



AeroAudio

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MOS QUATRO IP MKII

MANUAL

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MOS QUATRO IP MKII

MANUAL

The MOS Quatro IP MKII is a unit to control tally lights by a network protocol. In the first place you can control microphone tally's like the one on the Yellowtec MIKA microphone arms. There is also a possibility to control 5 extra tally's like the Yellowtec LITT pole or other brands.

The MOS Quatro IP MKII is equipped with a PoE of 30 watt (PoE+ standard), but You can also connect an ac/dc adapter of 12 volt dc and minimum 2 amp. (the power consumption depends on the quantity of led's You have connected). If You have connected all tally's and microphones and You need more power then 30 watt, then You can connect an extra ac/dc supply of 12 volt as well to increase the power of the unit.

The four microphone ports switch separately from each other. The indication LED's on the front panel of the MOS Quatro IP shows the status of each microphone. These LED's indicates whether the microphone arms are on standby, fixed white light, or fading in and out.

The status LED tells You the status of the white lights. If this LED is on, the function of the white lights are set for fading. If this LED is off, then the white lights are fixed. It also tells you if the unit is connected to the network and if a tcp connection is working. Slow blinking means no physical connection to a network and fast blinking means, that in case of a tcp connection, that there is no connection with the other device.

Up to 4 microphone arms can be connected to the rear panel of the MOS Quatro IP. The MOS Quatro IP will control the lights of the connected arms in red for on-air and white for off-air.

The audio signal is routed directly from the connected microphone arm to a standard 3-pin XLR connector.



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Connections from left to right

Power

12 volts DC

RJ45 - TALLY

The connection for the 5 tally's is made by an RJ45 connector.

- pin 1 = Tally 1
- pin 2 = Tally 2
- pin 3 = Tally 3
- pin 4 = Tally 4
- pin 5 = Tally 5
- pin 6 = +12 volt (only when connecting a litt unit)
- pin 7 = ground
- pin 8 = ground

The + 12 volt (pin6) is only used when You connect a Yellowtec Litt unit.
If you connect a led tally use pin1 till pin5 and the ground.

When a tally is active then the corresponding pin is high (+12 volt, 300 mA max).
The tally outputs are limited at 300 mA by a self-resetting fuse.

ETHERNET

Ethernet network connection

It is best to ground the device or place the device in a rack that is properly earthed to prevent static discharge, should this happen please reboot the device.

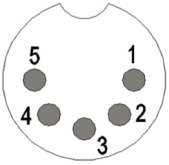


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XLR 5p female

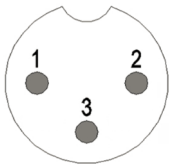
Microphone arm I-4



Pin	Function	Type
1	Shield	Shield
2	Signal +	Input
3	Signal -	Input
4	LED + 12 volt	Output
5	Led - 12 volt	Output

XLR 3p male

Microphone I-4 output audio signal



Pin	Function	Type
1	Shield	Shield
2	Signal +	Input
3	Signal -	Input

Dimensions

19 inch, 1HE
Depth: 22.2cm
Weight: 2.6kg

Network access

You can set the MOS Quatro IP by using a web page. To open this webpage you can use a web browser on your pc like Chrome or Edge. On the top line of the web browser you can type the ip address. Once the web page is open you can change the various settings as needed. After these changes you always have to press the button "Save settings and reboot" to save these changes.

The connection with the different devices are made by a lan connection. The commands itself are so called udp or tcp commands. For tcp there is a fixed connection between the MOS Quatro IP and a device like f.i. a mixing console. For these connections the different ports might not be blocked in your switch or router and then a connection would fail.

