

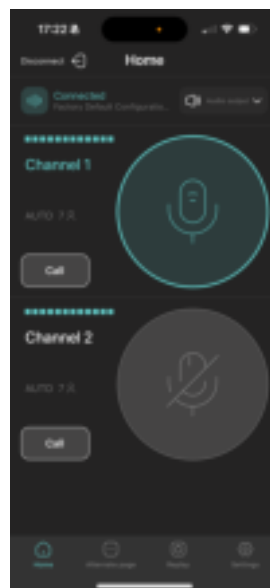


PUNQTUM
► BY RIEDEL

USER MANUAL

PunQtum Wireless App

Q-Series Network Based Partyline System



This manual is applicable for the App Version: 1.0

© 2024 Riedel Communications GmbH & Co. KG. All rights reserved. Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of Riedel. Every effort has been made to ensure that the information in this manual is accurate. Riedel is not responsible for printing or clerical errors. All trademarks are the property of their respective owners.

1	PREFACE	4
1.1	INFORMATION.....	5
2	ABOUT PUNQTUM Q-SERIES DIGITAL PARTYLINE SYSTEM	6
3	GETTING STARTED	7
3.1	CHOOSE A MOBILE DEVICE	7
3.1.1	Android devices.....	7
3.1.2	Apple devices	7
3.2	CHOOSE A HEADSET.....	7
4	USING YOUR PUNQTUM WIRELESS APP.....	8
4.1	FIRST TIME USAGE.....	8
4.2	LOGIN TO YOUR PUNQTUM PARTYLINE SYSTEM	9
4.3	MAIN PAGE.....	10
4.3.1	Channel Volume (A)	10
4.3.2	Channel Name (B).....	10
4.3.3	TALK Button operation mode & Channel user count (E)	10
4.3.4	CALL active indication (F).....	11
4.3.5	ISO & IFB active indication (G).....	11
4.3.6	Audio receive indication (H).....	11
4.3.7	Connection status & quality (I).....	11
4.3.8	Disconnect button (J)	12
4.3.9	Audio output selector (K)	12
4.4	ALTERNATE PAGE	12
4.4.1	Public Announce, Talk to All & Talk to Many functions.....	12
4.4.2	Control Outputs switching	13
4.4.3	System Mute function	13
4.4.4	System Silent function.....	13
4.4.5	Mic Kill function	14
4.5	REPLAY PAGE.....	14
4.6	SETTINGS PAGE	15
4.6.1	Role, I/O and Program selection	15
4.6.2	Audio settings	15
4.6.3	WLAN Quality Test.....	16
4.6.4	About page	17
5	Q-TOOL	17

1 Preface

Welcome to the PunQtum digital partyline family!

This document provides detailed information about the PunQtum Q-Series digital partyline system.

NOTICE

This manual, as well as the software and any examples contained herein are provided “as is” and are subject to change without notice. The content of this manual is for informational purposes only and should not be construed as a commitment by Riedel Communications GmbH & Co. KG. or its suppliers. Riedel Communications GmbH & Co. KG. gives no warranty of any kind with regard to this manual or the software, including, but not limited to, the implied warranties of marketability or fitness for a particular purpose. Riedel Communications GmbH & Co. KG. shall not be liable for any errors, inaccuracies or for incidental or consequential damages in connection with the furnishing, performance or use of this manual, the software or the examples herein. Riedel Communications GmbH & Co. KG. reserves all patent, proprietary design, title and intellectual property rights contained herein, including, but not limited to, any images, text, photographs incorporated in the manual or software.

All title and intellectual property rights in and to the content that is accessed through use of the products is the property of the respective owner and is protected by applicable copyright or other intellectual property laws and treaties.


© 2024 Riedel Communications GmbH & Co. KG. All rights reserved. Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of Riedel.


All trademarks are the property of their respective owner.

1.1 Information

Symbols

The following tables are used to indicate hazards and provide cautionary information in relation to the handling and use of the equipment.

	This text indicates a situation that needs your close attention. It may also be used to alert against unsafe practices.
---	---

	This text is for general information. It indicates the activity for ease of work or for better understanding.
---	---

2 About PunQtum Q-Series Digital Partyline System

PunQtum Q-Series digital partyline system is a digital, easy to use, full-duplex communications solution for theater and broadcast applications as well as for all kinds of cultural events like concerts, etc.

