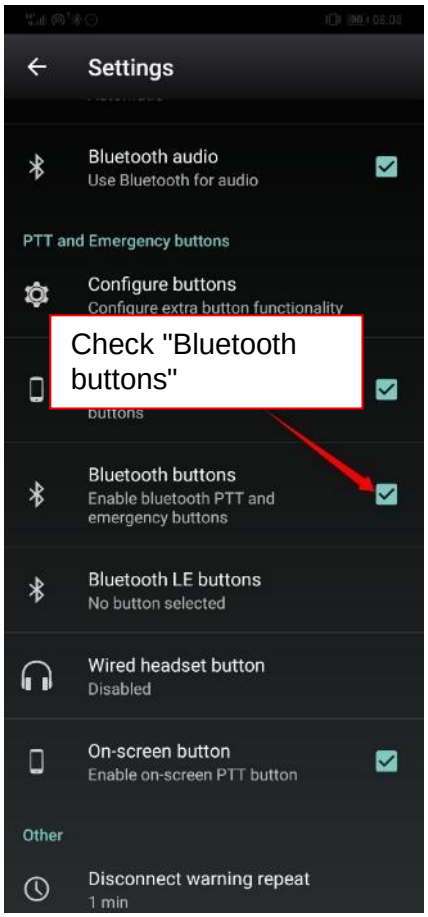

16:09
95%
Fullscreen notifications
Show incoming emergency in fullscreen notification
Use digital keyboard in channel/user list
Whether to use number keyboard for channel/user search
Select the Roger Covert unit in the list
Preferred Bluetooth Device
PhoPTT_1909C003A type: Classic
None
CANCEL
Volume down as PTT
Use volume down as PTT button
Pound as PTT
Use pound key as PTT button
Use HW intents
Choose whether to use HW intents

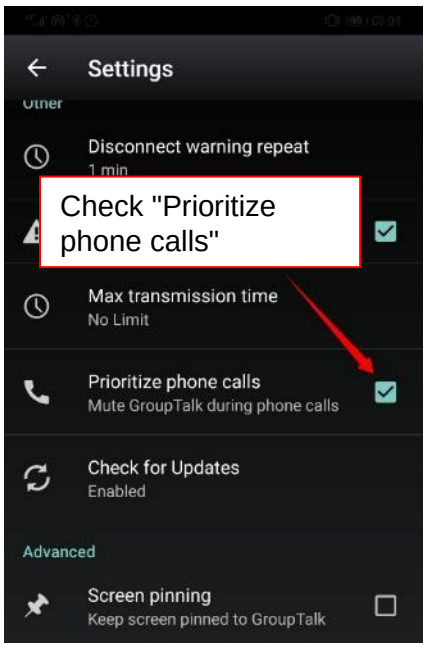

16:08
95%
Ensure that the option “Bluetooth Device Headset mode” is unchecked to have the PTT working
Preferred Bluetooth Device
Choose the device to connect to
Bluetooth Device Headset mode
Choose in case the Bluetooth device has headset profile
PTT2 button
Choose PTT2 option (for Bluetooth device)
PTT2 group
Choose PTT2 group
Volume down as PTT
Use volume down as PTT button
Pound as PTT
Use pound key as PTT button
Use HW intents
Choose whether to use HW intents

8.4. GroupTalk



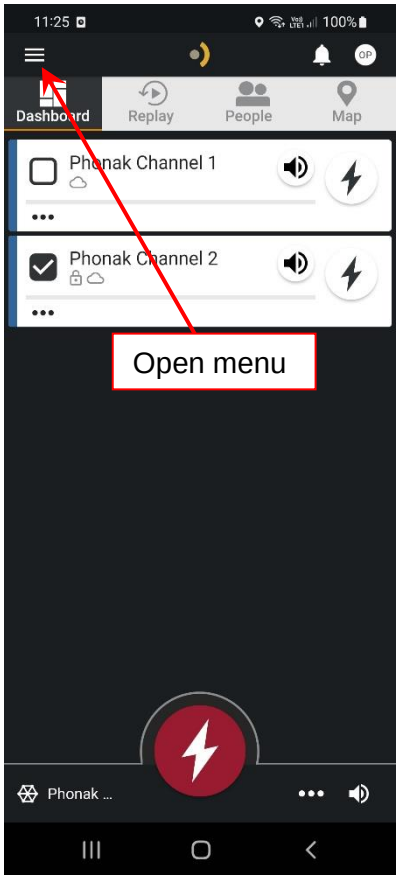


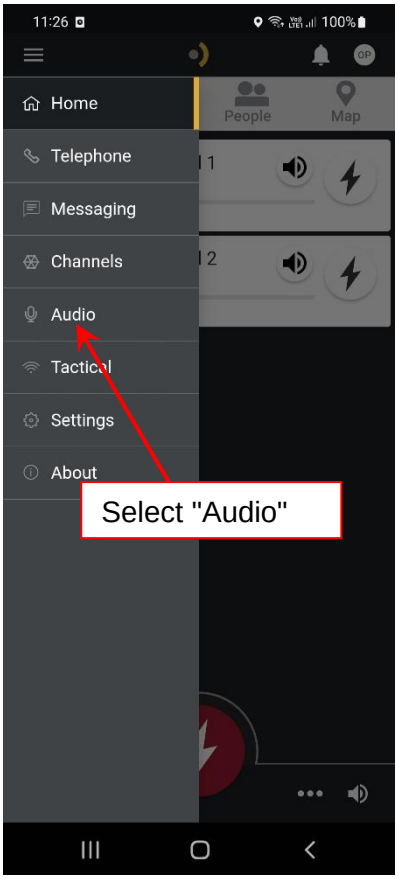


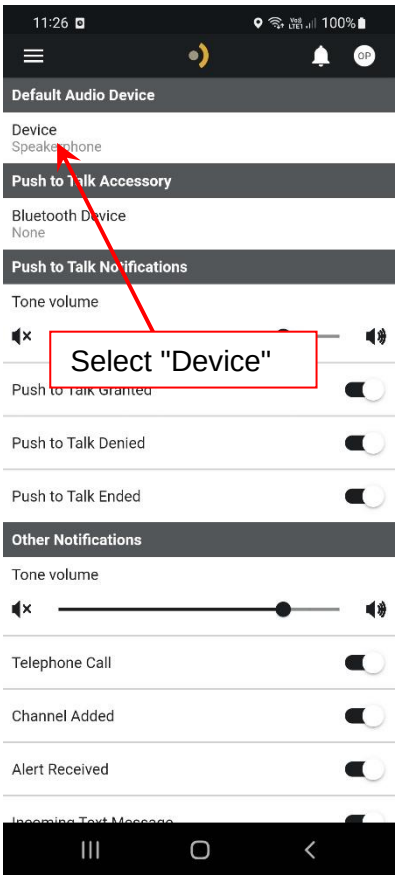


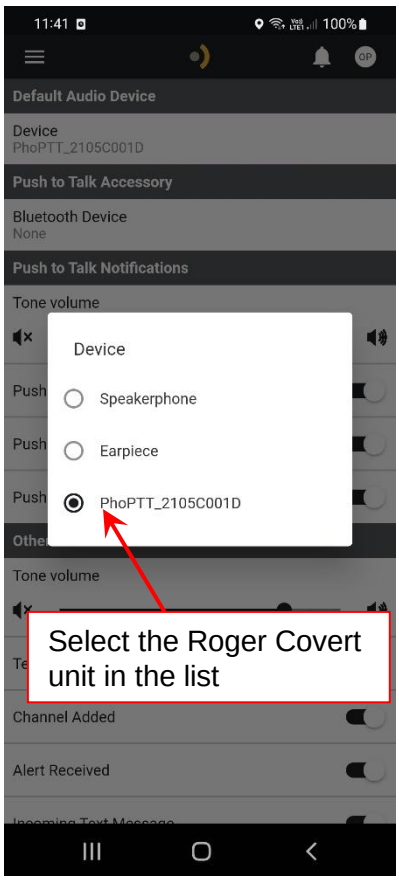
8.5. Instant Connect Enterprise

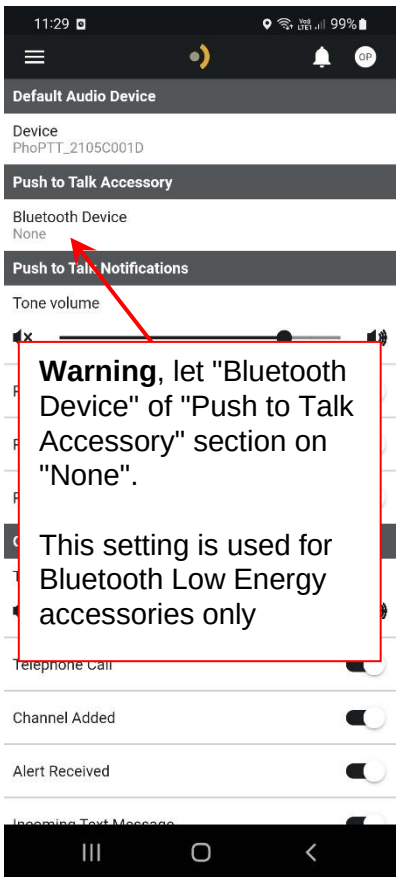
Compatible with Instant Connect Enterprise version 3.2.1 and above.



