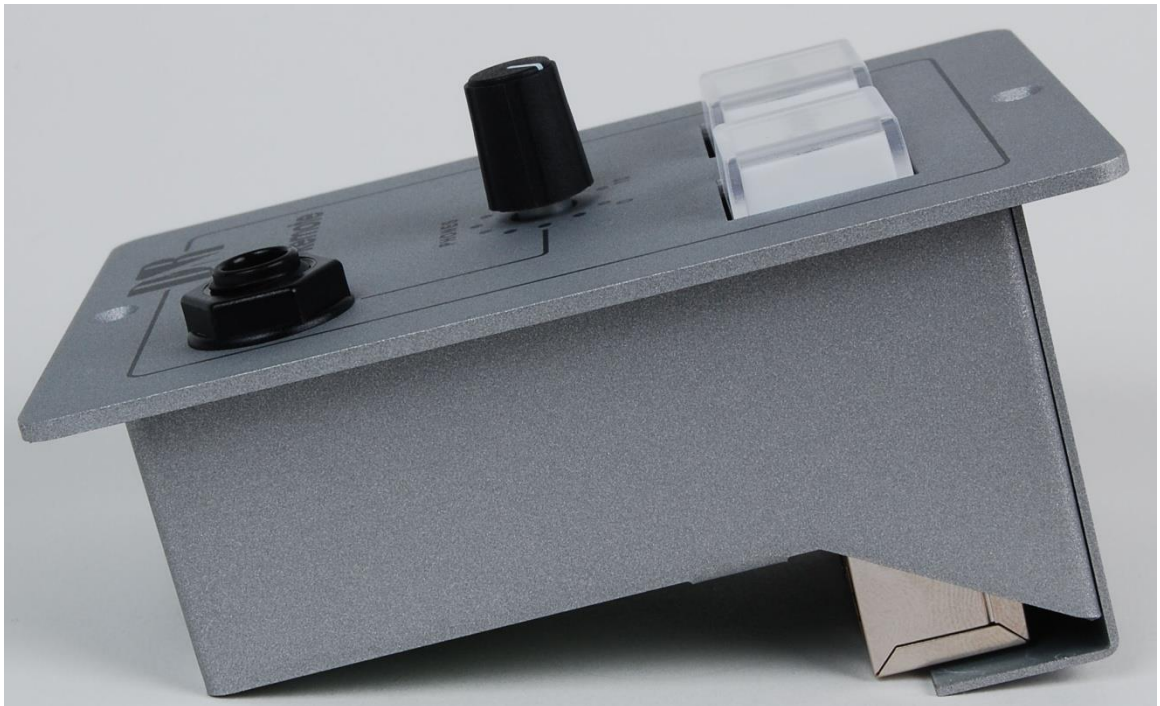# USERS MANUAL
Version 1.09

Studio Remote

Studio Remote/Mic Breakout and Headphone amplifier
for
AXUM | AXITE | AIRLAB | AIRENCE | AIRLITE | AIRMATE

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 comment 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,

Duco de Rijk
MD and founder

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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 **COM**municate 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.
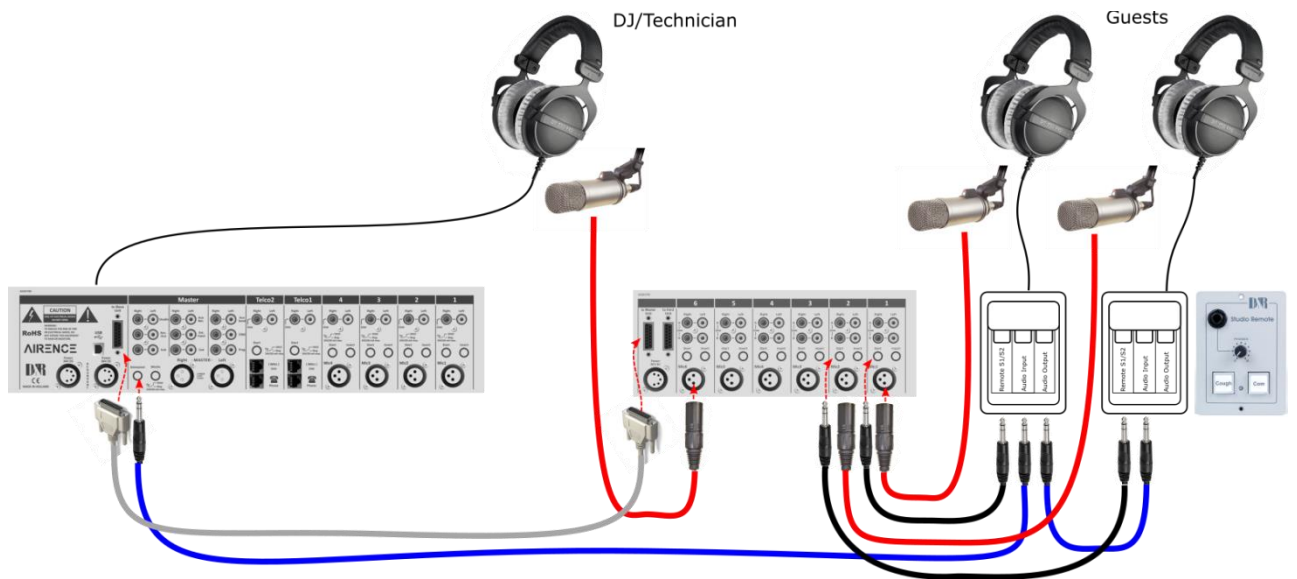A wiring schematic will be shown in the specification section of this manual.