It is an all-new, network-based partyline system which combines all standard partyline system features including wireless access and more with the advantages of modern IP networks.

PunQtum Q-Series works on standard network infrastructure and is easy to install and set up.

The system works “out of the box” with a factory default configuration but can be quickly configured by user-friendly software to meet individual needs.

The system is completely decentralized. There is no master station or any other central point of intelligence in the whole system. All processing is handled locally in each device except for the PunQtum wireless Apps which require a PunQtum Q210 PW Speaker Station to serve as a bridge to the Q-Series digital partyline system. The capacity of one partyline system is set to a maximum of 32 channels, 4 program inputs, up to 4 public announce outputs and 32 control outputs. Each PunQtum Q210 PW Speaker Station serves up to 4 PunQtum Wireless App connections.

PunQtum Q-Series digital partyline systems are based on Roles and I/O settings to ease the use and administration of partyline systems.

A Role is a template for the channel configuration of a device. This allows channel settings and alternate functions to be predefined for different Roles needed to run a live show. As an example, think of the stage manager, sound, light, wardrobe and security personnel having different communication channels available to deliver a perfect job.

An I/O setting is a template for the settings of the equipment connected to a device. This, for example, allows I/O settings to be available for different Headsets being used at a venue to cover for different environmental situations.

Each device can be configured to any Role and I/O setting available.

Multiple PunQtum partyline systems can share the same network infrastructure. This allows for the creation of production islands within a campus using the same IT network infrastructure. The number of devices (Beltpacks/Speaker Stations and Wireless Apps) is theoretically infinite but limited by the network capacity. Beltpacks are powered by PoE, either from a PoE switch or from a Speaker Station. They can be daisy-chained to reduce wiring efforts on site.

Beltpacks and Wireless Apps support simultaneous use of 2 channels with separate TALK and CALL buttons. An alternate page button allows the user to quickly reach alternate functions such as public announce, Talk To All, Talk To Many, control general purpose outputs and access system functions like Mic Kill asf. The Beltpack is designed with a combination of premium materials, including high-impact plastics and rubber to make it both tough and comfortable to use in any situation.


PunQtum Q-Series Beltpacks, Wireless Apps and Speaker Stations allow users to replay missed or not understood messages. Program input signals can be fed into the system using an analog audio input at any Speaker Station.

Sunlight readable, dimmable RGB color displays used for Beltpacks and Speaker Stations make for excellent readability of the intuitive user interface.


3 Getting Started

Get the free PunQtum Wireless App from the Apple App Store or Google Play store and install it on your mobile device.

3.1 Choose a mobile device

	Choose Phones which support at least Wi-Fi 5 standard. The reuse of older phones is not recommended nor supported.
---	---


3.1.1 Android devices

	Choose devices that run Android version 11 or greater.
---	--

Recommended phone models are:

- Google Pixel 6 and up
- Samsung Galaxy A line from model A12 and up
- Samsung Galaxy S line from model S10 and up

3.1.2 Apple devices


	Choose phones that run iOS version 16 or greater. iPad models running iPadOS 17 or greater support running the app in compatibility mode.
---	---

Recommended phone models are:

- iPhone 8 and up

3.2 Choose a headset

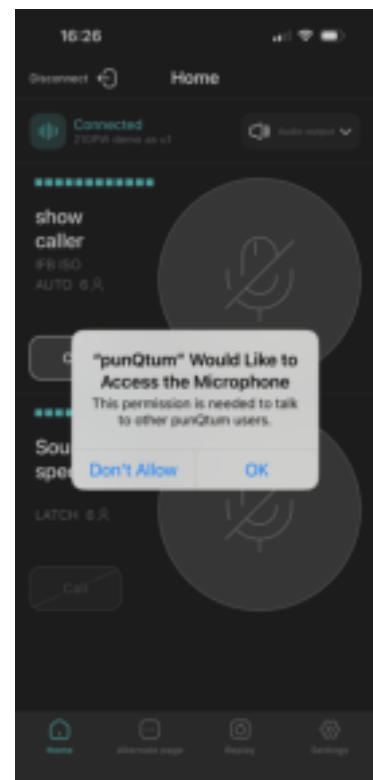
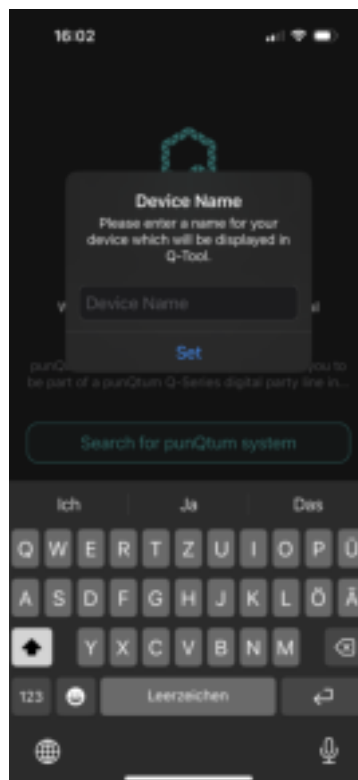
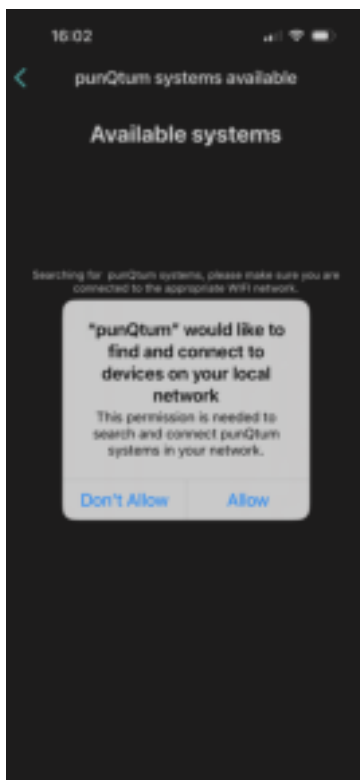
Using bluetooth based headsets introduce additional delay on what you hear compared to cable based headsets connected to your phone.

	<p>To minimize delays introduced by bluetooth headsets, use headsets using the latest bluetooth standards as older headsets and bluetooth software implementations tend to produce bigger delay times.</p> <p>If you experience audible delay between your headset and your environment, you might want to experiment with switching your program input to none or use noise canceling headsets.</p>
---	--

4 Using your PunQtum Wireless App

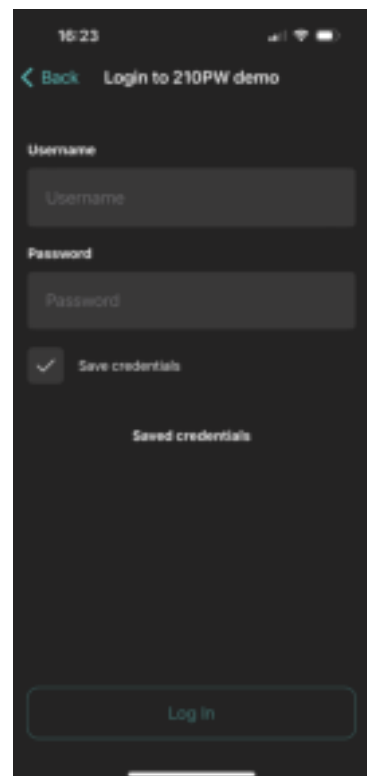
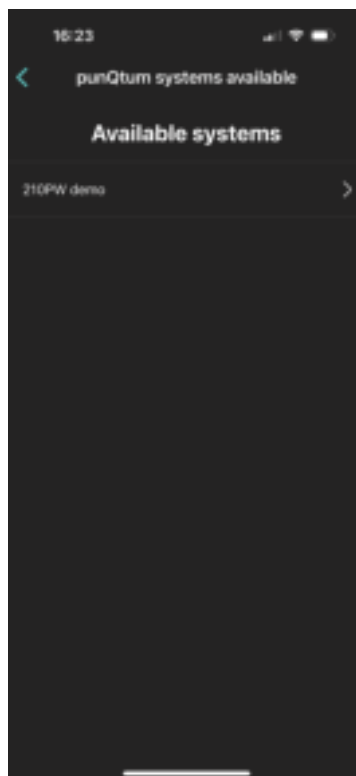
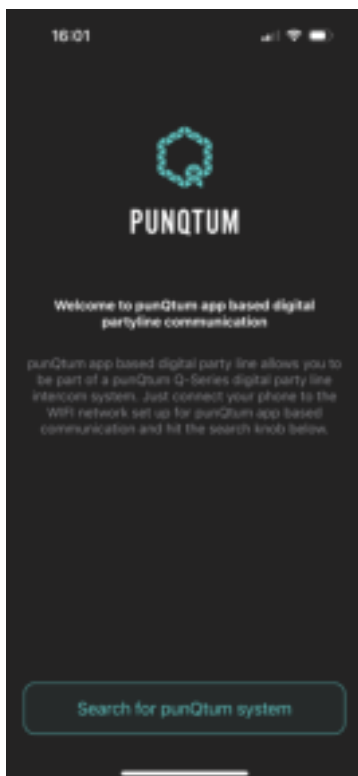
4.1 First Time Usage