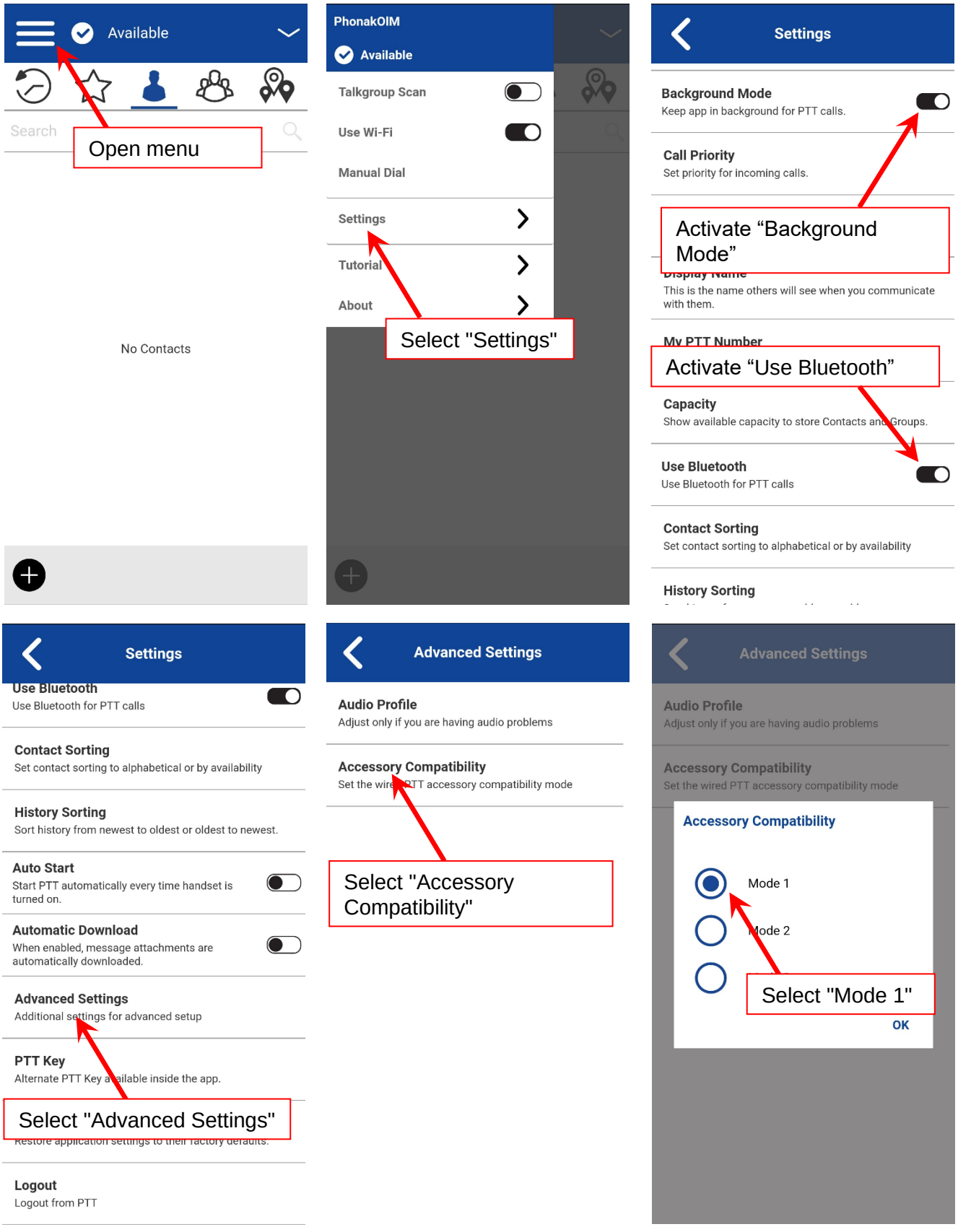








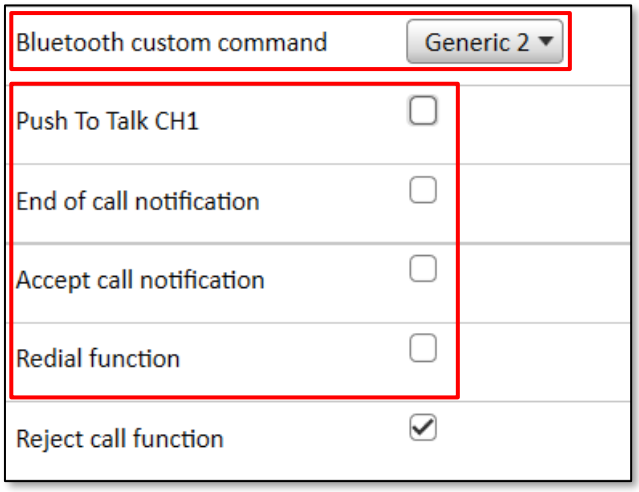
8.6. Motorola Wave



8.7. Motorola WAVE Push-to-Talk (PTT) (5.12+) - WAVE Mobile Communicator

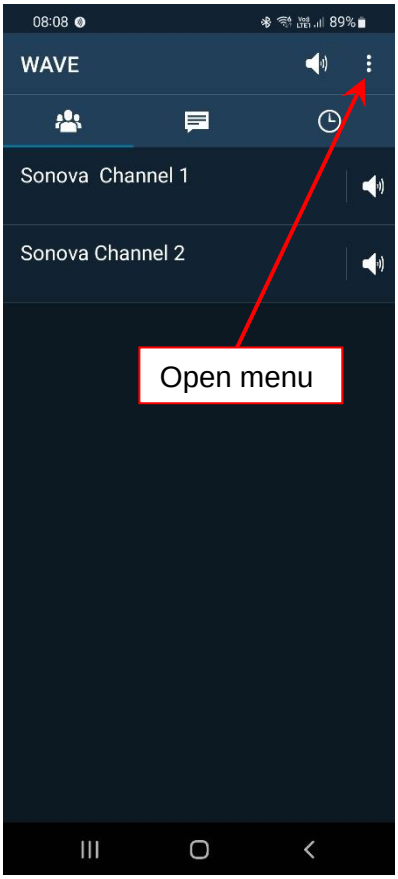
Note: Since Android 12, the Roger Covert System is only compatible with the version 4.1.12 and above of the Walkie Talkie Motorola WAVE Push-to-Talk (PTT) (5.12+) - WAVE Mobile Communicator.

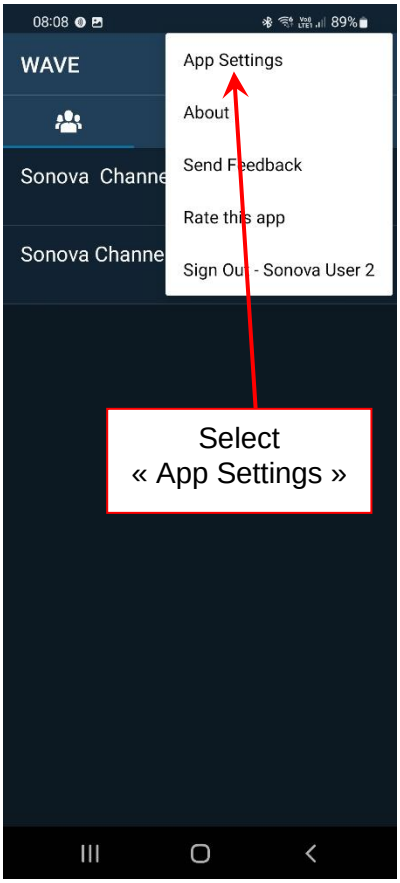
1. Bluetooth custom command
   On the “Bluetooth custom command” section of SCA, select “Generic 2” and configure the phone features as below:

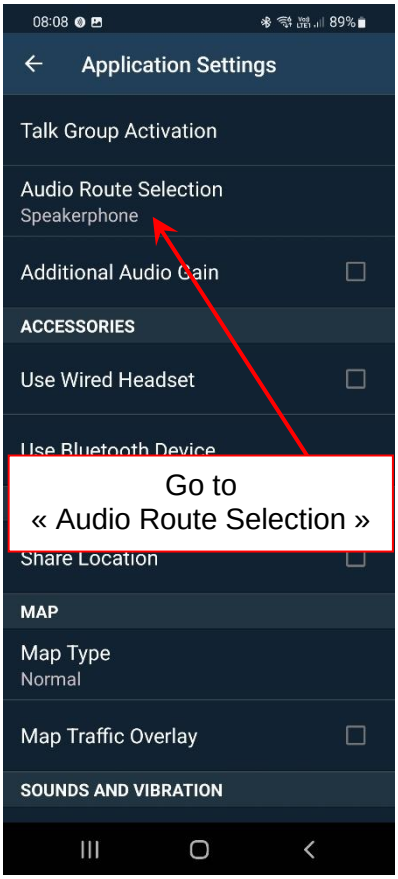


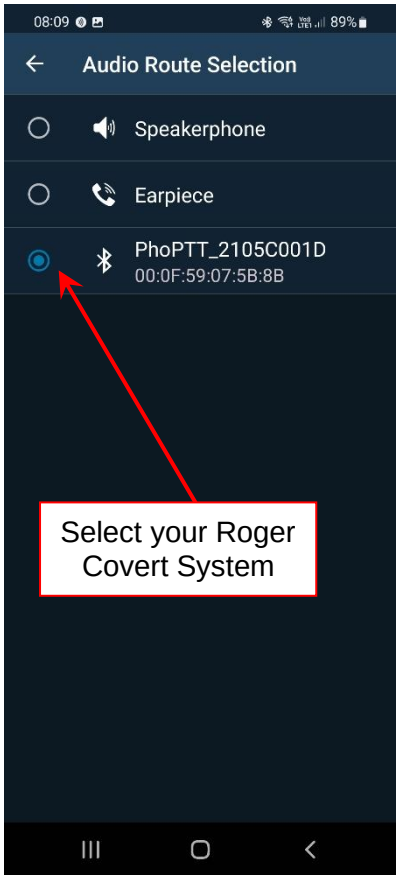
2. Bluetooth Device Name
   Edit the Bluetooth Device Name to add the prefix “PhoPTT_”. This prefix is mandatory to ensure the recognition of the Roger Covert unit by the APP. In consequence, only the last 9 characters of the Bluetooth Device Name can be customized.

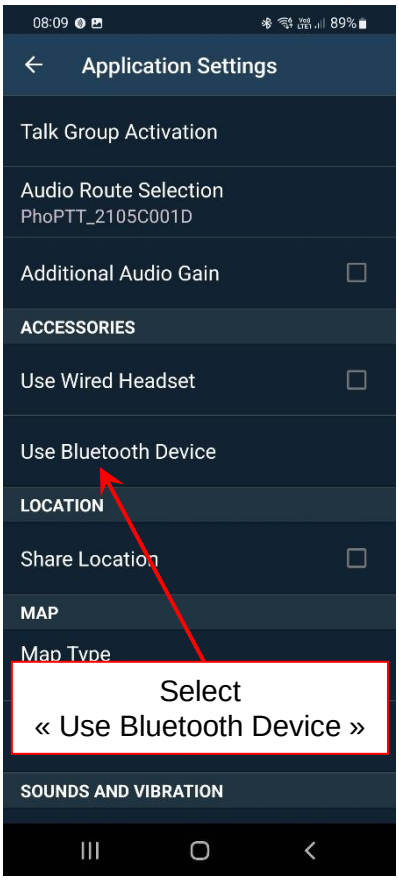
3. Pair the Roger Covert System to the smartphone and configure Bluetooth accessory in Wave application as described on the next pages.

