Aeroline Duet

Wireless Microphone System

USER MANUAL





Wharfedale Pro

www.wharfedalepro.com

IMPORTANT SAFETY INSTRUCTIONS

1. The equipment must only be connected to the power outlet specified in the manual. Failure to comply may result in fire or electric shock.

2. Do not place containers with liquids or small metal objects on the equipment. If liquid or metal falls into the equipment, it may cause fire or electric shock.

3. Do not place weight (including the equipment) on the power cord, otherwise it may damage the power cord, which can lead to fire or electric shock.

4. Do not place the power cord in the vicinity of a heater, otherwise it may lead to melting and causing a fire.

5. Do not scratch, bend, twist, stretch or heat the power cord, as damage to the power cord can lead to fire or electric shock.

6. To pull out the power plug from the power outlet, please grasp the insulation part of the plug, do not pull the cable. Failure to do so may damage the power cord and the socket, which can lead to fire or electric shock.

7. Do not use wet hands to touch the power plug, as this can lead to electric shock.

8. Please ensure that water does not enter the equipment or expose it to damp conditions. Failure to do so may result in fire or electric shock.

9. Please do not use the equipment during the following occasions:
- An unstable platform surface, such as a shaking table or an inclined plane.
- A place where the air is exposed to high humidity or where dust accumulates.
- Exposed to an overheated environment, such as a window in a closed car or in direct sunlight.
- Exposed to splash oil foam, such as steam, stoves, boilers, humidifiers and other places.

10. There are ventilation holes at the front and behind the equipment. To avoid the impact of internal cooling, do not block the ventilation holes.

11. Please keep enough space around the equipment. Reserved space should not be less than: side 5cm, behind 10cm, and air flow unblocked.

12. If you want to move the equipment, please unplug the power plug and unplug all the connecting cables. Failure to do so may result in fire or electric shock.

13. Keep the equipment's attachments in a location out of reach of children.

14. Do not open the equipment cover, as this may lead to electric shock. If you think the equipment needs to be repaired or maintained, please contact the agent.

15. Do not make unauthorised modifications to the equipment. Doing so may cause malfunction, fire, or electric shock.

16. If lightning strikes, please close the power switch as soon as possible and unplug the power cord.

17. The equipment's output signal may carry high voltage, posing a risk of electric shock. Please use a dedicated connection header.

18. When connecting to the equipment, please turn off all the audio equipment and speakers.

19. If you do not use the equipment for a long time, please unplug the power cord from the AC power outlet. Failure to do so may result in fire.

20. If the power cord is damaged (e.g., cut or with exposed wires), obtain a replacement from an authorised agent. Continuing to use the equipment may result in fire or electric shock.

21. If the equipment's casing is damaged or it has fallen from a height, immediately turn off the power switch, unplug the power cord, and contact an authorised agent. Failure to do so may result in fire or electric shock.

22. If any abnormalities occur, such as smoke or odours, immediately turn off the power switch, unplug the power cord, and contact an authorised agent. Failure to act promptly may result in fire or electric shock.

23. The machine operates using a low-voltage control for the high-voltage power switch. When the switch is turned off, the machine is not completely disconnected from the power grid. To fully disconnect it from the power grid, the power plug must be unplugged. The machine is Class I equipment, and the ground wire must be securely connected to a power outlet with protective grounding.

1 - Welcome

Thank you for trusting us by purchasing our wireless microphone system. Our highly skilled R&D team, experienced production team, and dedicated technical support team ensure that our products perform reliably and stably in various environments, providing you with an excellent user experience. To maximize the efficiency of the equipment and bring you the best experience.

Please read this manual carefully.

1.1 Summary

Designed for professional audio applications, this system delivers crystal-clear sound, stable signal transmission, and user-friendly operation for performances, conferences, and events.

With its high-quality transmission, low latency, and secure frequency stability, the Aeroline Duet ensures consistent performance, even in demanding environments.