- On first time usage please allow to find devices on your network. You will not be able to connect if you disallow.
- Please name your device. This name will be used to identify your device in the online systems tab of Q-Tool.
- Once logged in, please allow to access your microphone.



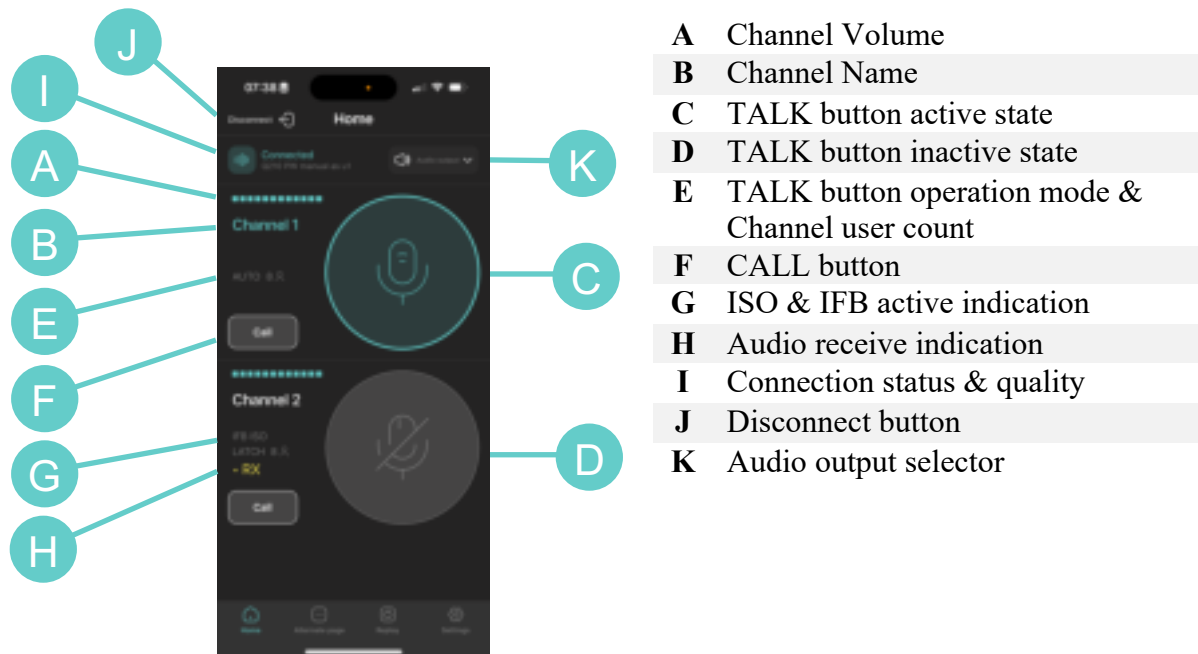
4.2 Login to your PunQtum partyline system

- Make sure your Phone is connected to the Wi-Fi network of your PunQtum Q-Series digital partyline system and open the PunQtum wireless app.
- Hit the 'search for PunQtum system' button.
- You will see the available system(s).
- Select the system you want to connect to. If the system you selected does not have user management enabled, you will be logged in directly.
- Enter your credentials or select from the saved ones to be logged in.
- Swiping left on saved credentials lets you delete them



4.3 Main Page

The display will provide you with information on Channel A, Channel B and on Connection status and quality.



4.3.1 Channel Volume (A)

Channel volume display. Channel volume can be set in the settings page.



4.3.2 Channel Name (B)

The Channel Name shown is the Name as defined in the configuration of Q-Tool.



