

## USERS MANUAL

# *Sico unit mk3*



## Remote and Headphones-Amplifier

## Operational & Service Manual Sico-Unit mk3

Dear Customer,

Thank you for choosing the Sico-Unit mk3 remote and headphones-amplifier.

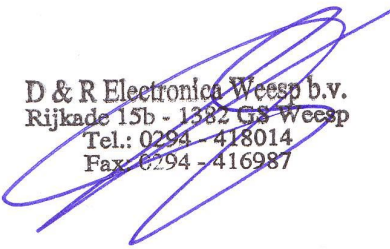
The Sico-Unit mk3 is designed by specialists in the field of radio broadcast and is intended to be used together with the broadcast consoles of D&R Electronica.

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 sent us your comment and/or suggestions, once you have become familiar with your Sico-Unit mk3. 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 idea's and suggestions.

We are confident that you will be using the Sico-Unit mk3 for many years to come, and wish you a lot of success.

With kind regards,



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# Operational & Service Manual Sico-Unit mk3

## **SICO UNIT MK3.**

The Sico 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, 2 channel mixer and an remote switch with RED/GREEN LED indication. The SICO Unit is the perfect solution for headphones ampLIFIER and CHOUGH/COMMUNICATION button for announcer and/or guest. The unit can be connected directly to the D&R AirLab, AirMax and Axum. We shall describe all functions in detail now.

### **REMOTE/SIGNALLING IN MIC MODE.**

This useful feature has two important functions:

1. Remote-Cough/communication,
2. 'Mic-on'

#### **1. Cough/Communication.**

Wiring for the D&R AirLab or AirMix:

A shielded stereo Jack/Jack cable has to be connected between the Sico Unit and the Airmix/Airlab input channel that needs communication.

Wiring for the D&R AirMax or Axum:

A shielded cat5 cable has to be connected between the Sico Unit and the AirMax/Axum mic-input channel that needs communication. Together with the remote control also the Mic-input is direct connected.

Using the push-button during broadcast, the announcer can temporarily mute the microphone in order to cough (where the name comes from). At the same time his microphone will be routed to the Cue system, in order to give him the opportunity to communicate with the engineer/producer.

#### **2. Mic-on' signalling.**

When the channel is active a voltage is applied in the Remote connector which can be used to activate the RED-LED in the Remote-Switch.

### **AUDIO INPUT**

Wiring for the D&R AirLab or AirMix:

The Audio-input jack of the Sico Unit needs to be wired to the master of the Airmix/Airlab, Guest or Announcer outputs or whatever suits your purpose mostly. An internal jumper setting decides which Level control unit (potentiometer) is used to control the headphones level.

Wiring for the D&R AirMax or Axum:

The Audio-input RJ45 of the Sico Unit needs to be wired to the AirMax/Axum. On the RJ45 connector 2 stereo-pairs of audio can be connected. An internal jumper setting decides which Level control unit (potentiometer) is used to control the headphones level.

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The Audio-Input-thru RJ45 can be used to connect more Sico-Units to the same Audio Input (parallel). Always use shielded cat5 cable to prevent hum. Depending on the jumper settings the Audio-Input jack is in parallel with the Audio-Input/Thru RJ45.


### Power-Jack:

Connect the external power-supply to the Power-Jack connector.

**Be careful**, do only use the standard D&R Sico-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 damage power-supply to the Sico-Unit to prevent you from electric shocks. Always use a Class II power supply (without earth pin, double isolated).

### SicoUnit MK3 connections:

<b>Phones (Stereo Jack, front)</b>		
Tip	Phones Left	> 16 Ohm
Ring	Phones Right	> 16 Ohm
Sleeve	GND	
<i>150mW in to 16 Ohm 75mW in to 32 Ohm 45mW in to 64 Ohm</i>		

<b>Power Jack (back site)</b>			
9V DC 100mA Class II power (without earth pin)		9 to 15 Volts DC	
Center pin	+9V	9 to 15 V DC	
Ring	GND		
<i>The Power Jack is protect against reverse polarity connection.</i>			

<b>Remote (Top Stereo Jack, back site)</b>		
Tip	Red-LED	Connect to Anode Red-LED in switch. <b>Need a Seri resistor.</b> I <sub>max</sub> . 10mA In parallel to Mic+Remote RJ45.
Ring	Switch	Remote switch (NO) to Sleeve power rating switch: min. 1 mVDC/100 mA max. 48 VDC/50 mA In parallel to Mic+Remote RJ45.
Sleeve	Cathode Red-LED and Switch-contact	
<i>The pin-out is equal to the D&amp;R AirLab remote connection</i>		

<b>Audio Input (bottom Stereo Jack, back site)</b>		
Tip	Audio Left	Connect to internal jumpers.
Ring	Audio Right	Connect to internal jumpers.
Sleeve	GND	Audio GND

