



**A^{RF37} Wireless Audio
Conference System**
915MHz version



User Guide

About this Document

This guide describes the ARF37 devices, their options and accessories. It explains how to set the features to enable a conference communication between several devices.

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Ref. 915MHz – 08-10-V2-psn

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Declaration of Conformity



Manufacturer's name :	ADEUNIS R.F.
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certify and declare under our sole responsibility that the following apparatus:

Description: **ARF37 Digital Hopping Audio Communication System in 915-928MHz band.**
 Manufacturer: **ADEUNIS RF**
 Identification: **ARF7531**

conforms with the essential requirements for Australia market:

Harmonised Standards :

- IEC 60950-1 ed.2 (*safety*)
- AS/NZS 4268:2003 +A1(2005) + A2 (2006) (*Radio and EMC for Australia*)

Name and position of person binding the manufacturer or his authorised representative:
VINCENT Hervé
CEO - Adeunis RF

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Ref. 915MHz - 08-10-V2-psn

Compliance to FCC US/CAN

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY ADEUNIS RF COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

WARNING !

FCC Radiation Exposure Statement:

This portable equipment with its antenna complies with FCC's RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance follow the instructions below;

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. Avoid direct contact to the antenna, or keep it to a minimum while using this equipment.

Introducing the A^{RF37}

The A^{RF37} allows you to establish a conference communication, using up to 6 wireless devices in a team.

Having set the conference parameters, you can use the devices, speak and hear the other users.

Product Description

The A^{RF37} devices are delivered with the following options :



Audio conference devices with a 3.7 V **1000 mA/h** battery
 Operating temperature: -10 / +50°C
 Dimensions : 120 mm x 60 mm x 25 mm
 Weight : 150 g
 Battery reload : 2 hours
 Battery autonomy : 8 hours

Ref. with a waterproof locking connector **ARF7531A**



Audio conference devices with a 3.7 V **2000 mA/h** battery
 Operating temperature: -10 / +50°C
 Dimensions : 120mm x 60mm x 30mm
 Weight : 170 g
 Battery reload : 3 hours
 Battery autonomy : 16 hours

Ref. with a waterproof locking connector **ARF7531B**

Accessories

To complete the communication system, the following accessories are available :



Standard headset kit with waterproof locking connector

Ref. 7382-A – M32



Customized headset kit with waterproof locking connector

Ref. 7382-A – M33



Belt

Ref. CEINTURE 110



Harness

Ref. 7382-A - M09



Armband

Ref. 206105



3.7 V 1000 mA/h battery

Ref. EASYPACK 1000



3.7 V 2000 mA/h battery

Ref. EASYPACK 2000



5-slot battery rack for reloading the batteries

Ref. ARF7418A



Clip

Ref. CL1-N



Case

Ref. NOVA 4 AW



Push-to-talk button (only available for locking connector)




Ref. 7382-A – M34

Getting Started

Keyboard Description

The keyboard allows you to select the functions and their options. This is a capacitive keyboard. It will be more efficient when pressing the button on the sign.

The available keys are as follows :

Keys	Description
	Power On/Off Key active during parameters setting
	Menu Access to the device settings menu
	Option selection In the device settings menu, the buttons allow you to adjust the parameters. When you are not in the device settings menu, the buttons give you direct access to volume settings.
OK	Validation Allows you to validate the selected option or to exit the device settings menu.

NOTE

Each time you press a button, the device displays a * and produces a "beep".

Function Usage

To use a function, make sure you press the corresponding key for 2 seconds.

To turn the device on, press the ON/OFF button for 2 seconds.

To turn the device off, press the ON/OFF button for 2 seconds.

Using the Screen and Keyboard

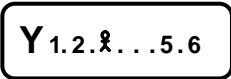







Each device is composed of a screen which displays information and a keyboard for entering the different settings.

Screen Description

When powered on, the screen provides you with information on :

- the device online status,
- the battery level,
- the device settings.

The screen indicators are as follows :

Indicators	Description
	<p>System status</p> <p> indicates the device in the system. The other numbers indicate the devices online in the conference.</p> <p>A dash over the number indicates that the listening of this device is validated.</p>
	<p>Hopping frequency table</p> <p>25 channels between 915 and 928 MHz</p>
	<p>Product identifier (Role setting)</p> <p>Indicates the device number in the conference or "system listener"</p>
	<p>Volume settings</p> <p>Indicates the volume level, with 9 levels.</p>
	<p>Battery indicator</p> <p>Provides information on the battery level, with 5 levels:</p> <ul style="list-style-type: none"> • Full capacity. • 75% capacity. • Less than 50% capacity, reload is recommended. • Less than 25% capacity, reload is required. • Minimum capacity, the device cannot work.
	<p>Keypad Locked / Unlocked</p> <p>Except the On/Off function</p>
	<p>Indicates whether you are using an enhanced filter (F+) or a regular one (F)</p>

Setting a Conference

To set a conference, you have to perform the following operations :

1. Assign a number to each device that will take part in the conference.
2. Define the radio channel used for the communication.
3. Enable the devices to enter the communication.

All the parameters, including the volume settings, are stored and remain the same if the device is switched off or the battery removed.

Assigning a Number to a Device

To set a communication, you must first identify all the devices that will take part in the conference and assign a number to each of them.


There may be between 2 to 6 devices in a conference, with numbers 01 to 06.


Each device has a unique number that identifies it. One device must be set with number 01.

NOTE

Avoid assigning the same identifier to several devices as this will prevent the communication from being set.