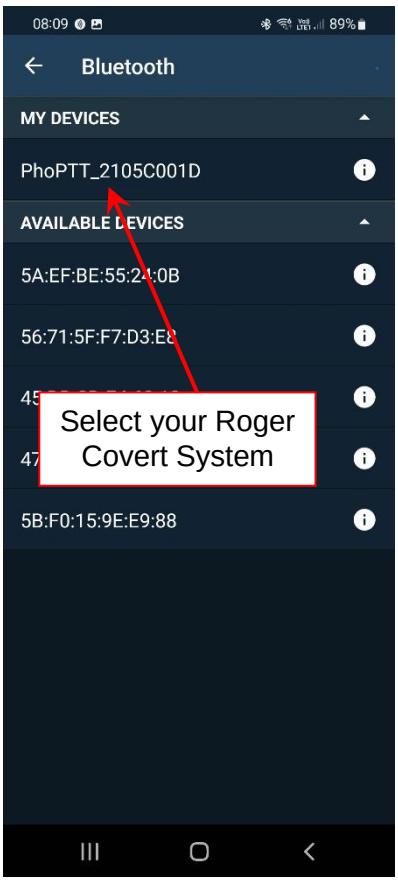

WAVE
Sonova Channel 1
Sonova Channel 2
Open menu

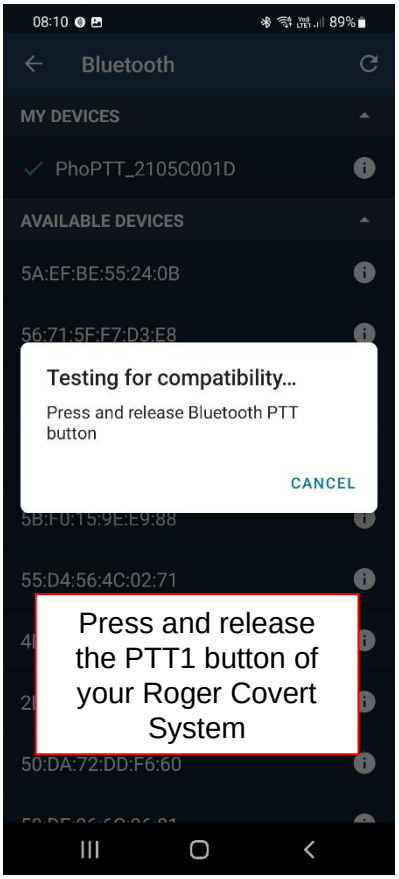

WAVE
App Settings
About
Send Feedback
Rate this app
Sign Out - Sonova User 2
Select
« App Settings »

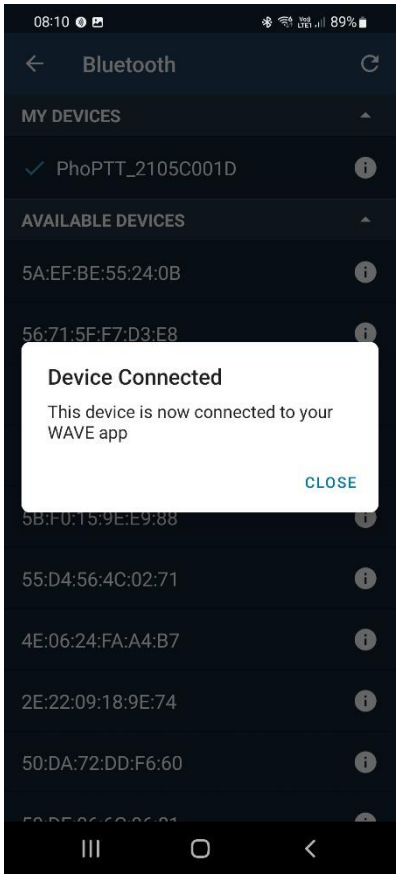

Application Settings
Talk Group Activation
Audio Route Selection
Speakerphone
Additional Audio Gain
ACCESSORIES
Use Wired Headset
MAP
Map Type
Normal
Map Traffic Overlay
SOUNDS AND VIBRATION
Go to
« Audio Route Selection »

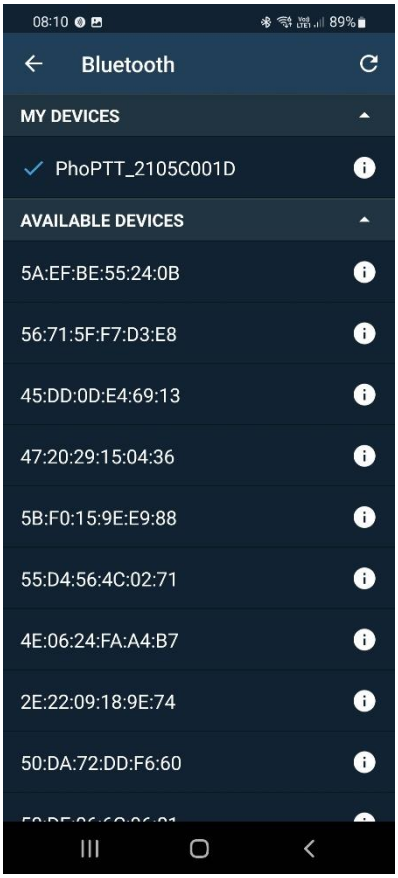

Audio Route Selection
Speakerphone
Earpiece
PhoPTT_2105C001D
00:0F:59:07:5B:8B
Select your Roger
Covert System


Application Settings
Talk Group Activation
Audio Route Selection
PhoPTT_2105C001D
Additional Audio Gain
ACCESSORIES
Use Wired Headset
Use Bluetooth Device
LOCATION
Share Location
MAP
Map Type
SOUNDS AND VIBRATION
Select
« Use Bluetooth Device »


Bluetooth
MY DEVICES
PhoPTT_2105C001D
AVAILABLE DEVICES
5B:F0:15:9E:E9:88
Select your Roger
Covert System


08:10
89%
Bluetooth
MY DEVICES
PhoPTT_2105C001D
AVAILABLE DEVICES
5A:EF:BE:55:24:0B
56:71:5F:F7:D3:E8
Testing for compatibility...
Press and release Bluetooth PTT button
CANCEL
55:D4:56:4C:02:71
50:DA:72:DD:F6:60
Press and release the PTT1 button of your Roger Covert System

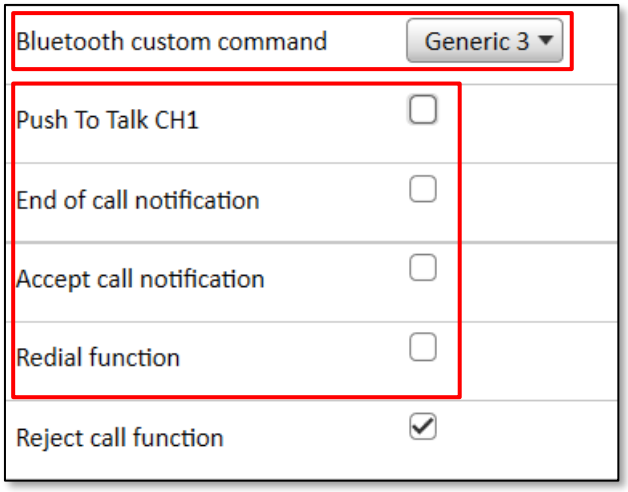

08:10
89%
Bluetooth
MY DEVICES
PhoPTT_2105C001D
AVAILABLE DEVICES
5A:EF:BE:55:24:0B
56:71:5F:F7:D3:E8
Device Connected
This device is now connected to your WAVE app
CLOSE
55:D4:56:4C:02:71
4E:06:24:FA:A4:B7
2E:22:09:18:9E:74
50:DA:72:DD:F6:60


08:10
89%
Bluetooth
MY DEVICES
PhoPTT_2105C001D
AVAILABLE DEVICES
5A:EF:BE:55:24:0B
56:71:5F:F7:D3:E8
45:DD:0D:E4:69:13
47:20:29:15:04:36
5B:F0:15:9E:E9:88
55:D4:56:4C:02:71
4E:06:24:FA:A4:B7
2E:22:09:18:9E:74
50:DA:72:DD:F6:60

8.8. Streamwide Team On The Run / Team On Mission

The Roger Covert System is compatible with the version 3.7.1 and above of the PTT-apps Team On The Run and Team On Mission of Streamwide.

1. On the “Bluetooth custom command” section of SCA, select “Generic 3” and configure the phone features as below:

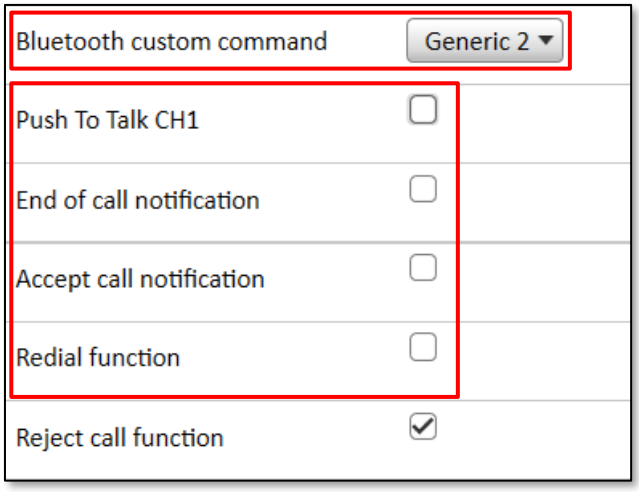


2. No special settings are required in the Team On The Run / Team On Mission apps, only to pair the Roger Covert System through the Bluetooth menu of the smartphone.

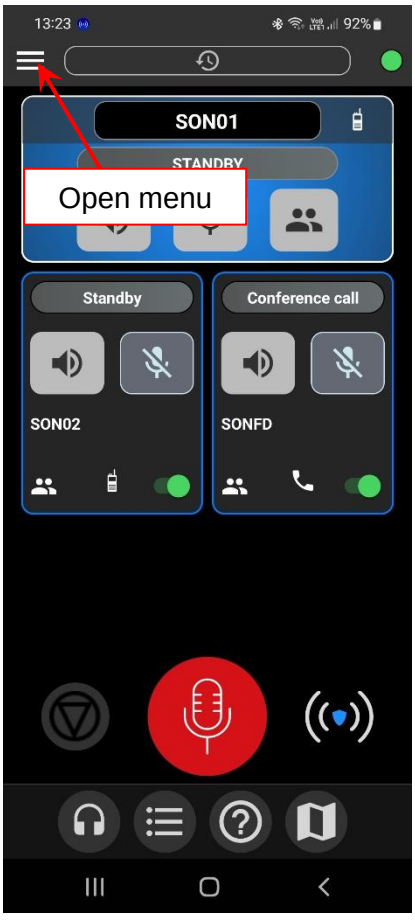
8.9. Lifeline

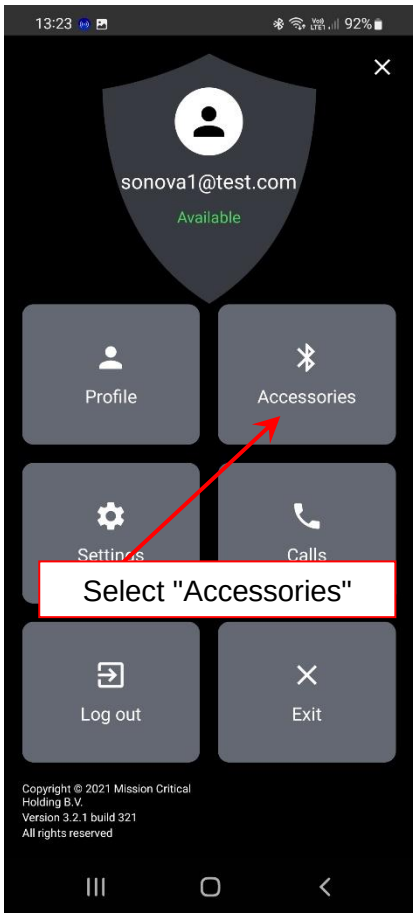
The Roger Covert System is compatible with the version 3.2.1 and above of the PTT-app Lifeline.

