QAD-4

Antenna & Power
Distribution Unit

Instruction Manual

INTRODUCTION

Thank you for purchasing this Q-Audio product, we are sure that it will serve you well for many years to come.

To optimise the performance of this product, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit. Please retain them for future reference.
This unit has been tested at the factory before being shipped to you.
To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. To prevent a fire hazard, do not expose the unit to any naked flame sources. Unplug this apparatus during lightning storms or if it is unlikely to be used for long periods of time.

The Q-Audio QAD-4 is a 1U 19" professional UHF wideband antenna splitter designed for use with up to four radio microphone receivers. Its dual 1:4 configuration supports diversity systems and is compatible with two Q-Audio QDP-1 active antennas or most BNC-connected UHF antennas. It is ideal for reducing RF interference and signal dropouts in multi-channel wireless setups.

This UHF wideband antenna splitter is engineered to support RF signal distribution to up to four wireless microphone receivers, making it well-suited for demanding multi-channel wireless audio environments. Utilising a dual 1:4 active splitter architecture, the unit accommodates up to four diversity receiver systems, each requiring two discrete RF inputs via two independent signal paths. This allows for the integration of two Q-Audio QDP-1 active directional antennas, or most other BNC-connected UHF antennas, providing broad compatibility and flexibility in system design. The splitter maintains consistent impedance matching and offers low insertion loss to preserve signal integrity across the entire UHF spectrum. By centralizing antenna distribution and reducing the need for multiple passive splitters or redundant antennae, the system significantly reduces the potential for intermodulation distortion and RF congestion. This results in enhanced frequency coordination, improved reception stability, and reduced dropout risk, making it an essential component for high-density wireless microphone deployments in live production, broadcast, and theatrical applications. It also features power distribution via DC jack.

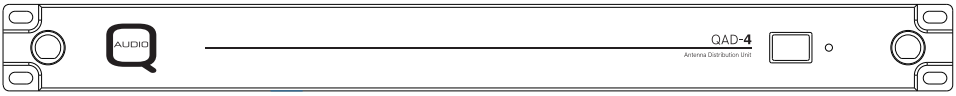
Unpacking and safety
Please unpack your new product carefully. Your new product should reach you in perfect condition. Please check that no damage has occurred during transit. If any damage is found, do not operate your unit. Please contact the retailer you purchased it from immediately. If there is any damage to the mains cable do not use the device. Always disconnect the unit from the mains supply when carrying out any cleaning of the unit.

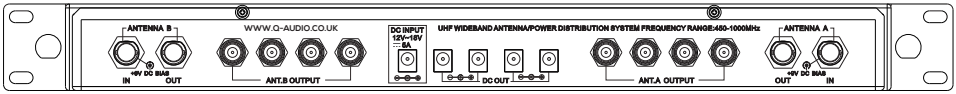
Manufacturer declarations
In compliance with the following requirements: RoHS Directive (2002/95/EU) and WEEE Directive (2002/96/EU), and Battery Directive (2006/66/EU). If this product is ever no longer functional please take it to a recycling plant for environmentally friendly disposal. Any supplied batteries can also be recycled.
CE declaration of conformity
R&TTE Directive (1999/5/EU), EMC Directive (2004/108/EU),Low Voltage Directive (2006/95/EU).
The declarations are available on application from info@q-audio.co.uk
Before putting device into operation, please observe the respective country-specific regulations.

Made in China

Due to continuous product development, specifications and appearance are subject to change.
E & O E.

PART NAMES & FUNCTIONS





1) **Power On/Off Switch**
2) **LED Power Indicator**
3) **Antenna B Input Connector**
4) **Antenna B Link Out Connector**
5) **4x Antenna B Distributed Outputs**
6) **DC Power Input Jack**
7) **4x Distributed DC Power Output Jacks**
8) **4x Antenna A Distributed Outputs**
9) **Antenna A Link Out Connector**
10) **Antenna A Input Connector**

SETUP INSTRUCTIONS

1) Connect your desired antennas to the Antenna input connectors (3) + (10) either directly or by using BNC extension cables.

2) Connect antenna signal to your wireless microphone receivers by connecting them to the Antenna Distributed Outputs (5) + (8) using the included BNC cables.

3) Connect power to your wireless microphone receivers by connecting them to the distributed DC power output jacks (7) using the included DC jack power extension cables.

4) Connect the system power to the DC power input jack (6).

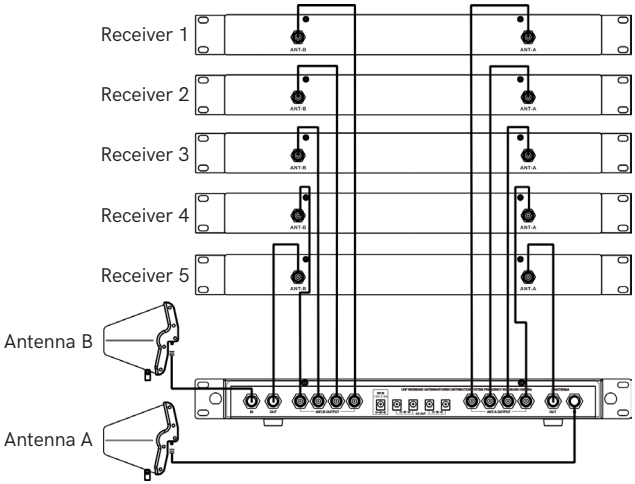
5) Turn on the system using the power on/off switch (1) and the LED power indicator will illuminate (2).

6) Turn on your wireless microphone receivers.

Optional:
Multiple Q-Audio QAD-4 units can be linked together by using the antenna link out connectors (4) + (9) on the unit that connects to the antennas. On the second unit, connect to the antenna input connectors (3) + (10). You can also use these connectors to link to a 5th wireless microphone receiver to the antennas if required.

The Q-AD4 unit is designed to be rack mountable in a standard 19" rack, occupying 1U of vertical space. If required it can be used as a free-standing device however rack mounting is recommended.

On the rack ears of the QAD-4 are punched holes where connectors for antennas can be installed.



PLEASE NOTE:
- Ensure you are using good quality BNC cables to avoid signal loss. Cables are included, however Q-Audio offers a range of various length BNC cables that are purposely designed to work perfectly with the QAD-4.

- Ensure that the centre pin of the BNC cable is not touching the outside metal casing of the connector to avoid short circuiting and damage to equipment.

SPECIFICATIONS

Bandwidth: UHF 450 - 1000 MHz

Antenna In/Link Out Connections: BNC

Antenna Inputs: 2

Antenna Link: 2

Antenna Outputs: 8

Antenna Power (via Antenna Input): 9v 100mA

Power Input Connection: 1x 12v DC Jack

Power Output Connections: 4x 12v DC Jack

PLEASE NOTE:
- Power from the DC distributed power outputs voltage is equal to the DC power input voltage.
- 12V DC power is required for the system to operate.
- Antenna inputs also provide 9V DC power to the connected antennas.
- 50 Ohm BNC cabling should be used to avoid signal loss. The longer the cable, the more loss you will experience. Larger diameter antenna cable helps to prevent signal loss.
- Passive antennas should not be connected with more than 5m of cable.
- Active antennas should be connected with a minimum of 5m of cable and a maximum of 20m.
- It is recommended to keep antenna extension cables as short as possible within the guidelines above.

Box Contents

1x QAD-4 Antenna Distribution Unit

1x DC Power Adapter

4x 50cm DC Power Extension Cables

8x 50cm BNC Extension Cables

2x 5m BNC Extension Cables

1x User Manual

www.q-audio.co.uk