ANTENNA
DISTRIBUTION SYSTEM

AD-4S

Erthpot Antenna distribution system user guide.

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CAUTION

Attention: For your safety, it is imperative to thoroughly review this user manual before initiating the equipment.

1. Upon receipt of this product, carefully unpack the carton and verify that all components are present.

2. Prior to initial use, inspect for any damage that may have occurred during transportation. Should any damage be detected, refrain from using the equipment and promptly contact your dealer for assistance.

3. Retain the original carton and packaging materials for potential future use, especially if the equipment requires return to the supplier.

4. To ensure continued safe operation and optimal performance, it is essential to adhere to the safety instructions and warning notes outlined in this manual.

5. Note that user modifications to the equipment may void the warranty and result in damages for which the manufacturer cannot be held liable.

Important: The manufacturer shall not be held responsible for any consequential damages resulting from failure to adhere to this manual or unauthorized modifications made to the equipment.

Operating Guidelines

1. Avoid contact between the power cable and other cables. Exercise caution when handling the power cable and mains voltage connections.

2. Do not remove warning or informational labels from the equipment.

3. Refrain from opening or altering the equipment.

4. Avoid connecting the equipment to a dimmer-pack.

5. Avoid frequent power cycling, as it may reduce the system's lifespan.

6. Limit usage of the equipment to indoor environments only.

7. Protect the equipment from exposure to flammable sources, liquids, or gases.

8. Disconnect the power from the mains when the equipment is not in use or during cleaning. Handle the power cable by the plug and refrain from pulling it out forcefully.

9. Ensure the power cable remains undamaged and periodically inspect both the equipment and power cable.

10. In the event of equipment damage or drop, disconnect the mains power immediately and have the equipment inspected by a qualified engineer before further operation.

11. Following exposure to significant temperature fluctuations, allow the equipment to reach room temperature before powering it on to prevent condensation-related damage.

12. If the equipment malfunctions, discontinue use immediately, securely pack it (preferably in the original packing material), and return it to your dealer for servicing.

13. Repairs, servicing, and power connections must be carried out by a authorised Erthpot technician as this unit contains no user-serviceable parts.

14. The antenna of the receiver should be kept away from any metal.

15. Frequency should be changed under the following situations:
1) When receiving external frequency interference.
2) When current frequency is restricted and can not be used.
3) To prevent inter-interference when using multisystem

16. The receiver's audio SQ level should not be set at a too high level,or it will cause distortion to mixer. On the other hand, if the SQ level is set at a too low level, it will reduce the S/N ration and increase noise. The proper way to set SQ level is: firstly, set the mixer's SQ level to normal level, such as 0 dB, then input the highest sound pressure to the microphone, such as loudly speak to the microphone then adjust the SQ level to the point which provides the loudest sound with no distortion, and then this is the very level to provide the best performance.

17. After using the transmitter, please turn off the power. If it won't be used for a long time, the batteries should be removed.

Operational Guidelines:
Failure to adhere to the instructions provided in this manual may result in damage to the equipment, voiding the warranty and potentially causing harm to individuals or property.

AD-4S

UHF Antenna Distribution System

OVERVIEW

The AD4S by Erthpot is a game-changer for those looking to expand their wireless microphone setups. This four-way active high-performance antenna distribution system simplifies the process of distributing signals from a single pair of antennas to multiple receivers. With AD4S, you can now share one pair of diversity antennas with up to four Arche Wireless receivers (Single or Dual), effectively reducing signal dropouts that are often caused by multiple antennas interfering with signal reception.

One of the key features of AD4S is its four internal power supplies, each capable of providing power of 12V/800mA to all the receivers connected to it. This ensures that all your receivers receive a consistent and reliable power supply, further enhancing the performance of your wireless microphone setup. Say goodbye to signal dropouts and hello to seamless audio transmission with the AD4S antenna distribution system.