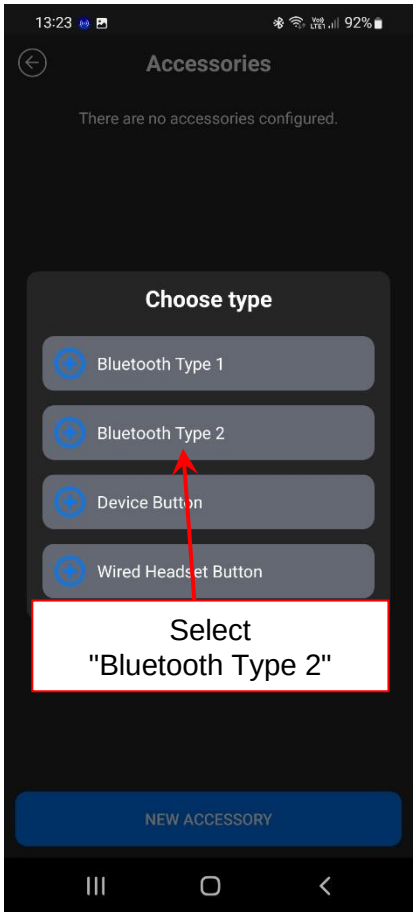
1. On the “Bluetooth custom command” section of SCA, select “Generic 2” and configure the phone features as below:

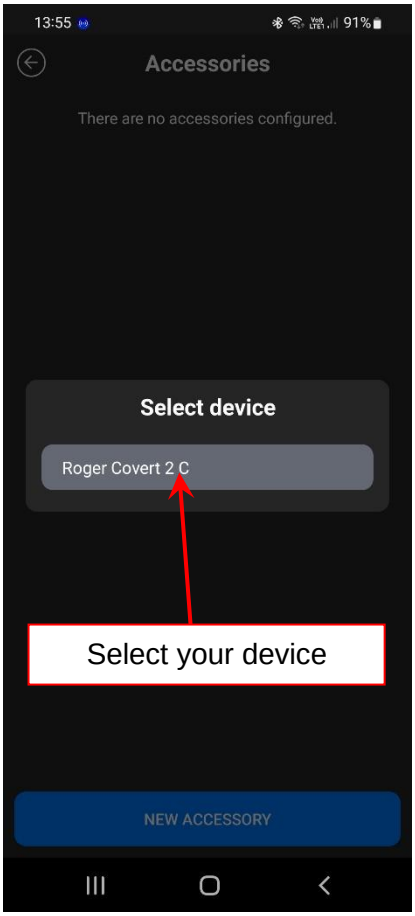


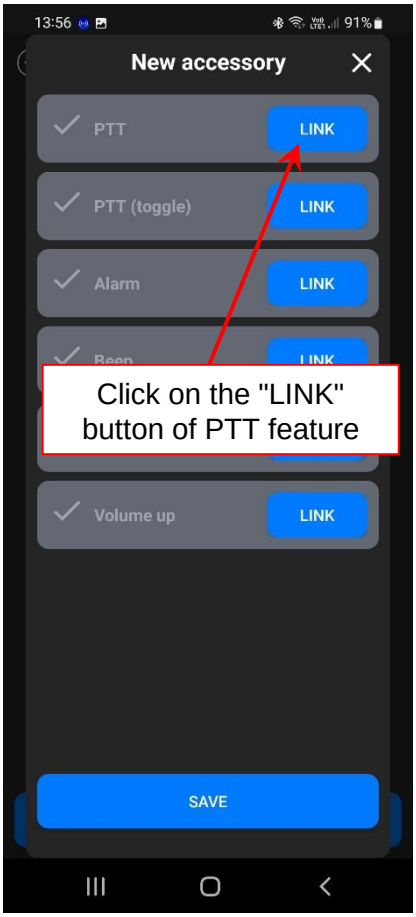
2. Configure Bluetooth accessory in Lifeline application as below:

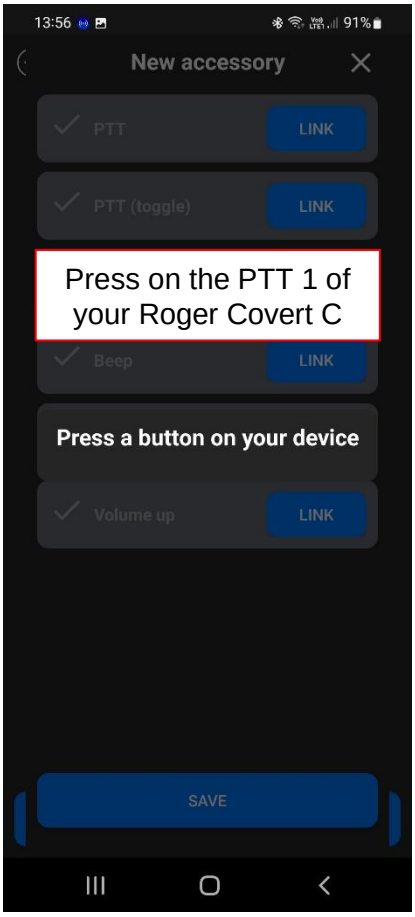


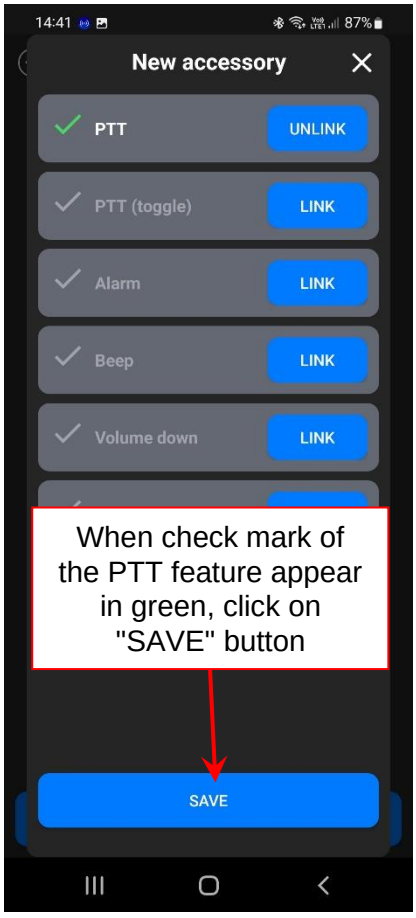



Accessories
There are no accessories configured.
Choose type
Bluetooth Type 1
Bluetooth Type 2
Device Button
Wired Headset Button
Select "Bluetooth Type 2"
NEW ACCESSORY


Accessories
There are no accessories configured.
Select device
Roger Covert 2 C
Select your device
NEW ACCESSORY


New accessory
PTT
LINK
PTT (toggle)
LINK
Alarm
LINK
Volume up
LINK
Click on the "LINK" button of PTT feature
SAVE


New accessory
PTT
LINK
PTT (toggle)
LINK
Press on the PTT 1 of your Roger Covert C
Beep
LINK
Press a button on your device
Volume up
LINK
SAVE


New accessory
PTT
UNLINK
PTT (toggle)
LINK
Alarm
LINK
Beep
LINK
Volume down
LINK
When check mark of the PTT feature appear in green, click on "SAVE" button
SAVE

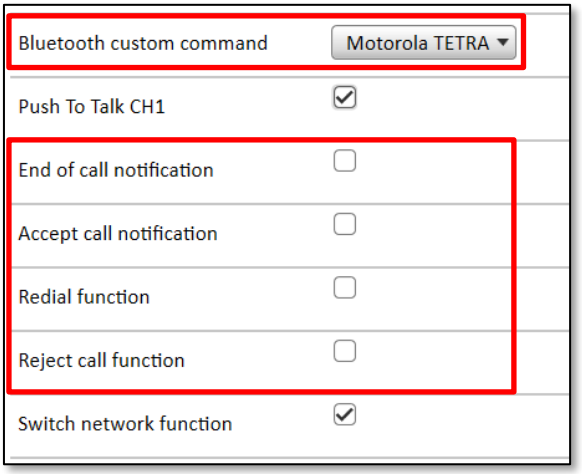
8.10. PTT-apps compatibility with generic PTT custom commands

The PTT-apps that are confirmed to be compatible with the generic Bluetooth custom command are listed below:

Generic 1	Generic 2	Generic 3
	Lifeline Motorola WAVE Push-to-Talk (PTT) (5.12+) - WAVE Mobile Communicator	Streamwide Team on the Run Streamwide Team on Mission

9. Roger Covert unit configuration for Radios through Bluetooth

On the “Bluetooth custom command” section of SCA, select the desired radio and deactivate all phone features as below:



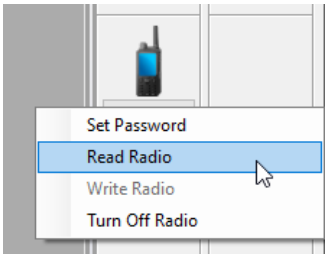
10. Radios settings

10.1. Motorola TETRA radios

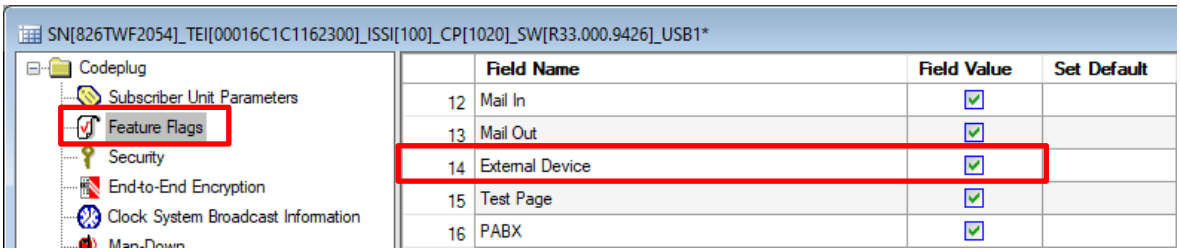
1. To use the Roger Covert C with a Motorola Tetra radio, the following Motorola licenses need to be activated on each radio.
   - BT Connectivity
   - BT Control
   - BT Audio & Object Push 626
   - ST Series Covert Solution (for Covert Mode on ST series radios)

2. Open the software Motorola Tetra CPS Plus

3. Connect your radio and read the configuration (your radio need to be charged at 80% at least to be readable):



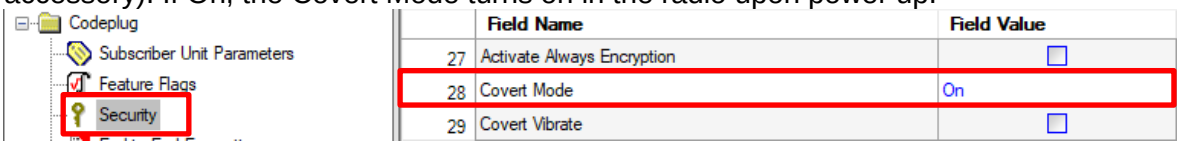
4. In the “Feature Flags” section, ensure that the “External Device” is checked:



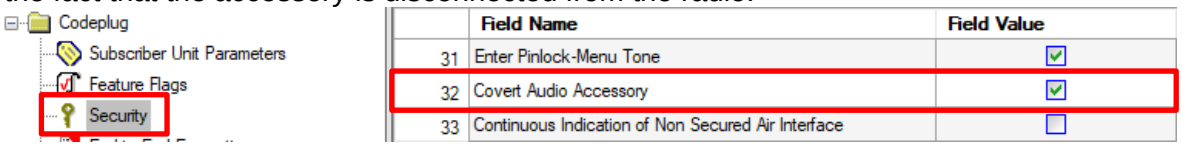
5. To ensure to keep the radio silent in case of Bluetooth disconnection between the Roger Covert and the radio, several parameters can be setup depending of the radio model:

   - MTP and MXP series (Choose the option that best suits your usage):

     Covert Mode – This feature enables you to completely shut down all visible and audible alerts and notifications (except in earpiece or connected accessory). If On, the Covert Mode turns on in the radio upon power up.