4.3.3 TALK Button operation mode & Channel user count (E)



TALK buttons offer three operation modes. The mode is defined in the role settings

1. **AUTO**, a double function:
 - Push the TALK button momentarily, the TALK function is now latched On.
 - Push the TALK button momentarily, the TALK function is now Off.
 - Push and hold the TALK button, the TALK function is active as long as the TALK button is held, when the TALK button is released the TALK function is switched Off.
2. **LATCH**:
 - Push the TALK button momentarily, the TALK function is now latched On.
 - Push the TALK button momentarily, the TALK function is now Off.
3. **PUSH**:
 - Push and hold the TALK button, the TALK function is active as long as the TALK button is held, when the TALK button is released the TALK function is switched Off.

Channel user count shows the number of users available on this channel. If the symbol is shown in red, you are the only user of this channel.

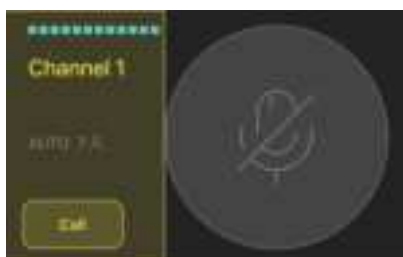


4.3.4 CALL active indication (F)

If a CALL signal is received on a Channel, the display will show a yellow flashing square on the Name section of the Channel. A CALL buzzer signal will be heard at the same time.

If the CALL signal remains active for more than two seconds the full channel section will flash. At the same time, a different buzzer signal will be heard.

The volume of the buzzer signal can be changed in the audio settings page.



4.3.5 ISO & IFB active indication (G)

The symbol ISO indicates an active Isolate function. When you activate the TALK button of that Channel you will only hear the users of that Channel, audio from other Channels you receive is muted.

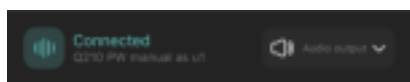
The symbol IFB indicates an active Interrupt Fold Back. The program input signal level is dimmed by the amount specified in the Role if someone is speaking on the channel.

4.3.6 Audio receive indication (H)

The yellow RX indication is shown if audio is being received on the channel.

4.3.7 Connection status & quality (I)

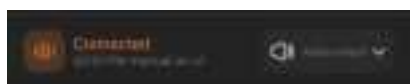
Connection quality is constantly monitored and displayed using a color scheme. Make sure the connection quality does not get below the yellow state at locations you rely on uninterrupted communication. For more information on how to measure the quality of your wireless infrastructure, see chapter 4.6.3 WLAN Quality Test.



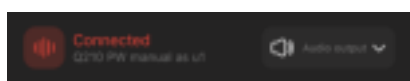
Good quality



Sufficient quality



Poor quality



Very poor quality



If you are disconnected from the WI-FI network for a longer time you are offered a reconnect button to seamlessly reestablish the connection. If this fails, you will be redirected to the welcome page of the PunQtum wireless app.

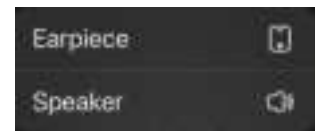
4.3.8 Disconnect button (J)

The disconnect button closes the connection to the PunQtum digital partyline system and leads back to the welcome screen of the app.



4.3.9 Audio output selector (K)

If you have no headset connected to your phone, you will be able to select between Earpiece and Speaker.



If you have a headset connected to your phone, you will be able to select between Headphone and Speaker.



4.4 Alternate Page



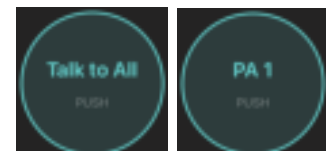
The alternate page provides functions like Public Announce, Talk To All and Talk To Many, Control Outputs switching, System Mute, System Silent and Mic Kill. You can assign a maximum of 4 functions to this page using Q-tool configuration software.

If no functions are assigned to the alternate page, the Alternate Page will show no buttons.

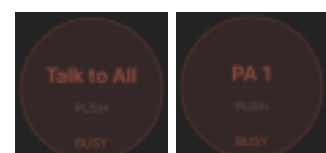
4.4.1 Public Announce, Talk to All & Talk to Many functions

Public Announce and Talk to all or Talk to Many functions are available to a single user at a time.