Power-Jack:
Connect the external power-supply (+ 9 to 12 volt) to the Power-Jack connector.
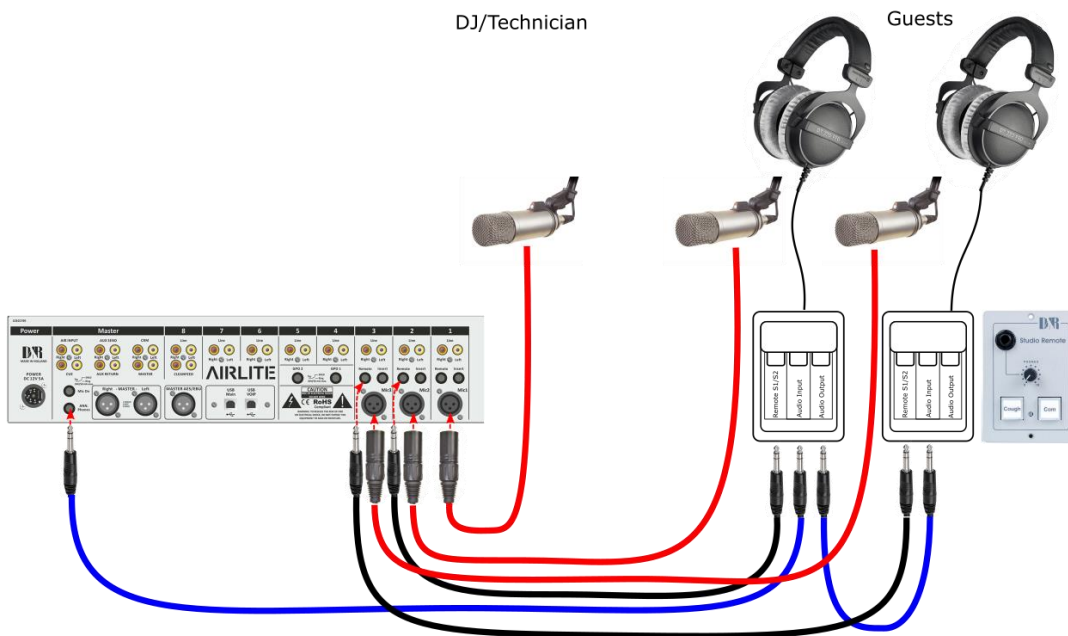
Be careful, only use the standard D&R Studio remote-Unit power-supply that is part of the delivery.
When in doubt ask your local D&R dealer or a qualified technician.
Do not connect a wrong or damaged power-supply to the Studio remote-Unit to prevent you from electric shocks. Always use a Class II power 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		
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	