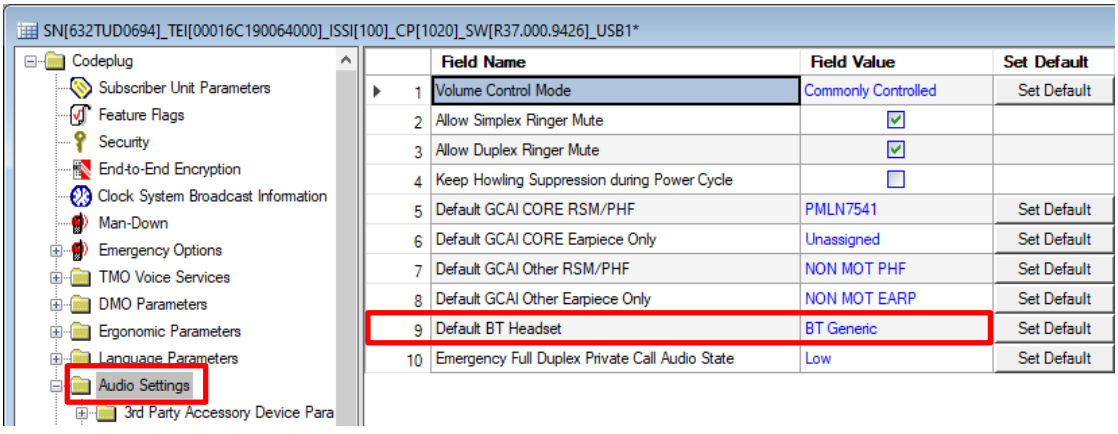
     Covert Audio Accessory – Under normal conditions, if an audio accessory disconnect from the radio, audio gests automatically routed to the radio loudspeaker. If this field is enabled, the radio keeps the speaker silent, despite the fact that the accessory is disconnected from the radio.



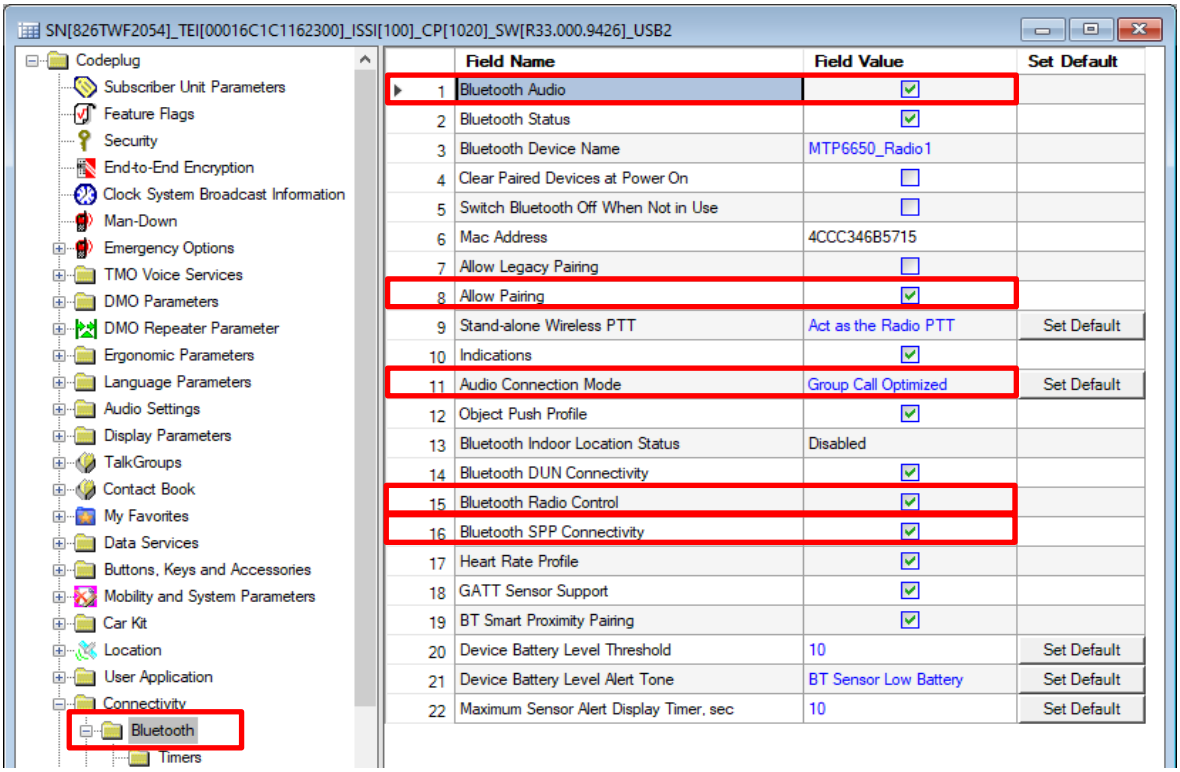
   - ST series:

     On the ST series radios, the settings are exactly the same as above but these features are not available by default.
     The “ST Series Covert Solution” license is required to enable these features.

6. In “Audio Settings” section, set the “Default BT Headset” value to “BT Generic”

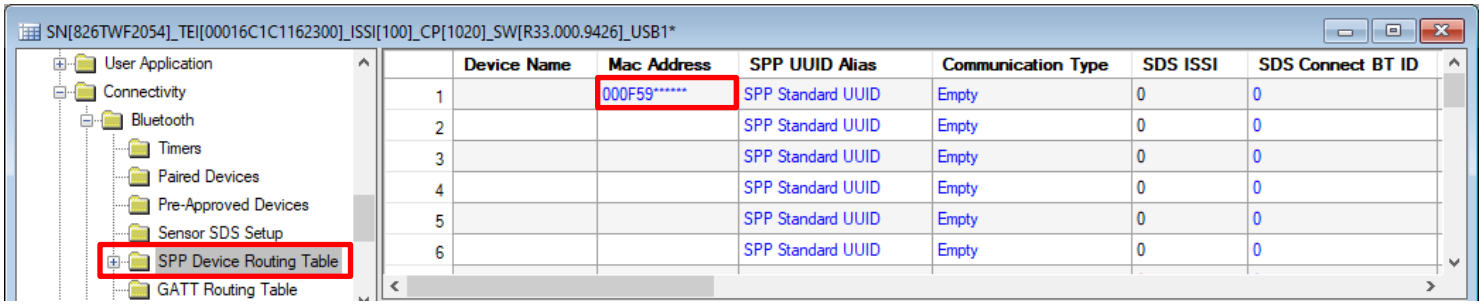


7. Go on the root of the “Bluetooth” section, and check the checkboxes as marked in red below (depending of the radio model, some parameters might not be displayed):

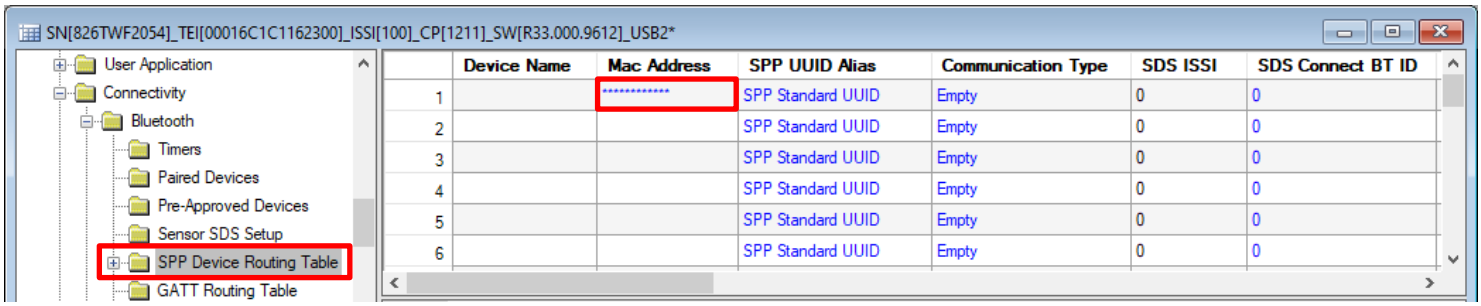


8. Go on the “SPP Device Routing Table” of the Bluetooth section. To allow all Roger Covert C to control your radio with the AT commands, enter the MAC address 000F59******

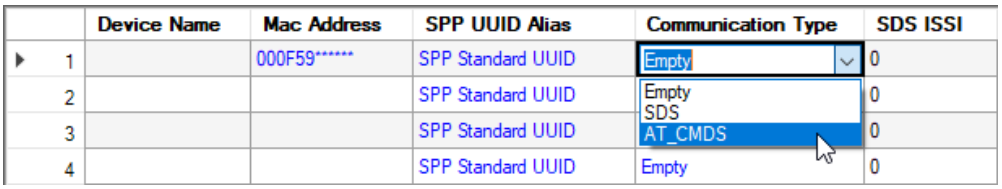
Warning! New models of Motorola TETRA radios are not using anymore the SPP Device Routing Table.
If the folder “SPP Device Routing Table” is not present in your Codeplug, skip the steps 8 to 15 and go directly to step 16.
Important! Do not enter any Bluetooth MAC address of Roger Cover C devices in the “Pre-Approved Devices” section.