1.2 Product overview

a) **Designed for indoor use only**
b) **Number of channels:** 2
c) **Audio Output:** Balanced XLR / Mixed Output
d) **Display Type:** LCD
e) **Operating Distance:** >80 metres (open area without interference or obstructions)
f) **Operating Temperature:** -10°C to 50°C
g) **RF Frequency Range:**
   863-865 MHz Model : 2 Channels x 20 frequencies.
   600-624 MHz Model : 2 Channels x 100 frequencies.
   694–703 MHz / 803–806 MHz Model: 2 Channels × 42 Frequencies.
i) **RF Frequency Accuracy:** ±20PPM

1.3 Receiver functions

a) **Left and right channel frequency / setting indicators**
b) **Receive d audio signal strength indicator**
c) **Wireless signal strength indicator**
d) **Transmitter** (handheld microphone) **battery level indicator**
e) **Mute indicator** (no signal, transmitter off, etc.)
f) **High-frequency system operation indicator**
g) **Channel decrement / lock button** (left channel, controls all buttons)
h) **Channel increment / sync button**
i) **Function button**
j) **Volume / channel adjustment buttons**
k) **Long-press "Lock" button** (~3 seconds) **to lock/unlock all receiver buttons**

1.4 Receiver functions

This manual provides the basic information for the proper installation and use of the equipment and does not cover all the conditions that may arise in the actual project. For more information, please visit our website or contact our technical support, system installation personnel or agents. Please take care of the sales order or invoice for your purchase of this equipment. You need to show the credentials when the product is guaranteed.

1.5 Warning symbol



Important operation or special notes.



Risk of electrical shock.

2 - Installation

2.1 Check out of the box

When opening the packaging, check the equipment for any transportation damage. If any damage is found, inform the supplier immediately, as only you have the right to request compensation for shipping-related damage. Retain the packaging as evidence for the shipping inspection.

It is recommended to keep all packaging materials for future transportation of the equipment. Avoid transporting the equipment without an outer package to prevent potential damage.

2.2 Packing List

Aeroline Duet H

Receiver Unit	1 pc	Microphone	2 pcs
User Manual	1 pc		
Power Adapter	1 pc		
Antenna	2 pcs		
Rubber Feet	4 pcs		

Aeroline Duet B

Receiver Unit	1 pc	Beltpack Transmitter	2 pcs
User Manual	1 pc	Headset Microphone	2 pcs
Power Adapter	1 pc	Lapel Microphone	2 pcs
Antenna	2 pcs	Instrument Cable	2 pcs
Rubber Feet	4 pcs		

2.3 Installation preparation

Warning: Before installation, please confirm that you see and read the safety warning.

Before installation make sure that the power cord is not connected to the power outlet. The power switch is turned off. The volume knob is completely closed (counterclockwise to the limit).

2.4 Power cord

The grounding end of the power cord must be grounded, otherwise there is a risk of electric shock!

The power cord must have sufficient current capacity, AC power supply voltage and frequency must be in range of +10% of the nominal value.

3 - Operating Instructions

Before installation, ensure the power cord is not connected to the power outlet. Ensure that the power switch is turned off, and that the volume knob is fully turned down (rotated counterclockwise to its limit).

3.1 Channel adjustment

- In an environment with multiple units, adjust frequencies based on distance.
- Adjacent devices should be set several channels apart to avoid interference.
- Keep the receiver **at least 0.5m** away from other audio/video equipment to avoid interference.
- When selecting a frequency, ensure no unwanted signals are detected on the receiver.

3.2 Pairing (infrared sync)

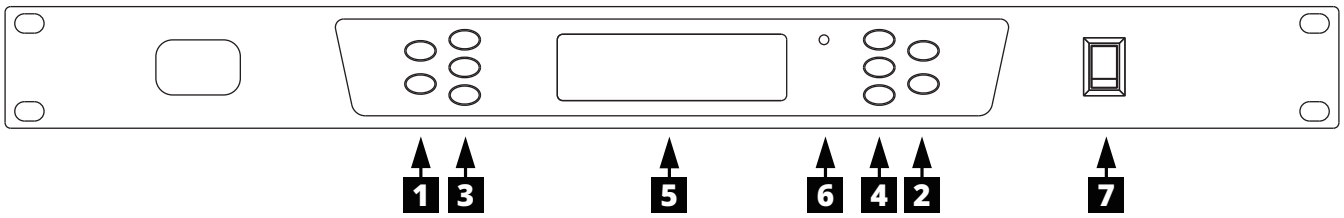
- Ensure the receiver is unlocked.
- Press the "**SYNC**" button; the receiver will display "**F--**", and the infrared **sync light** will turn on.
- Hold the microphone (transmitter) near the sync window (**3-10cm distance**) until **the light turns off.**
- If successful, the microphone's display backlight will turn on, and the receiver's signal bar will be full.
- If pairing fails, retry the process.