Activated state of the user talking:



Busy state if the function is occupied already:



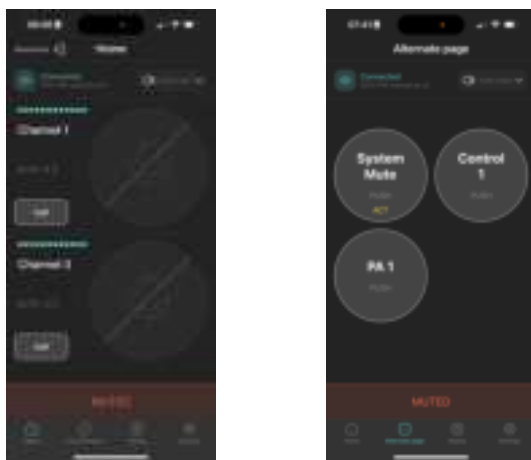
4.4.2 Control Outputs switching

Control outputs can be controlled from any device in the system. If the output is active, you will see a yellow ACT indicator.



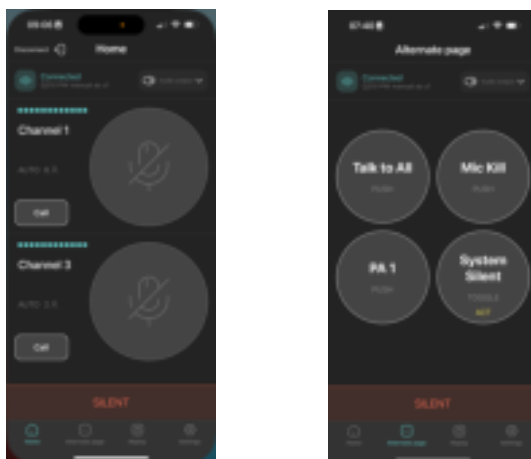
4.4.3 System Mute function

SYSTEM MUTE disables all CALL and TALK functions and mutes all program input signals and stays active as long as the Button is pressed (PUSH behavior). If System Mute is active, you will be notified by an orange MUTED indicator.

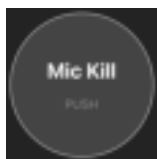


4.4.4 System Silent function

SYSTEM SILENT mutes all speakers of your PunQtum digital partyline systems. Communication using headsets is still possible and public announcements remain functional. Optical signaling when using a CALL function remains functional as well. The function is activated through a button push. Pressing the button again deactivates the function (TOGGLE behavior). If system silent is active, you will be notified by an orange SILENT indicator.



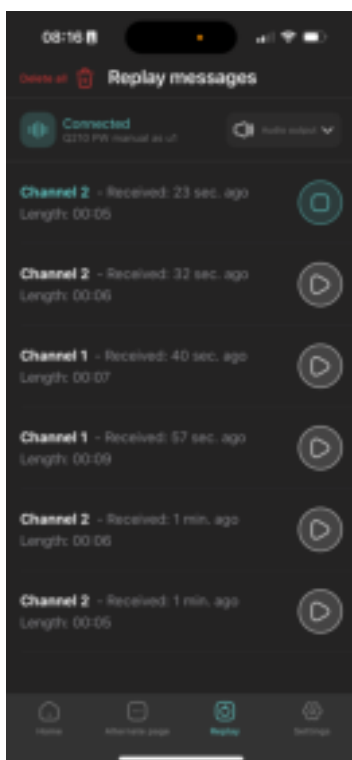
4.4.5 Mic Kill function



Clicking the Mic Kill button on a device will reset all active TALK functions of the channels the device role is assigned to except for the TALK functions active on the device where Mic Kill is issued. A long press on the Mic Kill button will reset all active TALK functions of all channels available in the system configuration except for the TALK functions active on the device where Mic Kill is issued. The purpose of this function is to be able to 'silence' overly busy channels to be able to transmit important / urgent messages.

Please note that the Mic Kill function is not applied to interface connections, because they are typically used to interconnect different communication systems. Mic Kill functions can be propagated to and received from other systems using the GPIO ports on a PunQtum Speaker Station.

4.5 Replay Page



The replay page lists the last messages you have received if the message recording feature is enabled for your PunQtum digital partyline systems.

A maximum of 6 messages are recorded and can be replayed by pushing the play button of the message. The last message received is always on top of the list.

