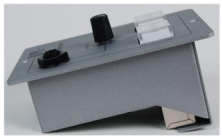
D and R AXUM Studio Remote Mic Breakout and Headphone Amplifier



# D and R AXUM Studio Remote Mic Breakout and Headphone Amplifier User Manual



Contents



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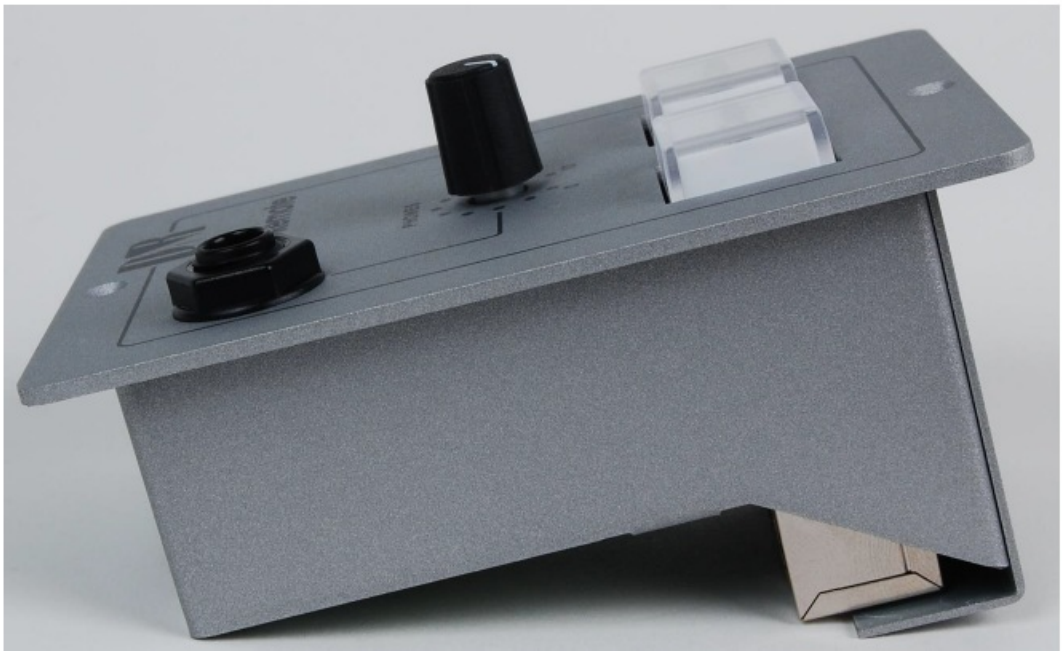


**Operational & Service Manual Studio Remote 1.09**

Dear Customer,

- Thank you for choosing the Studio Remote and headphones amplifier.
- The Studio Remote is designed by specialists in the field of radio broadcast and is intended to be used together with the broadcast consoles of D&R.
- This time you are not faced with a huge manual because it is simply not necessary because of the natural recognition of all functions on the user interface. All functions are self-explanatory and you will certainly appreciate the ergonomics of this design. No digital layering just direct access to all relevant functions, as we think it should be in daily practice
- We always value suggestions from our clients, and we would therefore be grateful if you could send us your comments and/or suggestions, once you have become familiar with your Studio remote-Unit mk4. We will certainly learn from your comments, and we will very much appreciate the effort and time it will take for you to communicate your ideas and suggestions.
- We are confident that you will be using the Studio Remote for many years to come, and wish you a lot of success.
  With kind regards,

The Studio Remote Unit is designed to be the remote and communication interface between the mixing console and the announcer or guest.
It has a built in headphone amp and 2 remote switches with RED/GREEN LED indication. The Studio Remote is the perfect solution for a remote headphone amplifier.

**CHOUGH**
When pushing this button the channel to which this Studio remote unit is connected will be muted (to be able to cough).

**COM**

When the COM button is pushed, now also the channel to which this Studio remote unit is connected will be muted. But at the same time the CUE switch in that channel will be activated to communicate with the engineer at the mixing console.


This unit can be connected directly to the D&R AXUM / AXITE / AURON / AIRLAB / AIRENCE / AIRLITE. There are 3 models to choose from that only differ in connectors on the back.