FEATURES

- Provides diversity antenna distribution to four single or dual receivers
- Wide band frequency band allows stable RF signal reliability
- Provides DC power distribution for four Arche Wireless receivers
- RF Signal Output Gain of 3dB to compensate for insertion loss
- Comes bundled with all necessary RF & power cables
- Full Metal housing unit with matte paint finish

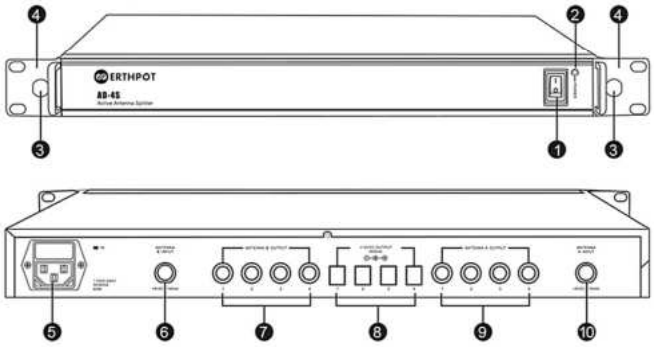
SUPPLIED ACCESSORIES

(2) - Front mounting BNC antenna cable (26 inches)
(8) - BNC cables (22 inches)
(4) - Non-locking DC power card (24 inches)
(1) - AC power cord (1.5 mtr.)

POWER SUPPLY CONNECTION

Interna 100-240V, 50/60Hz switch type power supply can automatically adjust to proper voltage. No need to do special setup. A standard IEC-3200 cable is used.

SYSTEM CONTROL AND FUNCTIONS



1. Power Switch: press to turn on the power then press again to turn off the power.

2. Indicator Light: the power supply indicator light. The light would be on when the power is on.

3. Antenna Installation Connector: Can install the antenna to the round hole of the installation rack and can connect the antenna to the front panel.

4. Rack Installation Suit: Can install the receiver to 19" rack.

5. Power Input Socket : Standard IEC socket. It is able to automatically operate with AC current of 100~240V 50/60Hz.

6. The B Input Socket of The Antenna: the connector of the antenna divider and it can be used to directly connect antenna, or use an antenna extend cable to extend the length. The BNC connector can provide DC 8V power, can be used to power up an active antenna or any antenna amplifier in which power is not higher than 150mA.

7. The Antenna B Output Socket of the antenna divider: 4 sets of output connectors are directly connected to wireless receivers. Each set should be separately connected to antenna connector.

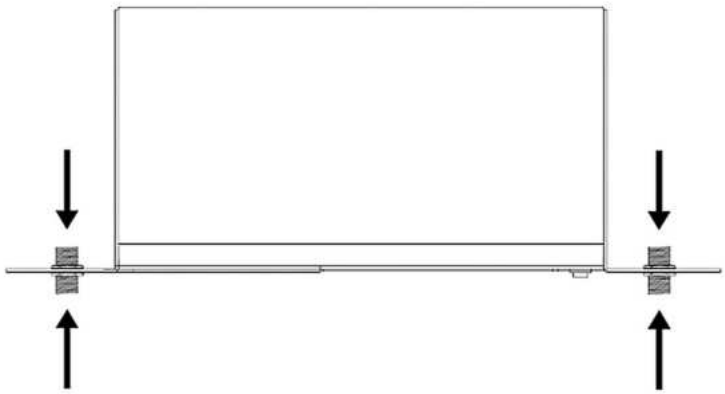
8. 4 Sets of Power Supplies: Each set can provide DC power of 12V/800mA. Supplies electricity to 4 Arche wireless receivers.

9. The Antenna A output Socket of the antenna divider: 4 sets of output connectors are directly connected to wireless receiver. Each set should be separately connected to a antenna connector.

10. The A Input Socket of the antenna: the connector of the antenna divider and it can be used to directly connect antenna, or use an antenna extend cable to extend the length. The BNC connector can provide DC 8V power, can be used to power up active antenna or any antenna amplifier in which power is not higher than 150mA