3.3 Additional functions

- **Battery Indicator:** When the battery icon blinks, replace the batteries soon.
- **Auto Mute Function:** If the microphone remains stationary for 3-5 seconds, it enters mute mode. Light vibrations will prevent it from muting.
- **Transmitter Frequency Matching:** After syncing, the transmitter and receiver will have identical frequencies.

4 - Receiver Front and Rear Panel

4.1 Front panel



1 Left Channel Volume Up / Down Buttons

2 Right Channel Volume Up / Down Buttons

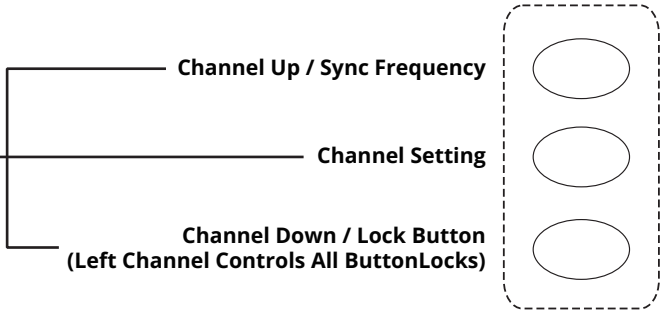
3 Left Channel Control Buttons

4 Right Channel Control Buttons

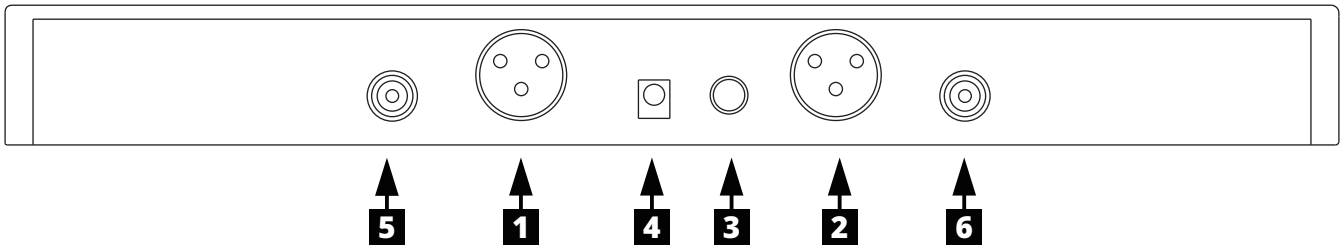
5 LCD Display Window

6 Infrared Sync Window

7 Power Switch



4.2 Rear panel



1 Right Channel XLR Balanced Audio Output

2 Left Channel XLR Balanced Audio Output

3 6.35mm Left/Right Mix Audio Output

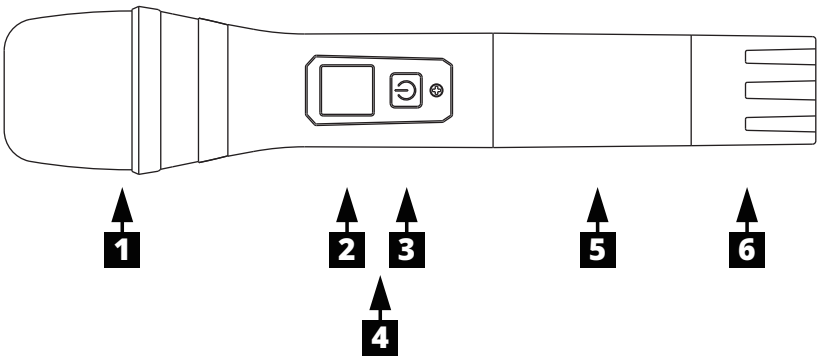
4 Power Input Connector