**AXUM | AXITE |AURON**

## REMOTE/SIGNALLING IN MIC MODE.

This useful feature has five important functions:

1. COUGH Switch for Cough only.
2. COM switch for cough + communication.
3. Mic-On Red Light indication.
4. Direct Mic Connection, XLR to RJ 45
5. Headphones Amplifier is switchable between A and B


A shielded cat-5 cable has to be connected between the Studio Remote and the mixing consoles Mic-input channel that needs communication. Together with the remote control also the Mic-input is directly connected. Using the push-button during broadcast, the announcer can temporarily mute the microphone in order to cough (where the name comes from). When COMM is activated his microphone will be routed to the Cue system, in order to give her/him the opportunity to communicate with the engineer/producer.

**Wiring for the D&R AXUM**
The Audio-input RJ45 of the Studio remote Unit needs to be wired to the Axum or AXITE. The cat5 cable can be connected directly to the CRM card of the AXUM/AXITE. In this way both CRM and Studio signal is available and can be selected with the toggle switch in-between the Pushbuttons underneath the front panel. The Audio-Input-thru RJ45 can be used to connect more Studio remote-Units to the same Audio Input (parallel).
Always use shielded cat5 cable to prevent hum. The shield is also ground of the signal.

**Power-Jack:**
Connect the external power-supply (+ 9 to 12 volt) to the Power-Jack connector.
Be careful, only use the standard D&R Studio Remote power-supply that is part of the delivery. When in doubt ask your local D&R dealer or a qualified technician.
Do not connect a wrong or damage power-supply to the Studio Remote to prevent you from electric shocks.
Always use a Class II power supply (without earth pin, double isolated).

## AIRLAB | AIRMIX

REMOTE/SIGNALLING IN MIC MODE. This useful feature has three important functions:

1. Remote Switch for Cough
2. Remote switch for Talkback or communication
3. Headphones Amplifier.

Both switches can be connected to one channel of the Airlab/Airmix. For more details on the functionality please read the
Airlab/Airmix manual.
The Audio-jack connector of the Studio remote Unit need to be wired to the master of the Airmix/Airlab, Guest or Announcer outputs or whatever suits your purpose mostly. The volume of this signal can now be adjusted with the potentiometer on the front of the remote. A wiring schematic will be shown in the specification section of this manual.
Note that the Airlab only has one remote input and output!


**Power-Jack:**
Connect the external power supply (+ 9 to 12 volt) to the Power-Jack connector.
Be careful, only use the standard D&R Studio remote-unit power-supply that is part of the delivery. When in doubt ask your local D&R dealer or a qualified technician.
Do not connect a wrong or damaged power supply to the Studio remote-Unit to prevent you from electric shocks. Always use a Class II power supply (without earth pin, double isolated).

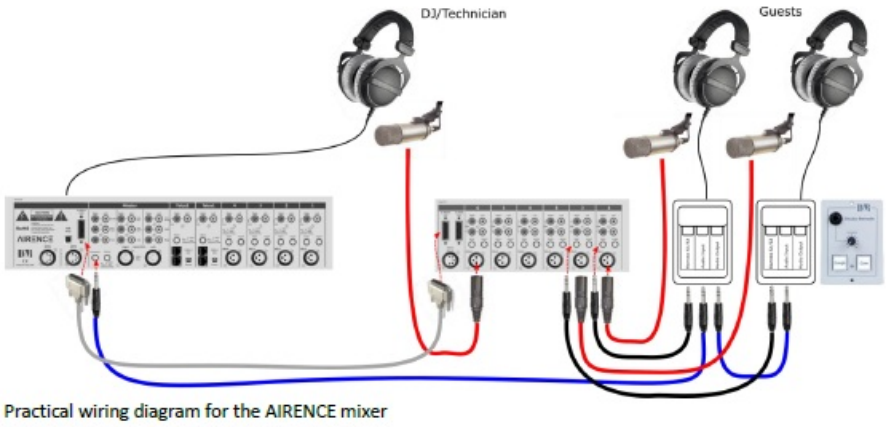
**AIRENCE | AIRLITE | AIRMATE**
REMOTE/SIGNALLING IN MIC MODE. This useful feature has three important functions:


1. Remote Switch for Cough
2. Remote switch for Talkback or communication.
3. Headphones Amplifier.

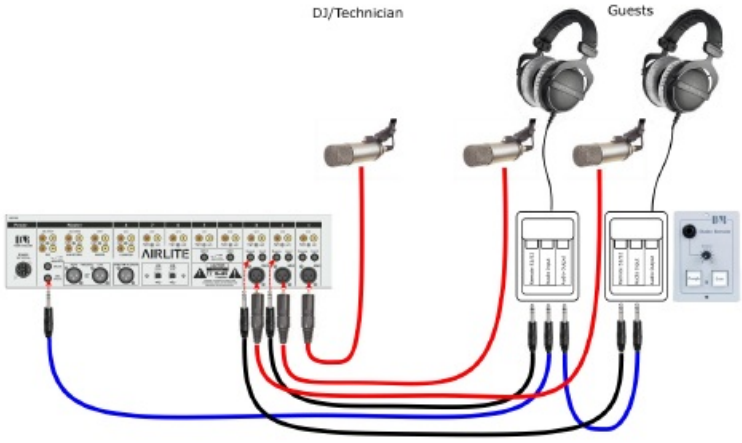
The Audio-jack input connector of the Studio remote unit need to be wired to the master of the Airence/Airlite, Guest or Announcer outputs or whatever suits your purpose mostly. The volume of this signal can now be adjusted with the potentiometer on the front of the remote.
The audio-jack output connector is connected to the audio-jack input connector for feeding through (looping) the

audio signal.
The S1/S2 jack connector needs to be wired to the channel (Remote) of which you want to mute (cough) the mic input. Use a balanced jack (TRS) cable for all connections.
A wiring schematic will be shown in the specification section of this manual.

**Power-Jack:**
Connect the external power-supply (+ 9 to 12 volt) to the Power-Jack connector.
Be careful, only use the standard D&R Studio remote-Unit power-supply that is part of the delivery. When in doubt ask your local D&R dealer or a qualified technician.
Do not connect a wrong or damaged power-supply to the Studio remote-Unit to prevent you from electric shocks.
Always use a Class II power supply (without earth pin, double isolated).



Practical wiring diagram for the AIRENCE mixer



Practical wiring diagram for the AIRLITE mixer

## TECHNICAL DETAILS OF CONNECTORS AND LEVELS

| **Phones Output (Stereo Jack, front)** | | |
|---|---|---|
| Tip | Phones Left | > 16 Ohm |
| Ring | Phones Right | > 16 Ohm |
| Sleeve | GND | |
| *150mW in to 16 Ohm 75mW in to 32 Ohm*<br>*45mW in to 64 Ohm* | | |

| **Audio input (RJ45 or Stereo Jack) on the back of the PCB** | | |
|---|---|---|
| Tip | Left | 10kOhm |
| Ring | Right | 10kOhm |
| Sleeve | GND | |

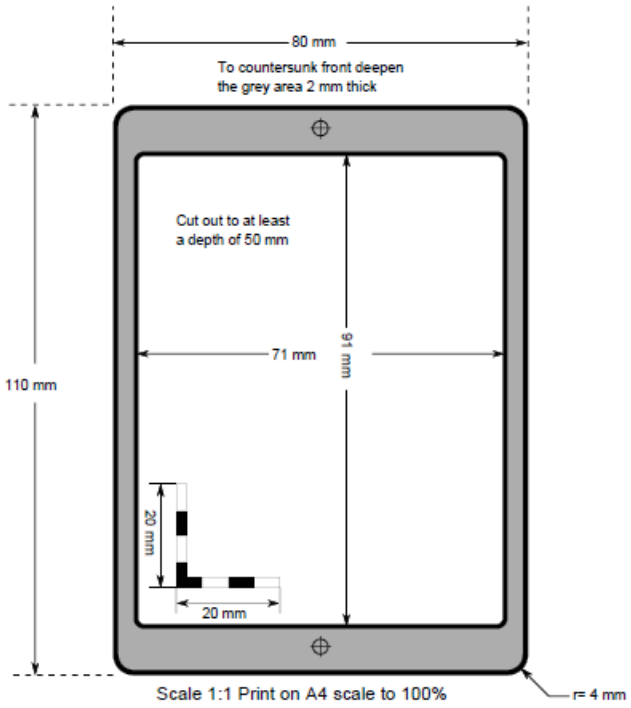
| **AXUM** \| **AXITE** | | | | | |
|---|---|---|---|---|---|
| **Head-Phones** (headphone RJ45 are connected in pa rallel.) | | | **Microphone** | | |
| **pin** | **name** | **function** | **pin** | **name** | **funtion** |
| 1 | 1A | Audio-Input 1 Left | 1 | 1A | Mic-Output In-Phase |
| 2 | 1B | Audio-Input 1 Right | 2 | 1B | Mic-Output Out-Phase |
| 3 | 2A | Audio-Input 2 Left | 3 | 2A | N.C. |
| 6 | 2B | Audio-Input 2 Right | 6 | 2B | N.C. |
| 5 | 3A | N.C. | 5 | 3A | LED 1 (TTL) |
| 4 | 3B | N.C. | 4 | 3B | Switch 1 (TTL) |
| 7 | 4A | N.C. | 7 | 4A | LED 2 (TTL) |
| 8 | 4B | N.C. | 8 | 4B | Switch 2 (TTL) |
| shielding | | Audio GND | shielding | | GND reference for for TTL |
| *Always use shielded cat5 cable to prevent hum.*<br>*The pin-out is equal to the D&R AirMax and D&R Axum RJ45 audio connections.* | | | | | |