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<b>Audio Input 1/2 (Left Top &amp; Bottom RJ45, back site)</b> <b>(The Top and Bottom RJ45 are connect in parallel.)</b>		
pin	name	
1	1A	Audio-Input 1 Left, Connect to internal jumpers.
2	1B	Audio-Input 1 Right, Connect to internal jumpers.
3	2A	Audio-Input 2 Left, Connect to internal jumpers.
4	3B	nc
5	3A	nc
6	2B	Audio-Input 2 Right, Connect to internal jumpers.
7	4A	nc
8	4B	nc
shielding		Audio GND
<i>Always use shielded cat5 cable to prevent hum. The pin-out is equal to the D&amp;R AirMax and D&amp;R Axum audio connection.</i>		

<b>Mic + Remote (Right Top &amp; Bottom RJ45, back site)</b> <i>The Top and Bottom RJ45 are connect in parallel.</i>		
pin	name	
1	1A	Mic XLR pin2 (hot), Internal connect to the Mic-XLR.
2	1B	Mic XLR pin3 (cold), Internal connect to the Mic-XLR.
3	2A	nc
4	3B	Remote switch (NO) (to shielding) power rating switch: min. 1 mVDC/100 mA max. 48 VDC/50 mA In parallel to Remote-Jack Ring.
5	3A	Connect to Anode Red-LED in switch. <b>Need a Seri resistor.</b> Imax. 10mA In parallel to Remote-Jack Tip.
6	2B	nc
7	4A	Remote input for Green-LED. Switch between Pin7-4A and Pin8-4B. Connect to Pin5-3A via internal jumpers.
8	4B	Remote input for Green-LED. Switch between Pin7-4A and Pin8-4B. Connect to Green-LED control via internal jumpers.
shielding		Audio GND, Cathode Red-LED and Switch-contact
<i>Always use shielded cat5 cable to prevent hum. The pin-out is equal to the D&amp;R AirMax and D&amp;R Axum audio connection.</i>		

<b>Mic XLR ( back site)</b>	
1	Mic GND, Connect to Shielding
2	Mic hot, Connect to Mic + Remote RJ45 pin 1-1A
3	Mic cold, Connect to Mic + Remote RJ45 pin 2-1B
<i>Always use shielded microphone cable to prevent hum.</i>	

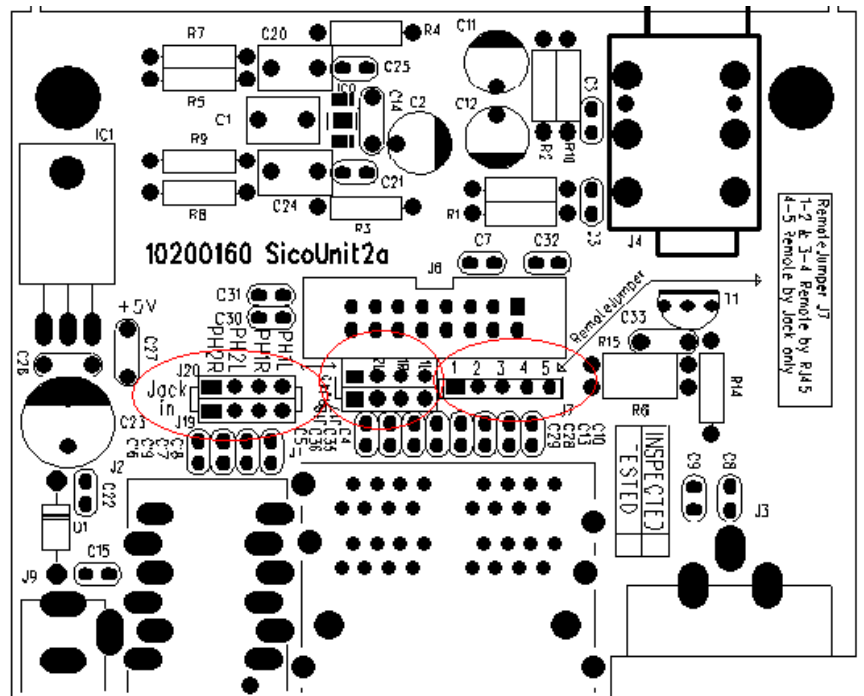
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### SicoUnit Jumper settings:

Inside the Sico-Unit on the PCB you can find the jumpers for setting up the two level-potentiometers and the remote control.