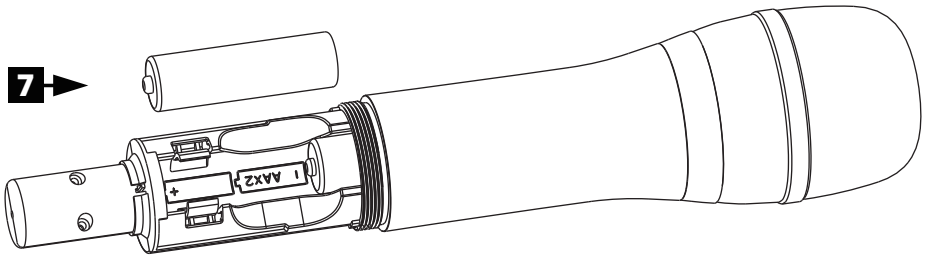
5 Right Channel Antenna Connector

6 Left Channel Antenna Connector

5 - Microphone

5.1 Instruction





1 **Mesh Grille With Internal Protective Foam**

2 **LCD Display With Backlight**

3 **Power Button**

4 **Infrared Sync Window**

5 **Lower Body Section**

6 **Antenna Section**

7 **Battery Replacement**

5.2 Manual MUTE Instruction

To MUTE the handheld microphone, short press the **Power Button**.

To UNMUTE the handheld microphone, short press the **Power Button** again.

5.3 AUTOMUTE Feature Instruction

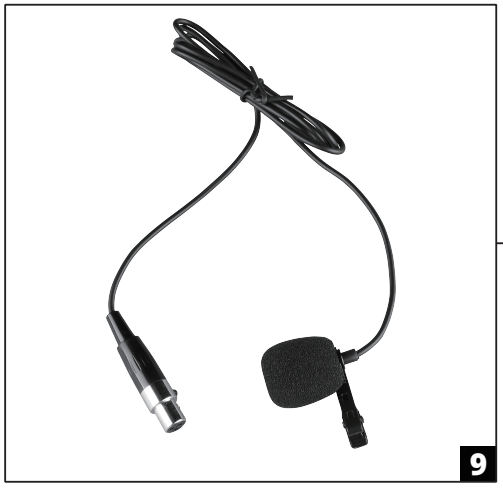
The AUTOMUTE feature allows the handheld microphone to change to a MUTE state if there is no physical movement for 8-10 seconds.

It will then unmute automatically when the mic detects any physical movement.

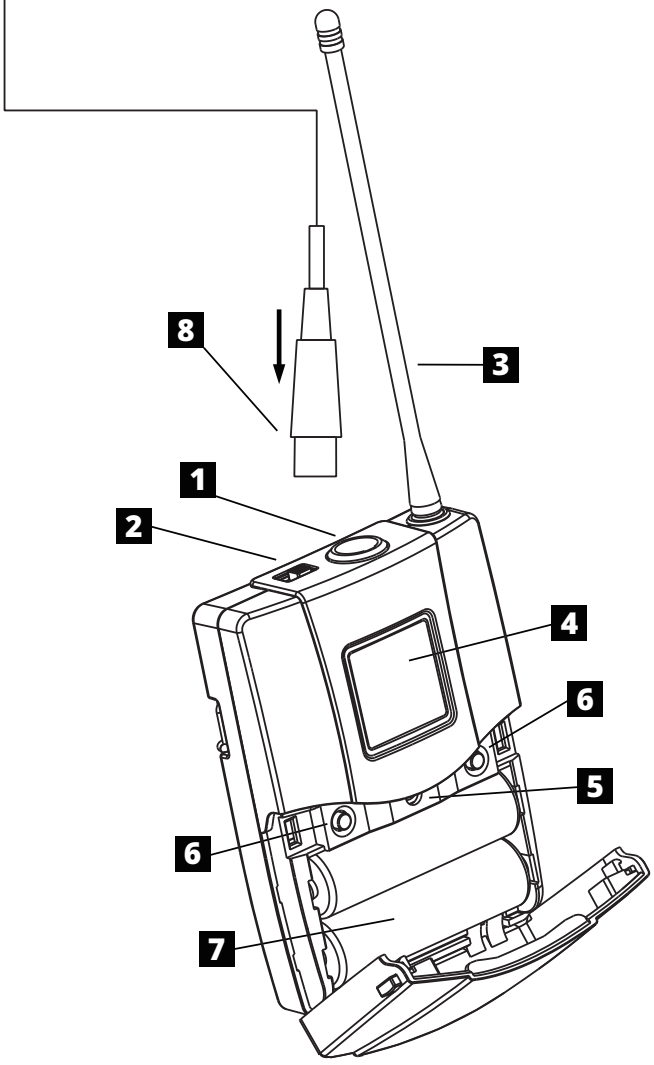
To enable the AUTOMUTE feature, press the **Power Button** 3 times consecutively.