Procedure




1. From the main screen, press  for two seconds to access the **Role setting** menu.
2. In **Role setting**, select the identifier number using + or -.

3. Press **OK** to validate your choice.
4. Press  to select another menu or **OK** to exit the **Device setting** menu.

Changing the intensity of the noise filter

Depending on the noise level in the place where the products will be used, you can choose an enhanced filter (F+) or a regular one (F).




Procedure

1. From the main screen, press  for 2 seconds to access the **Device setting** menu
2. Press  again to access the **Filter setting** menu.
3. In the **Filter setting** menu, change the filter's intensity using **+** or **-**.
4. Press **OK** to validate your choice
5. Press  to select another menu or **OK** to exit the **Device setting** menu.

Changing Hopping frequency table

To communicate, the devices must be turned into the same table. The system integrates 3 orthogonal hopping frequency tables which allow the usage of 3 different systems in the same area.

Procedure

1. From the main screen, press  for 2 seconds to access the **Device setting** menu.
2. Press  twice to access the **Table setting** menu.
3. In the **Table setting** menu, select the table using + or -.
4. Press **OK** to validate your choice.
5. Press  to select another menu or **OK** to exit the **Device setting** menu.

Enabling Devices to Enter a Conference

To enable communication, devices must memorize an encryption key provided by device 01. This operation is necessary in the following conditions:

- To enable all the devices to enter a conference.
- To add a device to a conference already set.

IMPORTANT



The devices cannot communicate if this procedure, also known as the encryption procedure, is not performed.

Procedure

Make sure that the following requirements are met before starting the procedure :

- All the devices must use the same table.
- Only one device has the identifier 01.

Operations on device 01


1. On all the devices, press  for 2 seconds to access the **Device setting** menu.
2. On all the devices, press  3 times to access the encryption.
3. On all the devices, press **OK** to proceed



5. When the encryption procedure has been validated on all other devices, press **OK** to end the procedure.

Operations on the other devices

4. When a device has received the encryption key from device 01, it indicates encryption ****DONE****. Press **OK** to validate.

NOTE

On device 01 : To leave without saving. Press 

On the other devices : To leave without saving if the device does not return ****DONE****, press  or. 

Using the Devices


Using the Listener Mode

You can use a device as a listener only. In the listener mode, the device can only receive and hear other devices in the conference. It does not enable you to speak.

IMPORTANT

The listener can only work if you have proceeded to the encryption. The listener only works if at least 2 devices (01 and another) are in the conference.

Procedure

1. Press  for 2 seconds to access the **Role setting** screen.
2. Press + until the role proposed is "system listener."
3. Press **OK** to proceed.

NOTE



To exit the Listener Mode, when you are in the Role setting menu, you first must press – for 2 seconds 2 times sequentially

Validating or Invalidating Other Devices Listening

For any devices (listener and other devices), you can select which devices of the system you want to listen to. This is indicated by a small dash over the number of the device in the main screen.

By default, the listening is validated on every device.

Procedure

1. Press  for 2 seconds to access the **Role setting** screen.
2. Press + until the role proposed is "system listener".
3. Press + for 2 seconds to access the listener selection screen.
4. Press **OK** to enter.
5. Press + or - to select the device.
6. Press **OK** to update.
7. When the modifications are finished, press  to exit.

Setting the Volume



To set the volume, proceed as follows :

1. Make sure you are on the main screen. Press the + or - key for 2 seconds.
2. You can hear a beep in the earflap.
3. To modify the volume level, press + or -. You can use 9 levels. A double beep in the earflap indicates the maximum or minimum level.
4. Press **OK** to validate.

Locking or Unlocking the Keypad

When you have finished configuring the device, it is recommended that the keypad be locked.

Procedure

1. In the main screen, press **OK** for 2 seconds until  appears on the screen. The keypad buttons are no longer available for use except the On/Off button.
2. To unlock the keypad press **OK** for 2 seconds until the  disappears.

NOTE

The keypad is automatically locked when you switch on the device.

Reloading the Battery

You can reload the batteries before they are unloaded.

The batteries are reloaded in 3 to 4 hours.

Their autonomy is 8 to 16 hours. (middle consumption: 200mA – peak consumption: 600mA)

CAUTION

- When stored unused, the batteries keep discharging due to a small current consumption in OFF mode. Remove the battery from the device when you stop using it and check the battery level before re-using once again the product.
- Only use easypack batteries referenced in the user guide. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard

NOTE

Consumers may recycle their used batteries in many retail or service provider locations.

Additional information on proper disposal and recycling may be found on the web: www.rbr.org/call2recycle/

Troubleshooting

Frequent problems are outlined below to help you solve them.

I cannot communicate with other devices.

- Check that all the devices have the same hopping frequency table.
- Check that one device is identified with number 01.

The device cannot enter the conference.

- Make sure all the devices have been encrypted to enter the conference - especially if you have added a device after having started the conference.
- Avoid assigning the same number to several devices.

The device does not start.

Check that the battery is charged and correctly inserted.

There are communication disturbances.

Another conference system may be in use close to yours. Change the hopping frequency table to avoid disturbances.
Make sure there is no contact between the antenna and the wire of the headset.

I hear crackling noises.

The microphone of one of the other devices is probably damaged. Replace it.

I can hear myself, there is an echo.

Check there is at least 10 m between the devices' micros.

The buttons are not working properly.

- Ensure that your finger is pressing the sign on the button.
- Avoid pressing more than one button simultaneously with your finger or hand.