On the web page is a box with the ip address with the device you want to connect to. Behind this box you can see if a tcp connection is successful. (connected or not connected)





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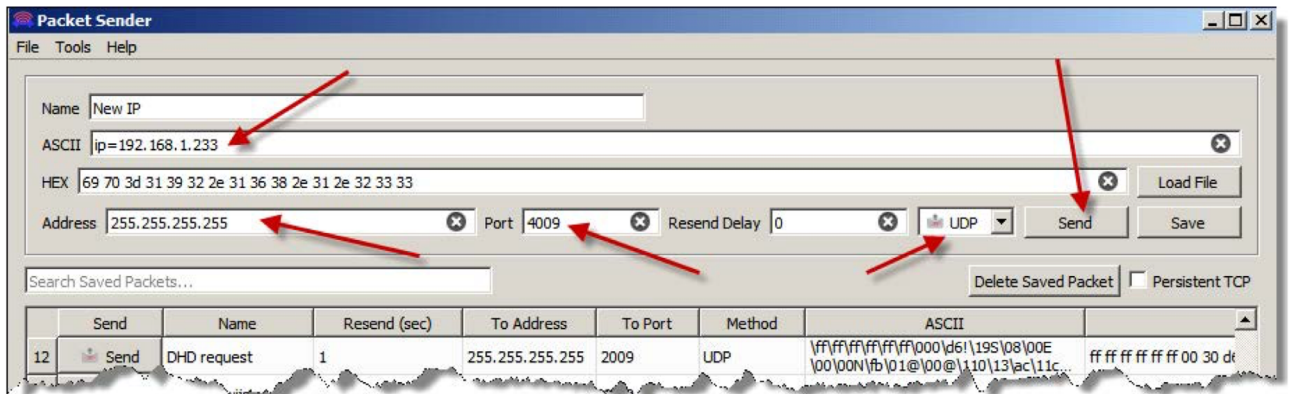
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To ensure that a port is not blocked we give you the port numbers for the different sessions.

The ports for the different devices are:

For Ember+ tcp port: 9000
 For Axia IQX/QOR tcp port: 4010
 For Axia Xnode tcp port: 93
 For DHD global logics udp port: 2009
 For synchronising white fading udp port: 4009

The MOS quatro IP does not support the dhcp protocol for ip settings. In stead You can use a freeware tool called Packetsender. You can download this at www.packetsender.com/download



With this tool You are able to set the MOS quatro directly to a correct IP address for Your own network.

You can sent a so called broadcast to the MOS LED on a specific port to arrange this. To do this type at the ASCII line the text: ip=192.168.1.20 All together and lowercase; so no spaces. You can use any IP address as long as it starts with ip= and don't forget the dots!

At the address you type 255.255.255.255 to broadcast it on the network. A broadcast is sent to every device at your network. Next You have to select the port number. This has to be 4009 and at last select the protocol. This has to be UDP. Then finally press sent.

As soon as this broadcast is accepted by the MOS quatro the red led's will lit for 2 seconds. Now You can load the webpage with a browser by typing this IP address in the line of the browser.

Port 4009 will be closed as soon as the webpage is loaded at your browser. The reason for that is that ports that are not used anymore, has to be closed. Just to be sure that there is no unnecessary traffic.

To activate (and open) port 4009 again You have to switch of the power for a couple of seconds.

There is also a command to restore the default IP address 192.168.0.101 This is the command restore. All in lower case. If you sent this command the default IP address settings are restored.



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The MOS Quatro IP settings can be adjusted using a standard webbrowser.

The factory default settings:

IP 192.168.0.101

Subnetmask: 255.255.255.0

It may take up to 30 seconds for the device to be active on the network after connecting the device to your computer or network.

Enter the IP address in your browser and the MOS Quatro IP will display the following settings page:

Aero Audio	
MOS-QUATRO-IP MKII	
Remote device settings Select device: <input type="text" value="DHD logic selected"/>	Quatro IP settings IP address: <input type="text" value="192.168.1.101"/> Subnet mask: <input type="text" value="255.255.255.0"/> MAC: <input type="text" value="00.50.C2.80.8C.27"/> Firmware: V 2.1.3
Device mode: DHD logic - UDP	MIC1 - MIC4 White light settings Select mode: <input type="text" value="White Continuous selected"/>
MIC-1 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="1"/>	MIC-2 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="2"/>
MIC-3 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="3"/>	MIC-4 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="4"/>
Tally 1 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="5"/>	Tally 2 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="6"/>
Tally 3 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="7"/>	Tally 4 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="8"/>
Tally 5 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="9"/>	<input type="button" value="Save settings and reboot"/>

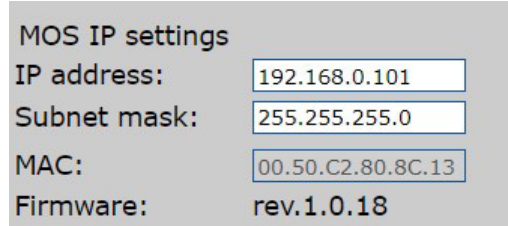


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MOS Quatro IP MKII settings

Here the IP address with the corresponding subnet mask can be set. The MAC address is unique for each device and can not be changed. The firmware shows the currently running firmware version of the device.