SYSTEM INSTALLATION

INSTALLING FRONT-MOUNTED ANTENNAE



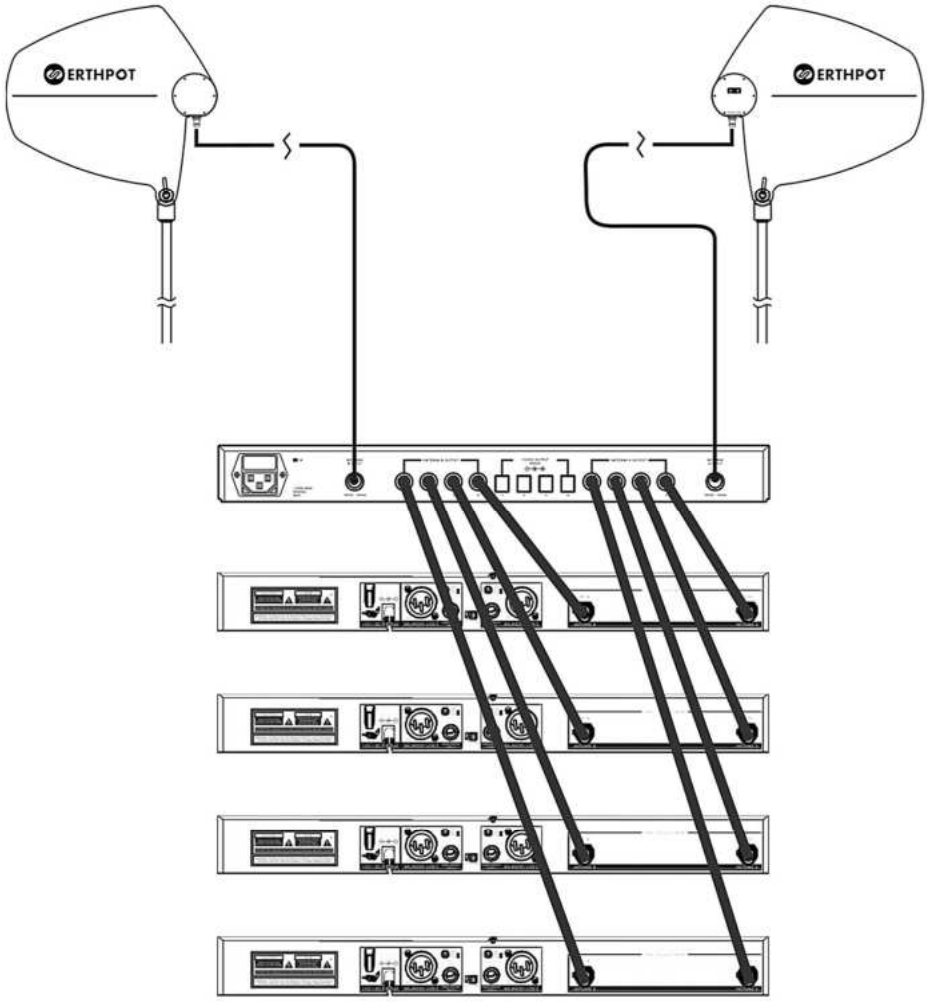
The AD4S is designed to accommodate front-mounted antennas, which enhances the RF performance of the system by relocating the antennas to the front of the rack. When the unit is installed in a rack, antennas should be positioned either at the front or remotely.

1. Secure the bulkhead adapters by inserting them through the holes in each bracket and using the provided hardware to fasten them from both sides.

2. Establish connections by attaching the provided antenna cables to the receiver antenna inputs and adapters.

3. Mount the antennas onto the bulkhead adapters that protrude through the front panel of the unit.

ANTENNA DISTRIBUTION SETUP WITH REMOTE ANTENNAE



1. Utilize Erthpot's low-loss, 50 Ω coaxial cables to establish connections between the AD4S and the receivers. Connect the RF output ports on the AD4S to the corresponding antenna inputs on each receiver, covering channels 1 through 4, A, and B. Additionally, utilize the cascade ports to link a fifth receiver.

2. Connect the AD4S to a power outlet using the provided power cable.

3. For linking receivers together and powering them, employ power output cables to daisy-chain the units. Start by connecting the power output connector of the AD4S to the power input
connector of one receiver and repeat this process for the remaining receivers. Finally, connect the power input of the unit to a power supply.