Audio-Input on Stereo Jack:		
J19	J20	function
1	1	Right to Pot2
2	2	Left to Pot2
3	3	Right to Pot1
4	4	Left to Pot1

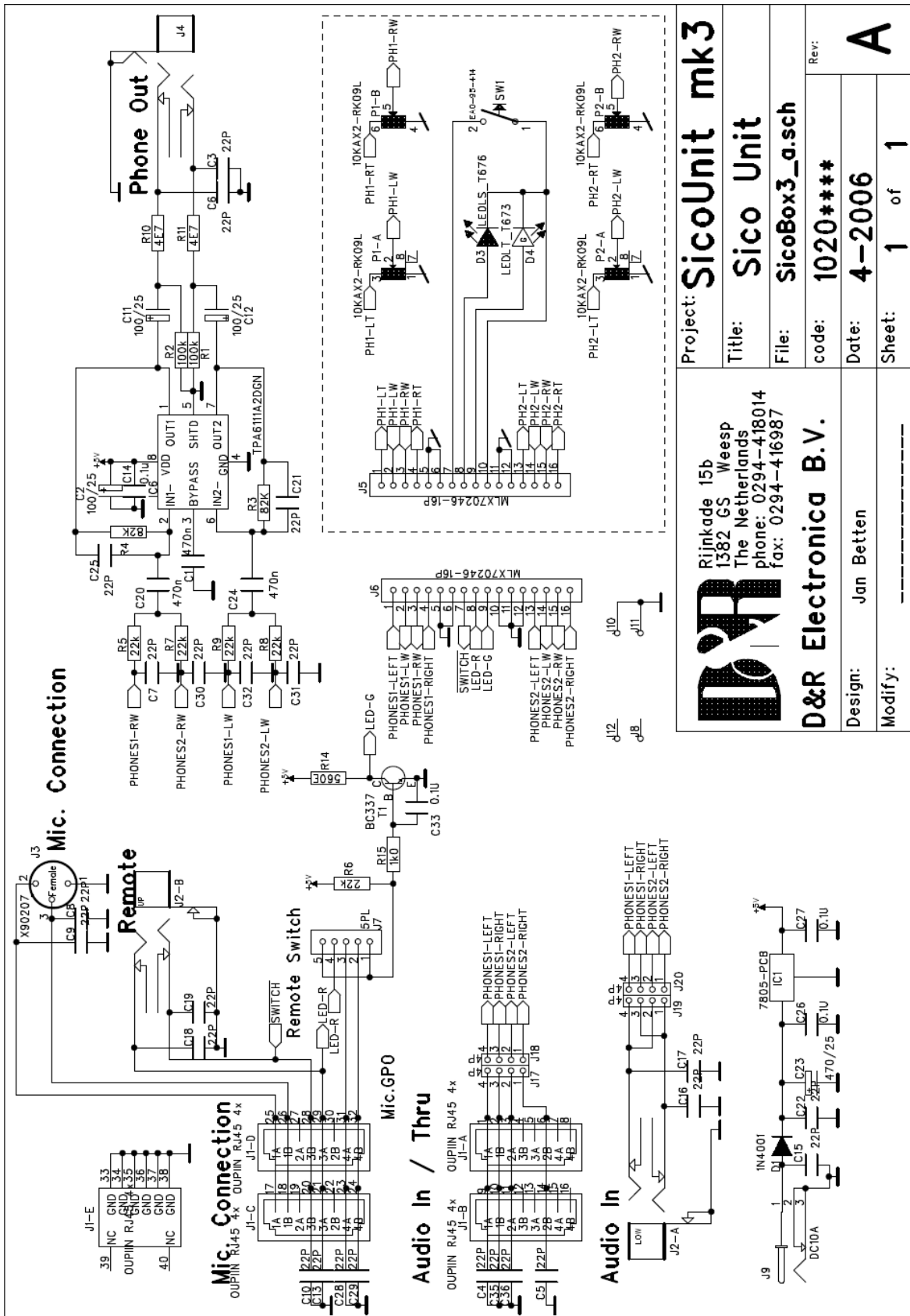
Audio-Input on RH45 (2x stereo):		
J17	J18	function
1	1	Right2 to Pot2
2	2	Left2 to Pot2
3	3	Right1 to Pot1
4	4	Left1 to Pot1



Remote Jumper J7	
Jmp	function
1-2	Red/Grn-LED
3-4	by RJ45 and Remote Jack (with switch)
4-5	Default Red/Grn-LED by RJ45 or Remote Jack (no switch)



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<b>Project: SicoUnit mk3</b>	
<b>Title: Sico Unit</b>	
<b>File: SicoBox3_a.sch</b>	
<b>code: 1020****</b>	Rev:
<b>Date: 4-2006</b>	<b>A</b>
<b>Sheet: 1 of 1</b>	

**D&R**

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Design: Jan Betten  
Modify: \_\_\_\_\_

# Operational & Service Manual Sico-Unit mk3

## **EG Declaration of Conformity**

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We, D&R Electronica Weesp B.V.  
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1382S Weesp  
The Netherlands

Herewith take the sole responsibility to confirm that this product:

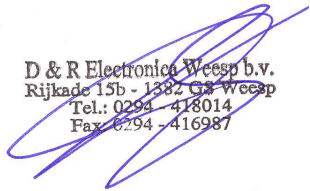
Type designation : **Sico-Unit mk3 (2006)**

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



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April 2006  
Weesp

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