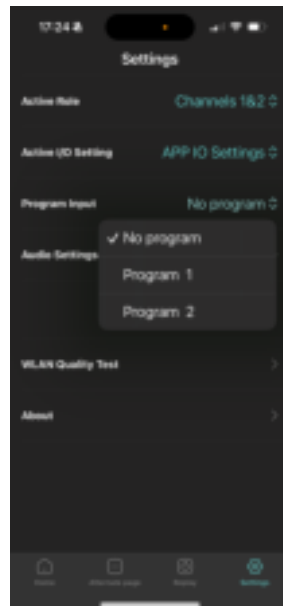
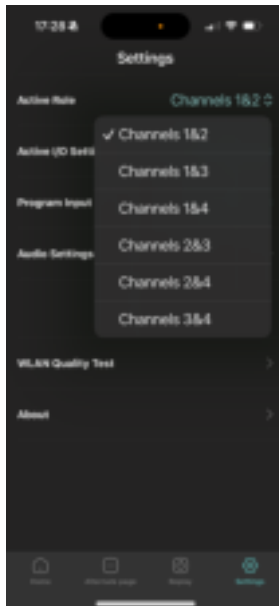
If you disconnect from the system, all recorded messages are deleted. You can actively delete all messages using the 'delete all' button.

If message recording is disabled, the list will stay empty.

4.6 Settings Page

The settings page allows you to change configuration settings according to the user and role rights defined in for your PunQtum digital partyline system. See Q-tool configuration documentation on how to control user and role rights.

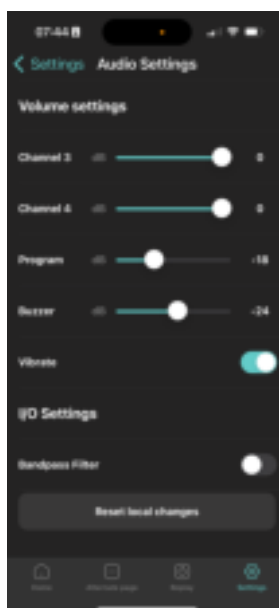
4.6.1 Role, I/O and Program selection



Role, I/O and Program settings can be selected using the dropdown menus.

The availability of roles, I/O and Program settings depends on the user and role rights defined in Q-Tool.

4.6.2 Audio settings



Volume settings:

- The overall volume is controlled through the volume knobs of your mobile device
- Channel volume controls the volume of the individual channels.
- Program volume controls the volume of your program input.
- Buzzer volume controls the volume of the CALL signals.
- Vibrate adds haptic feedback to the operation of knobs. On IOS devices, this is only available if vibrate is activated in the accessibility settings.