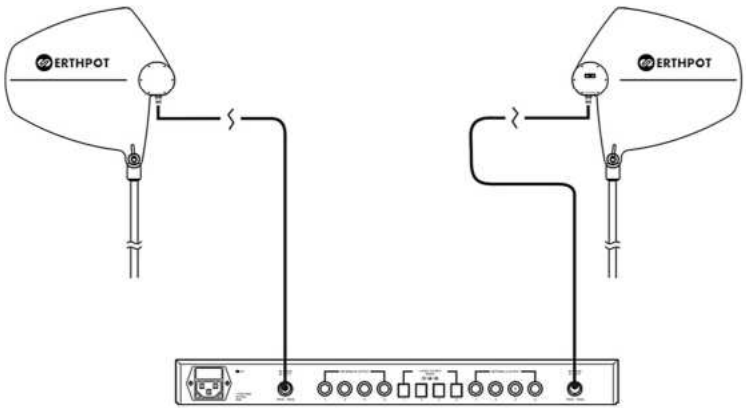
AD49-W

Active Wide Band Directional Antenna

AD49-W is a wide band directional antenna (470 - 900 MHz) designed to be used with professional wireless microphones. Its in built RF amplifier allows signal gain of up to 13 dB to compensate for long cable runs. The specifically designed antenna's midrib and side vein receptors allow a higher polarization of 6dBi towards its cardioid pick up coverage. The AD49-W can be fixed to the microphone stand or suspended from the ceiling, or it can be fixed to the wall using the integrated rotatable stand. The lightweight metal structure allows rugged use over indoor or outdoor working conditions.

INSTALLATION

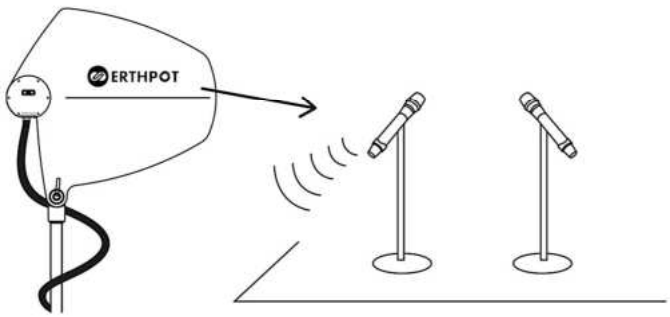
· The antenna can be connected to the receiver or antenna distributor system using any 50 ohm low-loss BNC cable.
- The antenna only operates with receivers or distribution systems that provide 10–15 V DC bias.
- Always aim the antennae towards the intended coverage area.
- Avoid sharp bends or rolls in the antenna cables
- The Antenna is not designed or tested for permanent outdoor installations. Please contact Erthpot team to know more recommendations and caution for such scenarios



GAIN SETTING RECOMMENDATIONS

For reliable operations always use Erthpot's 50 ohm low-loss antenna cables ranging from 2 to 100 feet in length. The gain setting only compensates for loss in cable transmission. Gain adjustment does not affects the coverage or RF signal strength of your wireless receivers.

For cable length up to 25ft - +5dB
For cable length up to 100 Ft - + 13dB



ANTENNA PLACEMENT & USE

When fixing the antenna, pay attention to the following:
· The antenna and receiver must use the same frequency band.
· The antennas should be fixed at least 1.2 meters away from each other.
· Keep the antenna away from sources of interference (such as large metal objects).
· Adjust the antenna position so that there are no obstacles between the antenna and the transmitter.

Important Note: Before use, perform a walking field test to check the signal coverage effect.Experiment with various placement effects of the antenna to find the best placement. "Blind spots" should be marked according to the actual situation and the artist should be reminded to avoid these areas.