To disable the AUTOMUTE feature, press the **Power Button** 3 times consecutively.

6 - Aeroline Duet Belt Pack







1 **Microphone Signal Input connector**

2 **Power Switch**

3 **Antenna**

4 **LCD Display**

5 **Infrared Emitting Window**

6 **Volume up and down, Power adjustment**
press down at the same time
H: High power **L:** Low power

7 **AA Battery**

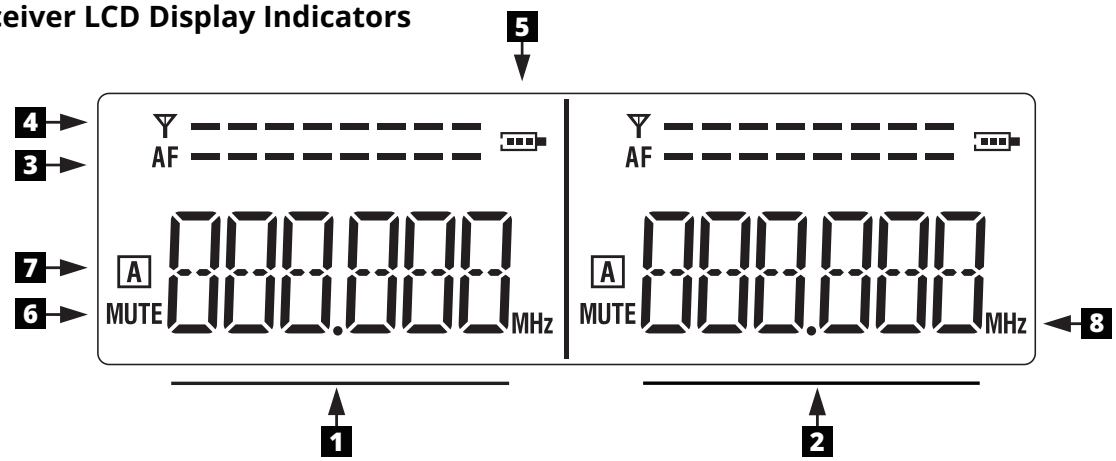
8 **Microphone Plug** (3-Pin)

9 **Lapel Microphone**

10 **Headset Microphone**

7 - LCD Display

7.1 Receiver LCD Display Indicators



1 **Left channel**
Channel / frequency / function adjustment display characters

2 **Right channel**
Channel / frequency / function adjustment display characters

3 **Audio signal strength indicator**

4 **Wireless RF signal strength indicator**

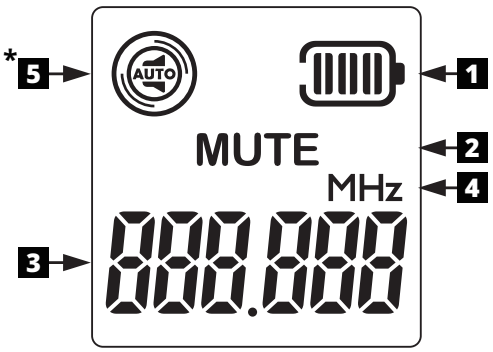
5 **Transmitter battery level** (e.g. handheld mic)

6 **Mic indicator**
(e.g. connected microphone signal; some models may display mute status)

7 **RF system operation indicator**

8 **Frequency unit (MHz)**

7.2 Handheld and Beltpack Transmitters LCD Display Indicators



1 **Battery Indicator**

2 **Mute Indicator** (MUTE)

3 **Operating Frequency** (MHz)

4 **Frequency Unit** (MHz)

5 **Automatic Mute Function**
***** Handheld Microphone ONLY

8 - Frequency and IR Sync Pairing

8.1 Adjusting Frequency and IR Sync Pairing

To ensure proper operation, the receiver and microphone must be set to the same frequency.
Follow the steps below to adjust the frequency and complete the IR Sync (infrared pairing) process.

8.2 Adjusting the Frequency on the Receiver

Before pairing, ensure the receiver is unlocked. Follow the instructions below :

1. Press the "**SET**" button. The channel indicator "**CH**" will begin **flashing**.
2. Use the "**+**" or "**-**" buttons to adjust the frequency.
3. Press "**SET**" again or wait **4 seconds** to save the setting.