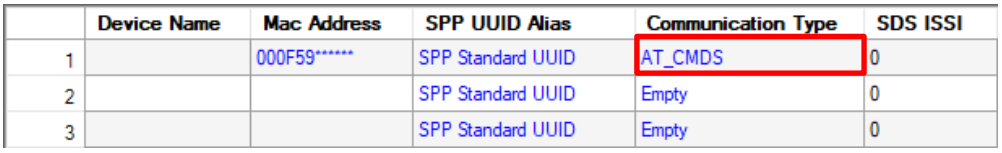


9. On some radios models, the definition of a restricted group of MAC addresses can cause issue with the PTT commands. In this case, allow all MAC addresses to control the radio with the AT commands by entering 12x wildcard characters (************).



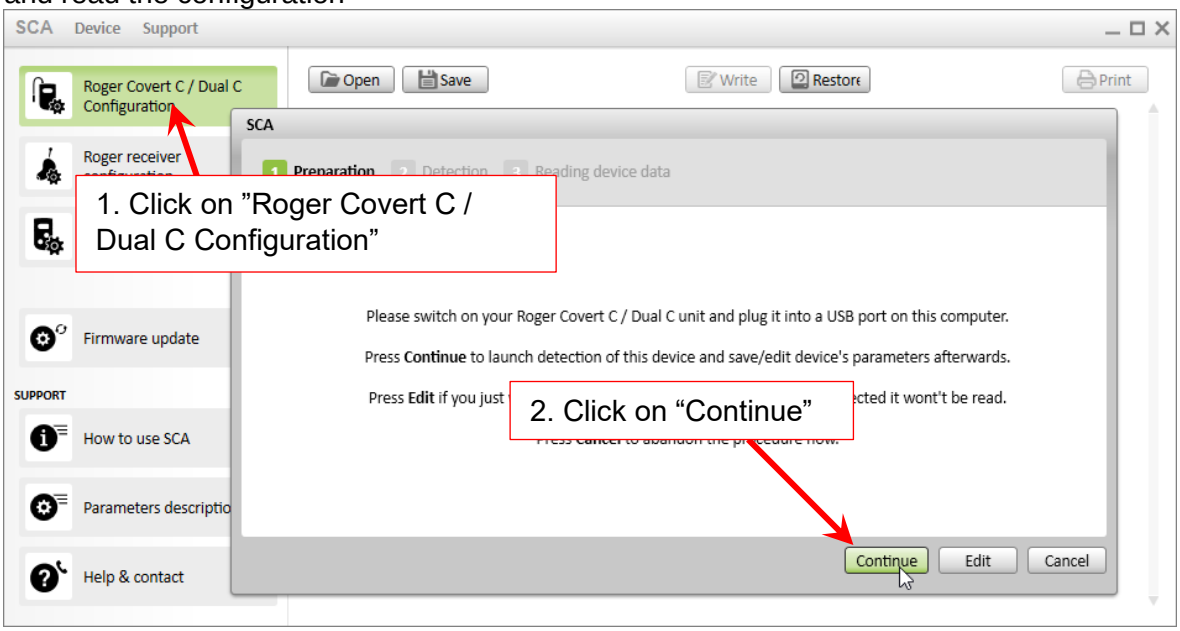
10. Then select “AT_CMDS” on the “Communication Type “ field:



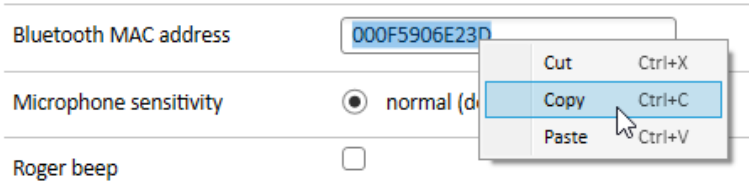


11. If you prefer to allow only a specific Roger Covert C to control your radio with the AT commands (or a group of Roger Covert C), follow the steps 11 to 15. Otherwise, go to the step 16 to write the configuration to the radio.

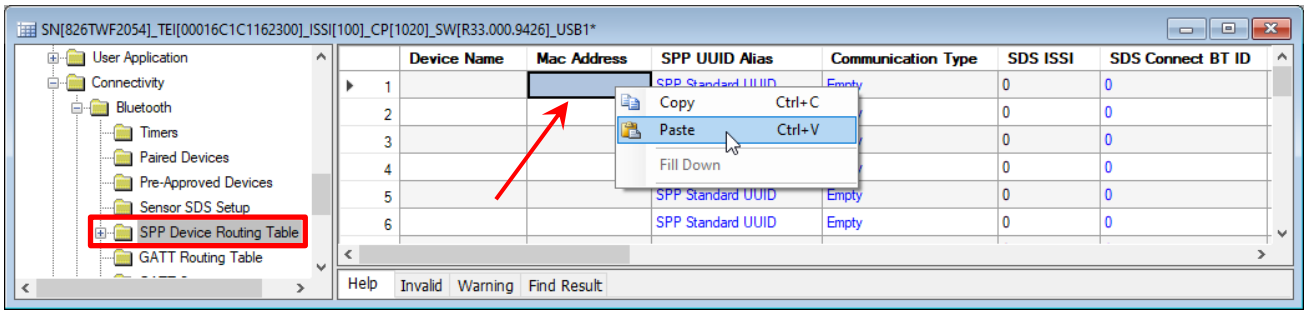
12. With the help of the USB cable, connect the Roger Covert unit to your computer and read the configuration



13. Select and copy the Bluetooth MAC address of the Roger Covert unit to prepare for the registration of the device on the radio through the Motorola Tetra CPS Plus software:



14. Go on the “SPP Device Routing Table”, paste the Bluetooth MAC address of the Roger Covert unit :



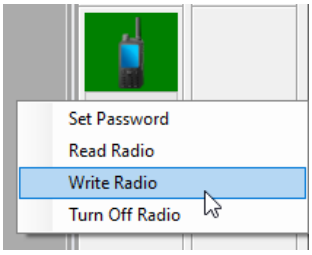
15. Then select “AT_CMDS” on the “Communication Type “ field:

	Device Name	Mac Address	SPP UUID Alias	Communication Type	SDS ISSI
1		000F5906E23D	SPP Standard UUID	AT_CMDS	0
2			SPP Standard UUID	Empty / SDS / AT_CMDS	0
3			SPP Standard UUID		0
4			SPP Standard UUID	Empty	0

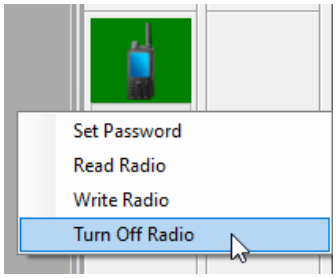
16. You can register up to 32 Roger Covert unit on one radio:

	Device Name	Mac Address	SPP UUID Alias	Communication Type	SDS ISSI
1		000F5906E237	SPP Standard UUID	AT_CMDS	0
2		000F59065323	SPP Standard UUID	AT_CMDS	0
3		000F5905FFE1	SPP Standard UUID	AT_CMDS	0
4			SPP Standard UUID	Empty	0
5			SPP Standard UUID	Empty	0

17. Write the configuration on the radio:



18. Turn OFF the radio through the Motorola Tetra CPS Plus software before disconnecting the radio:



19. Proceed to the pairing of the Roger Covert C through the menu of the radio

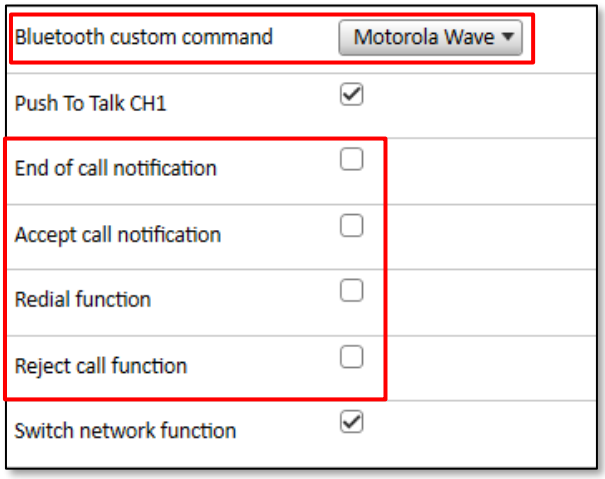
10.2. Motorola MOTOTRBO radios

To use the Roger Covert unit with a Motorola MOTOTRBO radio **DP3441e / DP3661e / DP4x01e**, the Motorola license "**HKVN4465A Mototrbo Bt Accessory Commands Radio**" need to be activated on each radio.

Proceed to the configuration of the Roger Covert C with SCA software (**refer to paragraph 8. Roger Covert unit configuration for Radios through Bluetooth**), no further radio configuration is then required. Go on with the pairing through the menu of the radio.

10.3. Motorola WAVE Two-Way radios (e.g. TLK 100)

1. On the “Bluetooth custom command” section of SCA, select “Motorola Wave” and deactivate all phone features as below:



2. The pairing process of the Roger Covert C with the radio is to be done through the Wave on Cloud management portal.
   Make sure pairing option is selected on the TLK100 device.

3. Launch Wave on Cloud portal.

4. Go to Wave devices and select the TLK100 device.

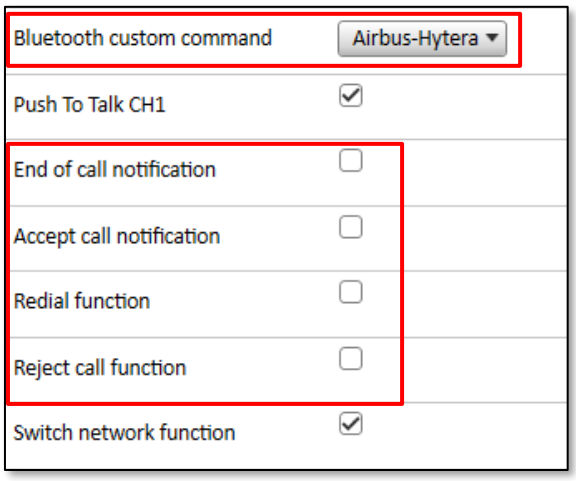
5. Go to drop down in top left corner and select Manage Bluetooth Accessories.

6. Enter in pairing mode on the Roger Covert System.

7. Enter the Bluetooth name of the Roger Covert System (as set in SCA) and 0000 as the pin code and then click save.

10.4. Airbus TPH900 radios

1. On the “Bluetooth custom command” section of SCA, select “Airbus-Hytera” and deactivate all phone features as below:

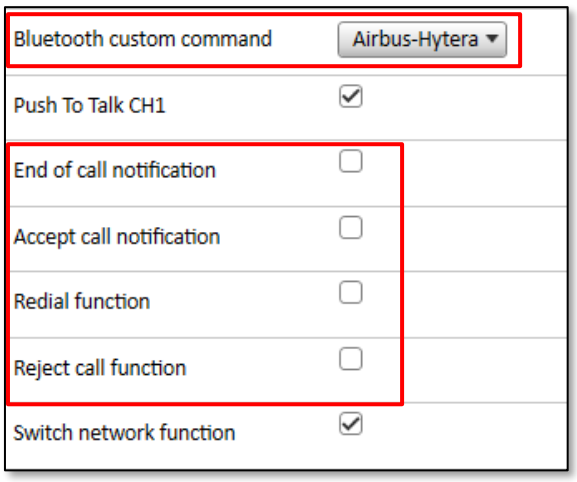


2. If Bluetooth PTT commands are not working, contact Airbus to ensure to have radio’s firmware version compatible with the Roger Covert C installed on your radio.