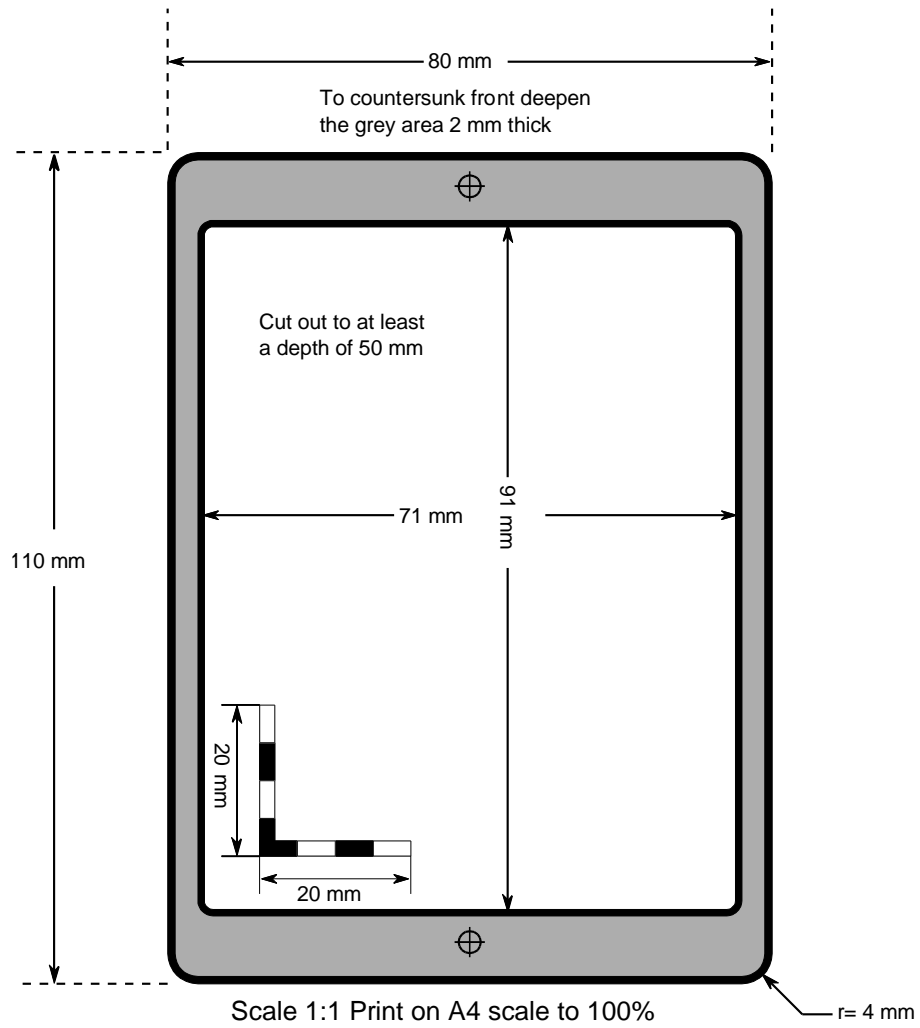| AXUM | AXITE						
Head-Phones (headphone RJ45 are connected in parallel.)			**Microphone**			
pin	name	function	pin	name	funtion
1	1A	Audio-Input 1 Left	1	1A	Mic-Output In-Phase
2	1B	Audio-Input 1 Right	2	1B	Mic-Output Out-Phase
3	2A	Audio-Input 2 Left	3	2A	N.C.
6	2B	Audio-Input 2 Right	6	2B	N.C.
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.						
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" Signalling (TTL)
Ring	Switch	Connected to Com switch (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 (TTL)
Ring	Cough	Connect to Cough switch (TTL)
Sleeve	GND	Reference for TTL

Power Jack (back side) 9V DC 100mA Class II power (without earth pin)	+ ─⊙─ − 9 to 15 Volts DC	
Centre pin	+9V	9 to 12 V DC
Ring	GND	
The Power Jack is protect against reverse polarity connection.		

Cutout Template

80 mm

To countersunk front deepen
the grey area 2 mm thick

Cut out to at least
a depth of 50 mm

91 mm

71 mm

110 mm

20 mm

20 mm

Scale 1:1 Print on A4 scale to 100%

r= 4 mm

EG Declaration of Conformity

We,   D&R Electronica B.V.
        Rijnkade 15b
        1382S Weesp
        Netherlands

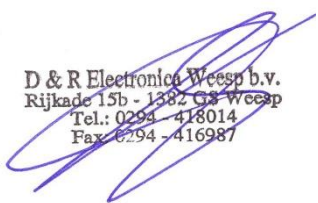Herewith take the sole responsibility to confirm that this product:

        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

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