| **AIRLAB** \| **AIRMIX** | | |
|---|---|---|
| ***Remote Jack S1 and S2 on the Back PCB*** | | |
| **pin** | **name** | **function** |
| Tip | LED | Connected to “ON”<br>Signalling (TTL) |
| Ring | Switch | Connected to Com switch<br>(TTL) |
| Sleeve | GND | Reference for TTL |

| **AIRENCE** \| **AIRLITE** \|**AIRMATE** | | |
|---|---|---|
| ***Remote Jack S1/S2 on the Back PCB*** | | |
| **Pin** | **name** | **function** |
| Tip | Com | Connect to Com switch<br>(TTL) |
| Ring | Cough | Connect to Cough switch<br>(TTL) |
| Sleeve | GND | Reference for TTL |

| | | |
|---|---|---|
| **Power Jack (back side)**<br><br>9V DC 100mA<br>Class II power (without earth pin) | | |
| Centre pin | +9V | 9 to 12 V DC |
| Ring | GND | |
| *The Power Jack is protect against reverse polarity connection.* | | |

## Cutout Template




## EG Declaration of Conformity

- We, D&R Electronica B.V.
- Rijnkade 15b
- 1382S Weesp
- Netherlands
- Herewith take the sole responsibility to confirm that this product:
- Type designation : Studio Remote (2024)
- Kind of equipment : Remote and Headphones-Amplifier
- Which refers to this declaration, is in accordance with the following standards or standardized documents:
- EMC Directive 89/336/EEG, norm EN55103-1 (E2) EN55103-2 (E2)
- Low Voltage Directive 73/23/EEG, norm EN60065

Duco de Rijk MD
D&R Electronica B.V.
January 2024 Weesp

## Disclaimer

- Due to a policy of continuous product improvement, D&R Electronica B.V reserves the right to change specifications, appearance and performance without prior notice.
  Since the use of this information, and the conditions by which the products are used are beyond the control of D&R Electronica B.V, it is the obligation of the owner and/or the equipment operator to determine the correct and safe selection, settings and conditions of use of the equipment and products.
- To the extent that the law permits, any liability which may be incurred as a result of the use or future use of a product manufactured or sold by D&R Electronica B.V is limited to the cost of repairing or replacing the failed product or component at the discretion of D&R Electronica B.V, either within, or outside of warranty period, and does not extend to any loss or damage which may be caused as a consequence of misuse or failure of the equipment or products.
- D&R Electronica B.V shall not in any event be liable for economic loss of profits including without limitation any incidental or consequential damage, expenses or other damages arising out of the use or inability to use the product and/or software even if D&R has been advised of the possibility of such a damage or for any claim by another party.
- You agree to indemnify, hold harmless, and defend D&R Electronica B.V., its parent, and their licensors, suppliers, officers, directors, employees, agents, affiliates, subsidiaries (collectively “Indemnified Parties”) from and against any and all liability incurred by or made against the Indemnified Parties in connection with any claim arising from or related to your use.

## Frequently Asked Questions

- **Q: Can I use a different power supply with the Studio Remote?**
  A: No, it is recommended to use only the standard D&R Studio Remote power supply to prevent electrical shocks. Always consult a qualified technician for any doubts.
- **Q: How do I connect the Studio Remote to my mixer?**
  A: Use a shielded Cat-5 cable to connect the Studio Remote to the mixer’s mic input channel for communication purposes.

## Documents / Resources

| | |
|---|---|
|   | D and R AXUM Studio Remote Mic Breakout and Headphone Amplifier [pdf] User Manual AXUM, AXITE, AIRLAB, AIRENCE, AIRLITE, AIRMATE, AXUM Studio Remote Mic Breakout a nd Headphone Amplifier, AXUM Studio, Remote Mic Breakout and Headphone Amplifier, Break out and Headphone Amplifier, Headphone Amplifier, Amplifier |

## References

- D&R Broadcast Mixing Consoles | Radio consoles
- D&R Broadcast Mixing Consoles | Radio consoles
- User Manual