10.5. Airbus TH9 radios

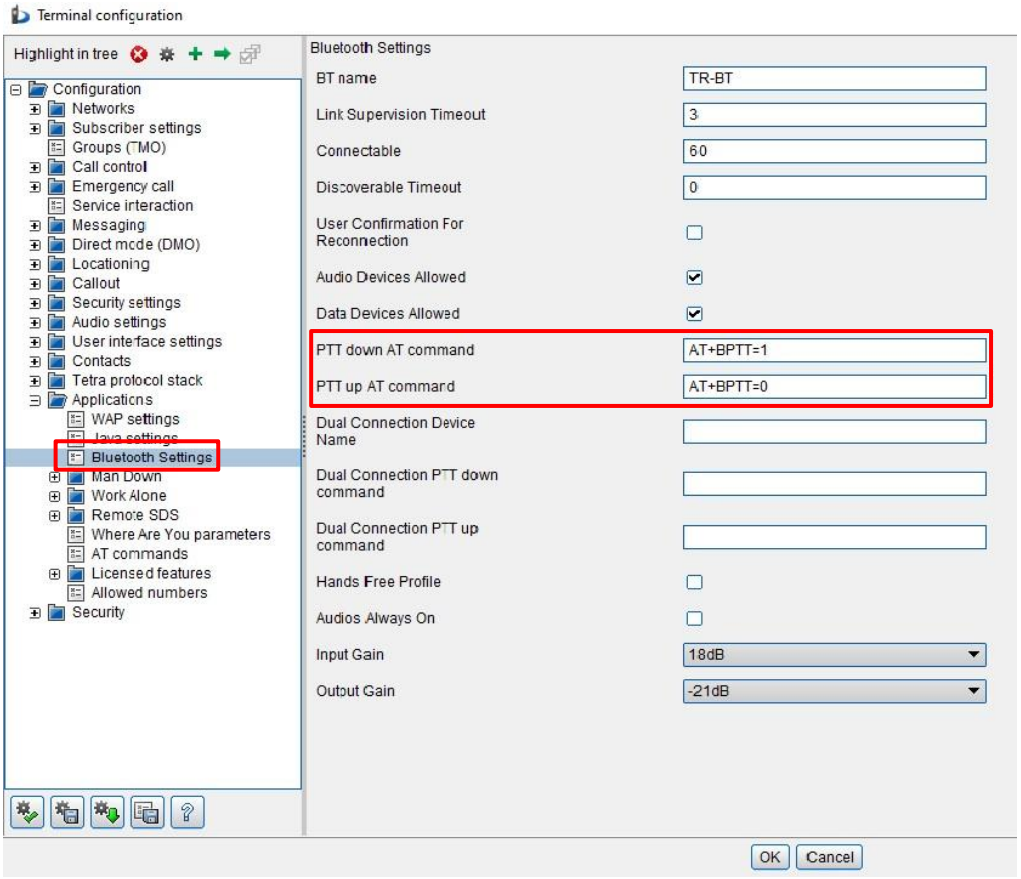
Tested with Airbus TH9 firmware V8.55-5/16.10.220

3. On the “Bluetooth custom command” section of SCA, select “Airbus-Hytera” and deactivate all phone features as below:



4. Ensure to have the latest version of the Airbus Taqto software to configure your radio.

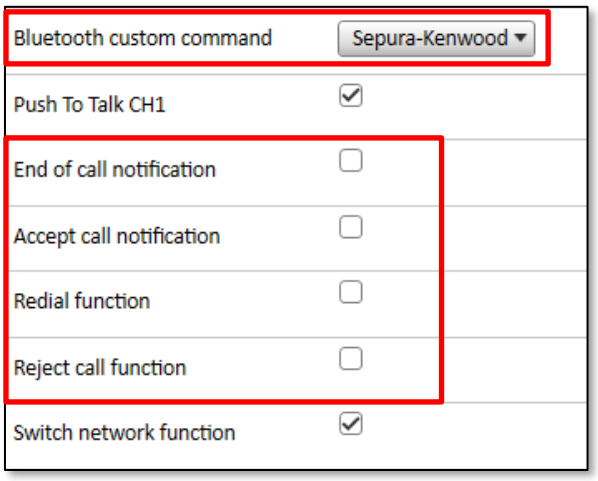
5. Open the Airbus Taqto software and configure the PTT Bluetooth AT commands on the radio as shown below:



6. Proceed to the pairing with the radio through the radio’s menu

10.6. Kenwood radios

1. On the “Bluetooth custom command” section of SCA, select “Sepura-Kenwood” and deactivate all phone features as below:



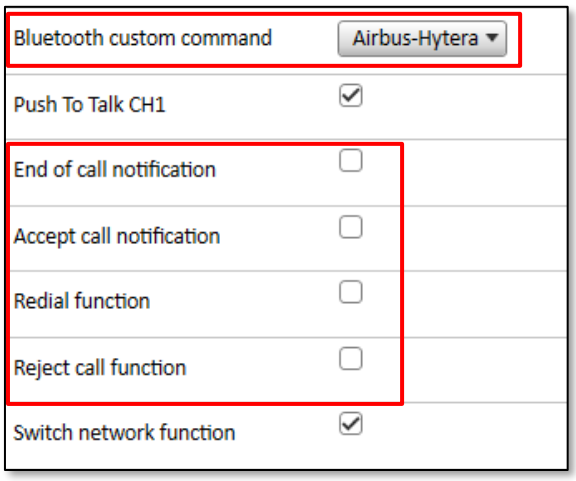
2. Proceed to the pairing with the radio through the radio’s menu

3. When the information “Connecting” appear on the radio’s screen, perform a short press on the PTT 1 of the Roger Covert C to confirm the connection (picture taken on Kenwood NX5200E, the radio’s screen might be different):

4. Pairing and connection is done.

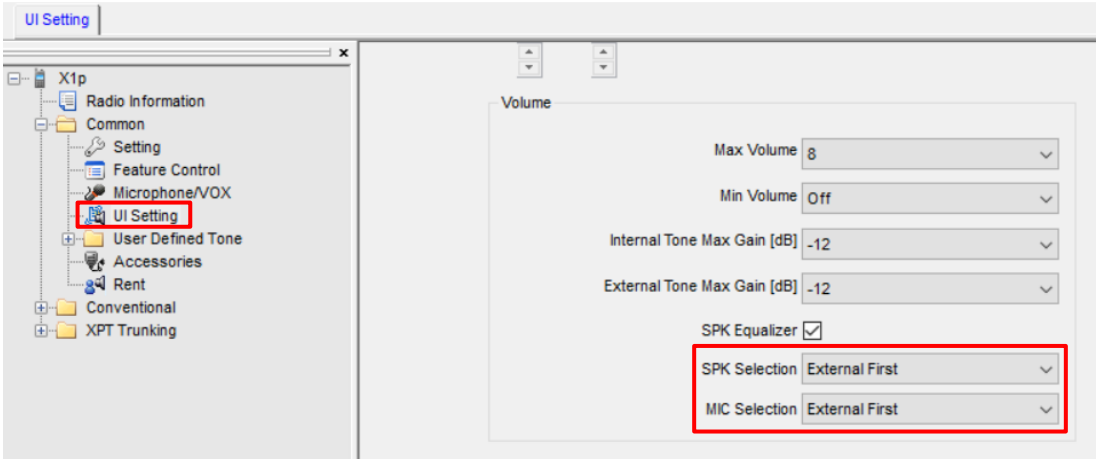
10.7. Hytera X1p radios

1. On the “Bluetooth custom command” section of SCA, select “Airbus-Hytera” and deactivate all phone features as below:



2. Ensure to have the required firmware installed on your radio:
   - Bluetooth chip firmware: V1.01.030 or above
   - Radio firmware: A9.02.01.013 or above

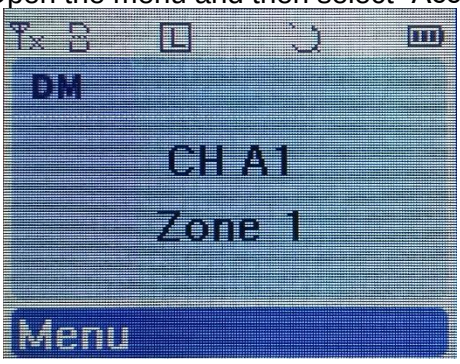
3. Open the software Hytera CPS and configure the speaker and microphone selection settings to use the external device.
   In the “UI setting” section, set:
   a. SPK Selection on “External First”
   b. MIC Selection: “External First” or “Follow PTT” (see detail below)

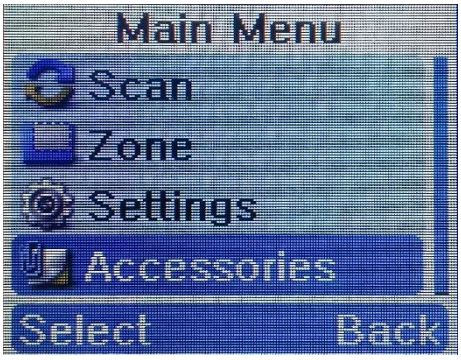


MIC selection	PTT used	Microphone used	
		Roger Covert C connected	Roger Covert C disconnected
Follow PTT	Radio PTT	Radio Mic	Radio Mic
	Roger Covert PTT	Roger Covert C Mic	N/A
External First	Radio PTT	Roger Covert C Mic	Radio Mic
	Roger Covert PTT	Roger Covert C Mic	N/A

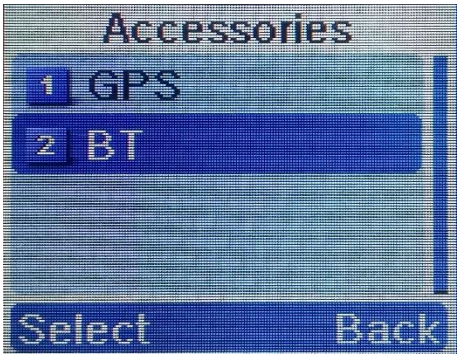
4. Proceed to the pairing with the radio through the radio's menu according to the steps below:

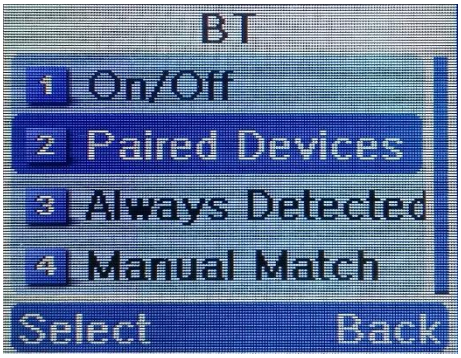
Open the menu and then select "Accessories"



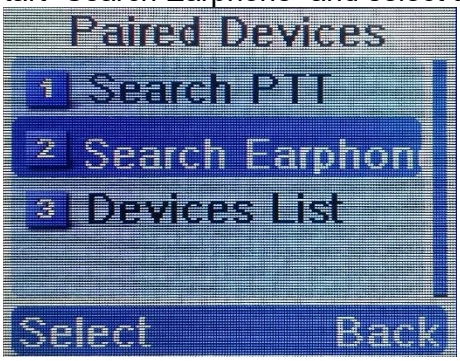


Select "BT" and then "Paired Device"

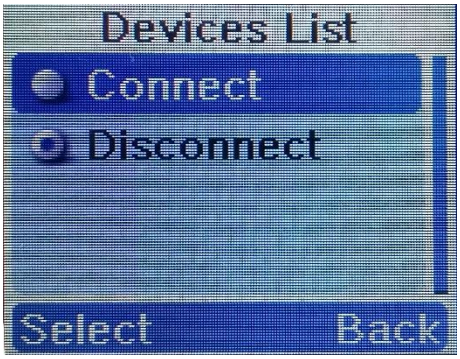


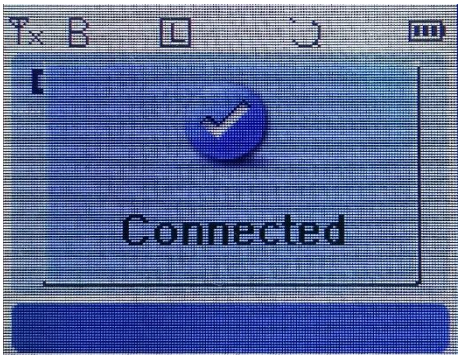


Start "Search Earphone" and select the Roger Covert C device



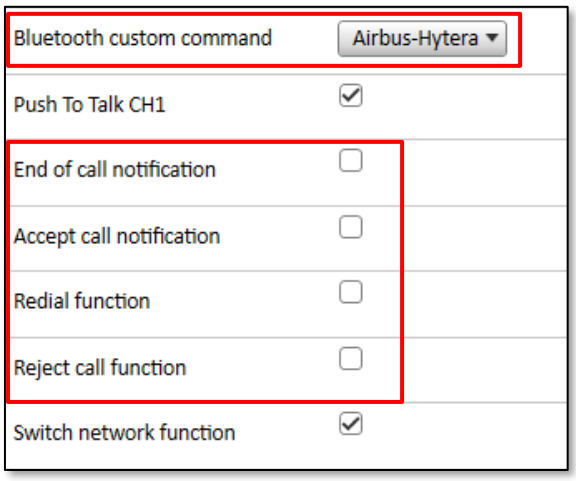
Confirm the connection of the device





10.8. Hytera Z1p radios

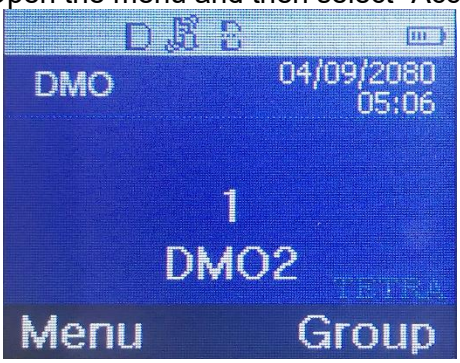
1. On the “Bluetooth custom command” section of SCA, select “Airbus-Hytera” and deactivate all phone features as below:

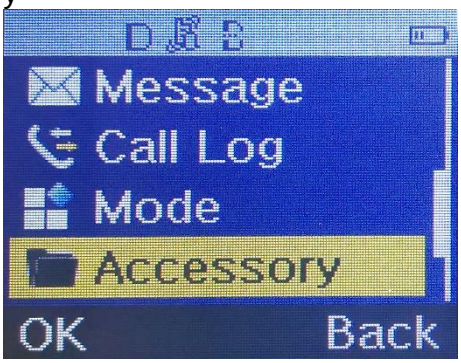


2. Ensure to have the required firmware installed on your radio:
   - Bluetooth chip firmware: V2.01.033 or above
   - Radio firmware: V3.09.02.007 F4 or above

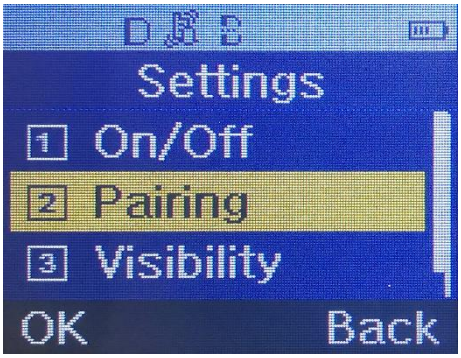
3. Proceed to the pairing with the radio through the radio’s menu according to the steps below:

   Open the menu and then select “Accessory”

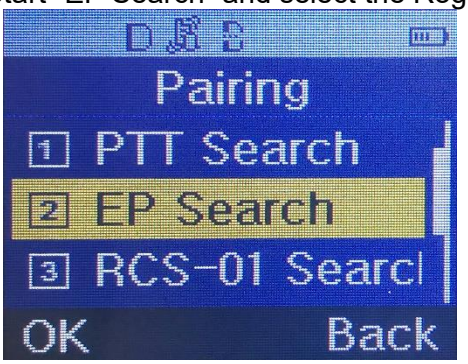


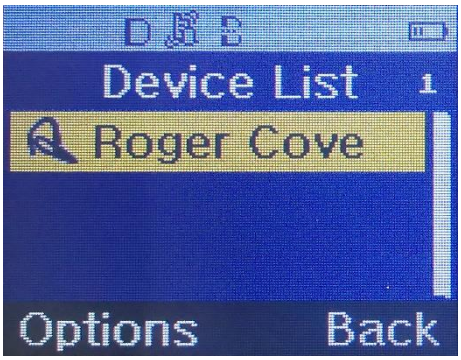


   Select “BT” and then “Pairing”

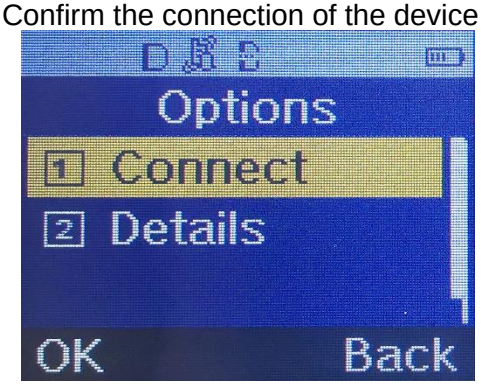


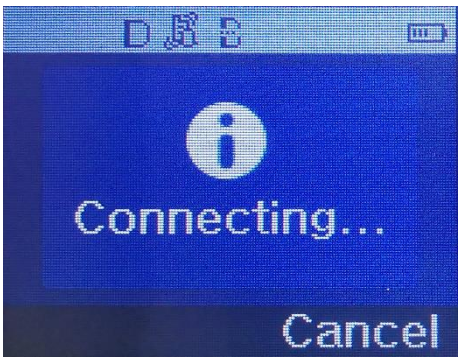
Start “EP Search” and select the Roger Covert C device

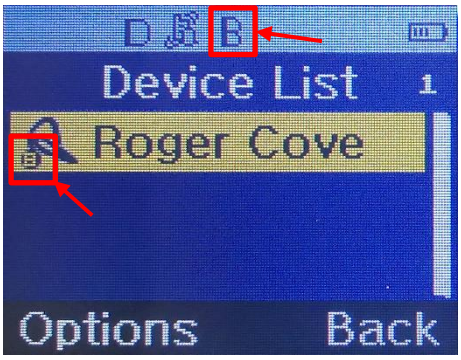




Confirm the connection of the device



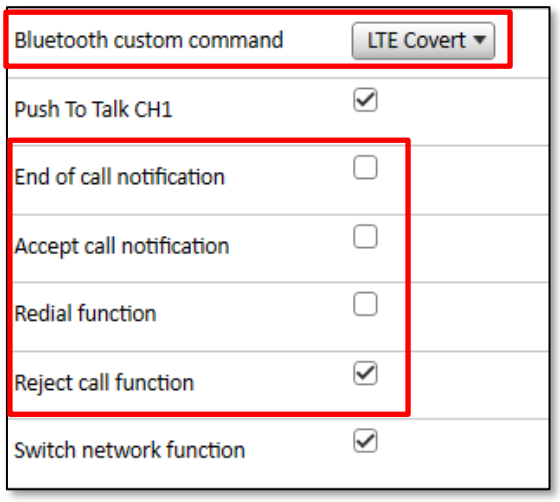




11. Phones settings

11.1. LTE Covert

On the “Bluetooth custom command” section of SCA, select “LTE Covert” and configure features as below:



Important! The LTE Covert has a built-in redial function, so it’s mandatory to deactivate the Roger Covert Redial function.

12. Technical assistance

In case a technical assistance would be required, contact your Sales Representative.
Please make sure to have following information available :

1) Phone/radio brand
2) Phone/radio model
3) Android version / radio firmware version
4) PTT-app version
5) In depth description of the issue (Use case, condition to face the issue, …)

13. Document history

Version	Date	Change
1.0	03.09.2019	Initial version
2.0	01.12.2020	Add Motorola Wave PTT-app Add radios configurations
3.0	19.02.2021	Add Airbus TH9 and Hytera X1p
3.1	27.04.2021	Add covert mode configuration for Motorola TETRA
3.2	09.08.2021	Update PTT apps screenshots according last apps versions
3.3	20.08.2021	Add Hytera Z1p
3.4	28.09.2021	Improve instructions for new Tetra radio Add Motorola WAVE Two-Way radios Add Airbus TPH900 Add LTE Covert
3.5	01.11.2021	Add notice about firmware update
3.6	13.01.2022	Add Streamwide Team On The Run / Team On Mission PTT-apps Add notice about recommendation of the vibrator mode for PTT-apps (section 5.)
3.7	05.04.2022	Add Lifeline application Add notice about workaround for PTT-apps with Iphones devices (section 5.)
3.8	01.11.2022	Improve instructions for PTT-apps with Iphones devices (section 5.) Improve instruction for Motorola WAVE Two-Way radios Add Motorola WAVE Push-to-Talk (PTT) (5.12+) - WAVE Mobile Communicator application
3.9	10.01.2023	Add notice about “Nearby devices” permission since Android 12 (section 5.) Update of instructions for Instant Connect Enterprise according app version 3.2.1 and above.