8.3 IR Sync (Infrared Pairing) – Connecting the Microphone to the Receiver

Once the frequency is set, the microphone or beltpack transmitter must be paired with the receiver.

1. Ensure the receiver is **unlocked**.

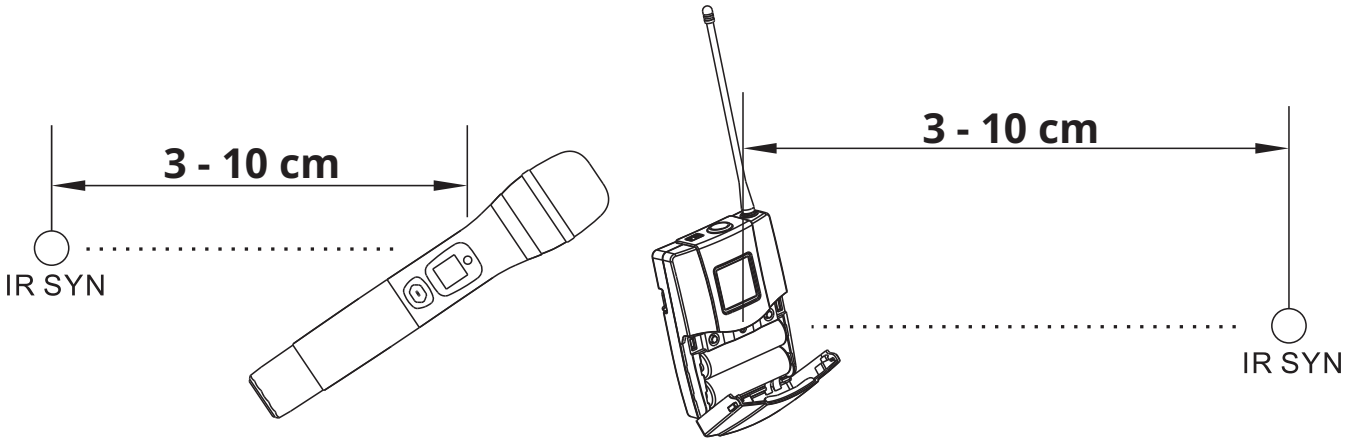
2. Press the "**SYNC**" (IR Sync) button on the receiver.
- The display will show "**F--**", and the **infrared sync light** will turn on.

3. Hold the microphone's IR sync window **3-10 cm** from the receiver's IR sync window.

4. Keep the microphone in position until the **IR sync light turns off**.

5. Verify that the receiver and microphone frequencies match.

6. Speak into the microphone and check if the "**AF**" (Audio Frequency) signal bar **moves**.
- If there is no signal, repeat the pairing process.



9 - Advanced Usage and Interference Prevention

9.1 Advanced Usage and Interference Prevention

When using multiple wireless microphone systems in the same area, it's important to optimize frequency selection and receiver placement to prevent signal interference. Follow these guidelines for the best performance.

9.2 Frequency Selection and Signal Management

1. Select frequencies carefully when using multiple systems in the same venue.
- Choose channels based on distance between devices or rooms.
- If possible, assign low or high frequency channels to nearby units.

2. Keep several frequency steps between adjacent systems.
- If interference occurs, manually adjust the frequency to an unused channel.

3. Avoid interference from other audio and video devices.
- Wireless signals can be affected by nearby audio systems, TVs, and power amplifiers.
- Keep the receiver at least 0.5 meters away from such equipment.

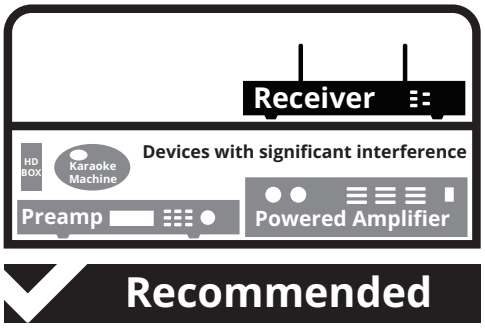
4. Monitor the receiver's wireless signal strength when adjusting channels.
- If interference is detected, do not use that frequency.
- Always select a channel with a strong, interference-free signal.