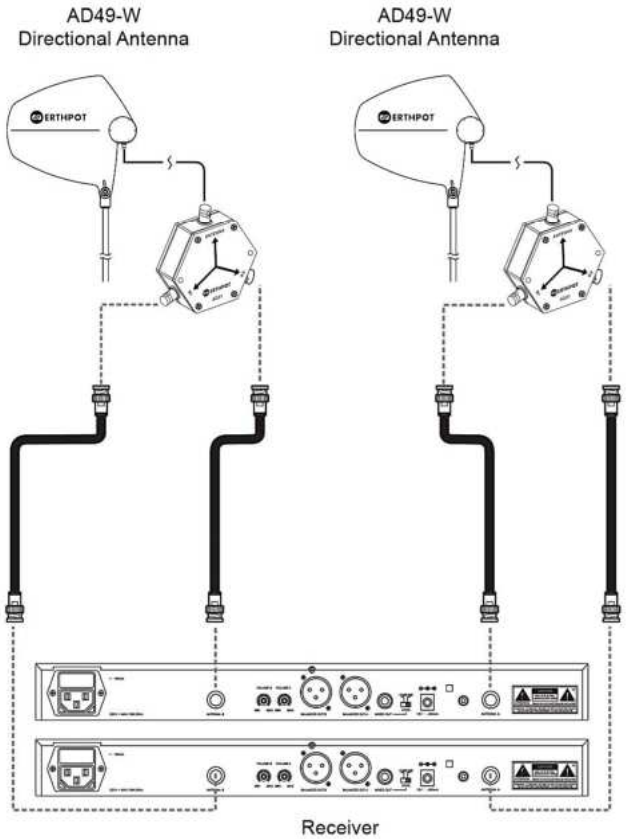
OPTIONAL ACCESSORIES

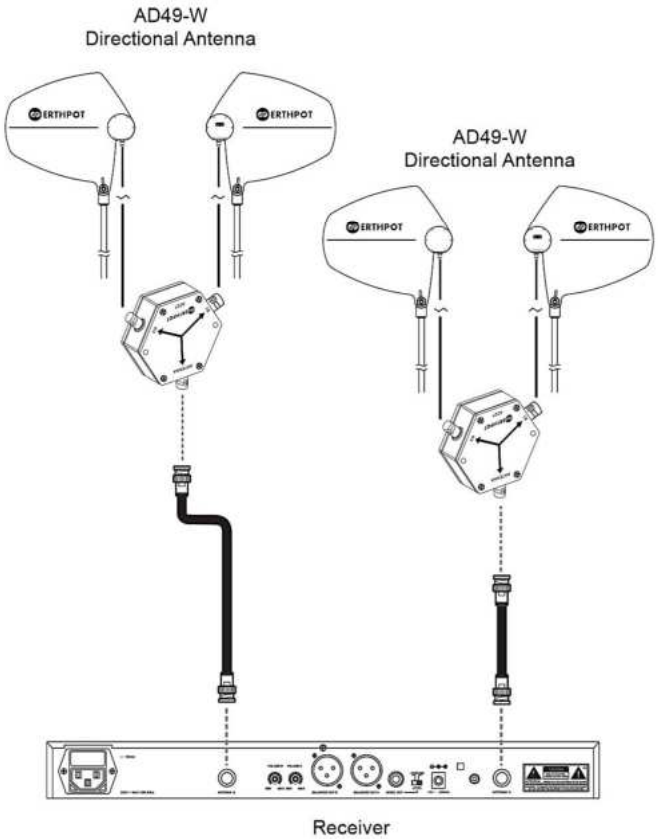
AD-21

Antenna Divider/HUB

AD21 is a two way passive antenna splitter/ combiner compatible with Erthpot's Arche Wireless Systems. This handy device can split an incoming signal into two outgoing signals, or it can combine two incoming signals into one signal, giving you even more flexibility and options for improving your signal strength.

INSTALLATION





TECHNICAL SPECIFICATIONS - AD4S

Frequency Range:	470 — 900 MHz
Gain of Output:	0 dB, ±3 dB(A Typical)
Input Impedance:	50Ω (A Typical)
Output Impedance:	50Ω (A Typical)
Power Supply of Antenna:	+8V, 150mA
Power Supply of Receiver:	+12V DC, 800mA
Power Supply:	AC 100-240V, 50/60 Hz
Dimension (mm):	410(W) x 206(H) x 43(H)
Weight:	About 2.5 Kg

LICENSING INFORMATION

Please be aware that a ministerial license may be required to operate this equipment in certain regions. It is advisable to consult your national authority to determine any necessary licensing requirements. Any changes or modifications made to the equipment without explicit approval from Erthpot Electronics Pvt. Ltd. could invalidate your authority to operate the equipment.

The responsibility for licensing Erthpot's Antenna Distribution system lies with the user. Licensability is contingent upon the user's classification, application, and selected frequency. Erthpot strongly recommends that users contact the appropriate telecommunications authority to ensure proper licensing procedures are followed before selecting and ordering frequencies.

Note: This radio equipment is designed for use in musical professional entertainment and similar applications. It may operate on frequencies that are not authorized in your region. Please contact your national authority to obtain information on authorized frequencies and RF power levels for wireless microphone products.

Erthpot warrants your product against all defects and factory errors when purchased.

Erthpot stands behind the quality of its products, offering a generous 3-year warranty from the date of retail purchase. During this period, should any defects arise, Erthpot is committed to providing optimal solutions, which include repairing the product with genuine spare parts or replacing it with an equivalent new product*

ERTHPOT ELECTRONICS PRIVATE LIMITED
A - 164, A Block, Noida Sector 63, Gautam Buddha Nagar
Uttar Pradesh Pin Code: 201301
info@erthpot.com

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