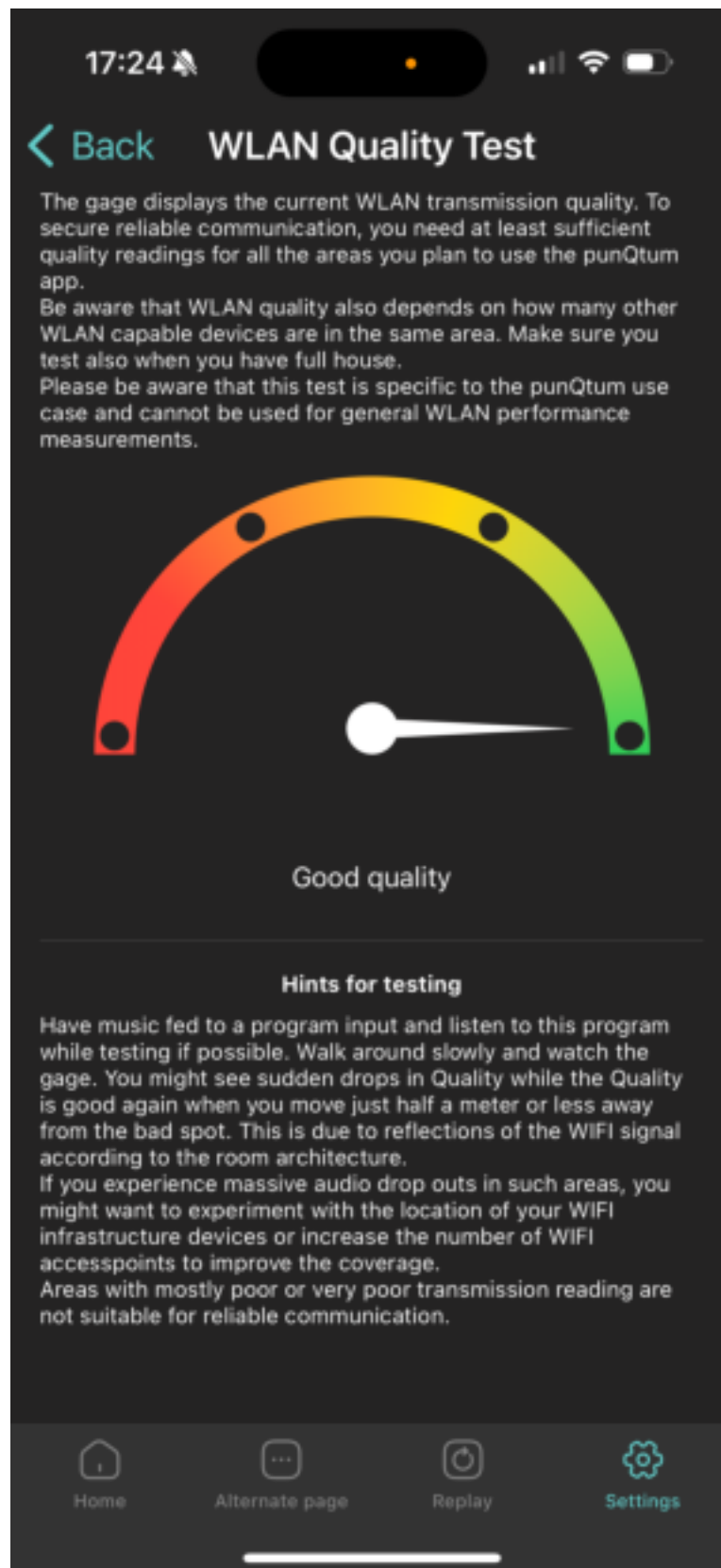
I/O settings

- Enable or disable the bandpass filter

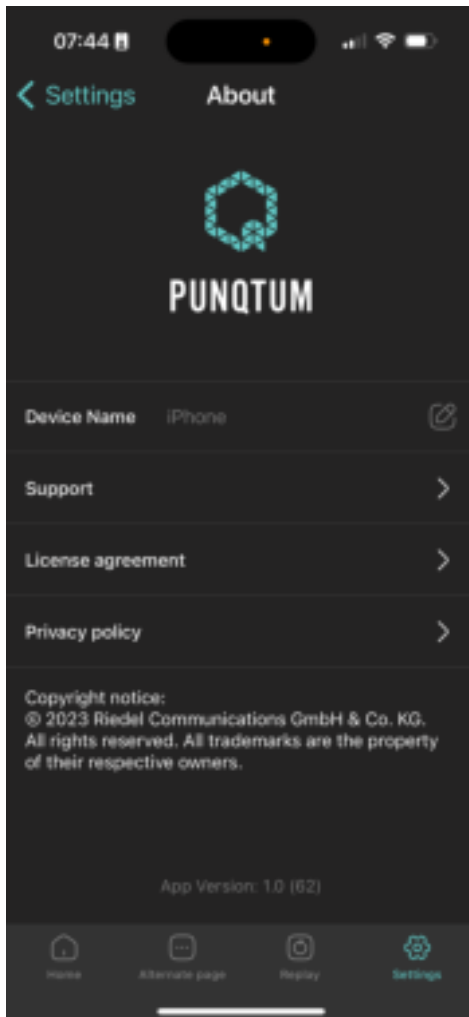
Reset local changes button

- Restores all individual settings to their default values.

4.6.3 WLAN Quality Test



4.6.4 About page



The about page lets you change the device name your device is identified with in Q-Tool configuration software.

Furthermore you get information on how to get technical support, the license agreement and privacy policy regulations.

Find the App version at the bottom of the page.

5 Q-Tool

Get your free copy of Q-Tool, the Q-series digital partyline configuration software to enjoy the full features of your PunQtum partyline. You may download it from the PunQtum website <https://punqtum.com/q-tool/>.



Please read the Q-Tool manual for more information on the configuration with Q-Tool.