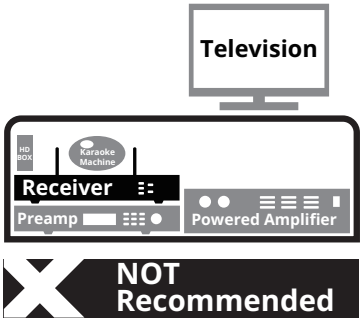
5. For large venues or long-distance operation:
- Place the receiver outside of racks or enclosures to improve signal reception.
- Use extended antennas or an antenna amplifier if the receiver and microphone are far apart or in a crowded environment.

9.3 Adjustment Guidelines

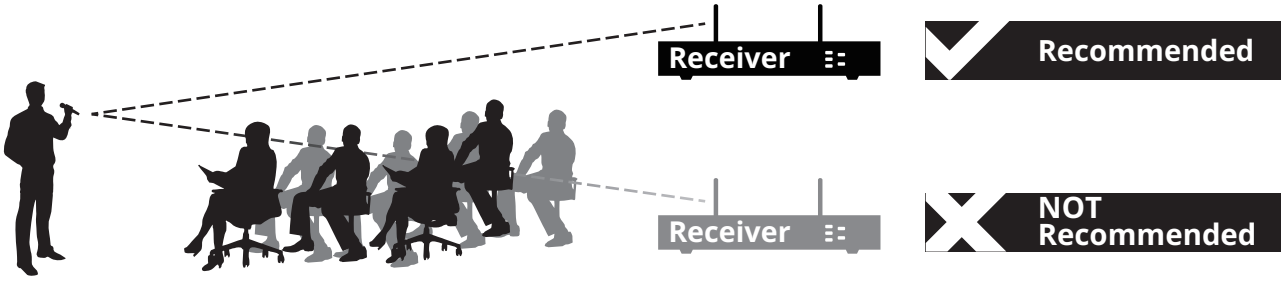
- **Adjacent receivers should be separated by at least 2 MHz.**

- **Avoid obstaacles between the microphone and the receiver.**





- **Avoiding interference sources.**
  - Televisions also produce strong electromagnetic interference.
  - Powered amplifiers also generate significant interference.



- **The receiver antenna should ideally be placed within a clear line of sight.**
  - Avoid crowds.

10 - Specifications

Specification	Value
Operating Distance	80 metres (open area without interference or obstructions)
RF Frequency Range	**863-865 MHz Model:** 2 Channels × 20 Frequencies **600-624 MHz Model:** 2 Channels × 100 Frequencies **694–703 MHz / 803–806 MHz Model:** 2 Channels × 42 Frequencies
RF Bandwidth	2 MHz / 24 MHz
RF Frequency Accuracy	± 20 PPM
Operating Temperature	10 °C to 50 °C
Audio Frequency Range	50 Hz-16 kHz (circuit section, input at 200 mV)
System Signal-to-Noise Ratio	>90 dB (circuit section, 240 mV input at max output)
Total Harmonic Distortion	<1% at 1 kHz (circuit section, 240 mV input at max output)
Receiving Mode	DQPSK
Receiver Sensitivity	-98 dBm
Display Type	LCD
Power Supply	DC 12 V / 500 - 1000 mA
Audio Output	Balanced XLR / Mixed Output
Number of Channels	2
Transmitter Specifications	
Transmission Power	10 mW
Current Consumption	<130 mA
Power Supply (NOT INCLUDED)	2 x AA 1.5 V batteries or AA NiMH rechargeable batteries.
Battery Life	Approx. 8 hours (depending on battery quality)
Transducer Type	Dynamic
Pickup Pattern	Supercardioid
Pickup Sensitivity	< -55 dB ±3 dB (0 dB = 1 V/Pa at 1 kHz)
Maximum Sound Pressure Level	> 110 dB SPL

WHARFEDALE PRO LIMITED WARRANTY

Wharfedale Pro products are warranted of manufacturing or material defects for a period of three years from the original date of purchase. In the event of malfunction, contact your authorised Wharfedale Pro dealer or distributor for information.

Please be aware that the warranty details may differ from country to country. Contact your dealer or distributor for information (available at www.wharfedalepro.com). These terms do not infringe your statutory rights.

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