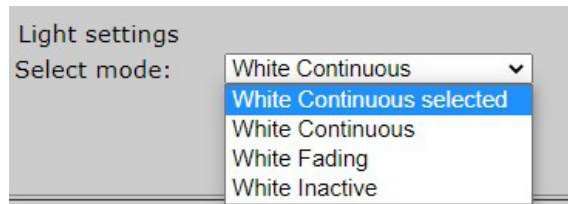


MOS IP settings
IP address:
Subnet mask:
MAC:
Firmware: rev.1.0.18

To activate and save the settings press “Save settings and reboot.”

Save settings and reboot

Light settings



Light settings
Select mode:
White Continuous selected
White Continuous
White Fading
White Inactive

White Continuous: When microphone is OFF, white light will be ON.

White Fading: When all microphones are OFF, white light will be ON and fading will start after 1 minute of no red lights. If you use several MOS quatro's in your network the fading will be synchronized. To synchronize the fading of several devices we use the network; udp port 4009

White Inactive: When microphone is OFF, white light is also OFF.
To activate and save the settings press “Save settings and reboot.”

Select a device / protocol

At this moment the MOS Quatro IP MKII supports 5 protocols / devices :

- 1: EMBER+
- 2: DHD GLOBAL LOGIC
- 3: TELOS AXIA X-NODE / LIVEWIRE DRIVER
- 4: TELOS AXIA QOR/IQX
- 5: TCP COMMANDS



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EMBER +

Ember+ is supported by several brands (f.i. DHD, Lawo)

Remote device settings: select “Ember+”

Remote IP: Because it is a tcp connection You have to specify the IP address of the remote device. In this example 192.168.1.123 - Make sure that the devices are in the same IP-range.

If the connection succeeds there will be a text in the box under **Device mode** (Connected) when you have pressed “Save settings and reboot”

Red GPO / Tally GPO: The activation of the lights are controlled by the GPO outputs of your console/node.

Just give in the number of the corresponding GPO port as shown in the example below.

There is also an extra option made for this Ember+ setting.

It is possible to control the white light of the four microphones separately. For this we have under the tab “select mode” of the white light settings the selection called **Solo**. Note that this selection is only visible when you first have selected the Ember+ option under Remote device settings.

When you have selected the solo option there are 4 extra fields visible in the MIC-1 to MIC-4 boxes called “White GPO”

In here You can put the Gpo numbers to control these white lights just as You do for the red ones.

These white lights will always be overruled by the red light of the chosen channel, i.o.w. the white light will be reset when the corresponding source goes active (red)

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MOS-QUATRO-IP MKII	
Remote device settings Select device: <input type="text" value="Ember+ selected"/> Remote IP: <input type="text" value="192.168.1.123"/>	Quatro IP settings IP address: <input type="text" value="192.168.1.101"/> Subnet mask: <input type="text" value="255.255.255.0"/> MAC: <input type="text" value="00.50.C2.80.8C.27"/> Firmware: V 2.1.5
Device mode: TCP / Connect to device Connected	MIC1 - MIC4 White light settings Select mode: <input type="text" value="Solo selected"/>
MIC-1 settings Red GPO: <input type="text" value="21"/> White GPO: <input type="text" value="16"/>	MIC-2 settings Red GPO: <input type="text" value="50"/> White GPO: <input type="text" value="40"/>
MIC-3 settings Red GPO: <input type="text" value="48"/> White GPO: <input type="text" value="2"/>	MIC-4 settings Red GPO: <input type="text" value="34"/> White GPO: <input type="text" value="22"/>
Tally 1 settings Tally GPO: <input type="text"/>	Tally 2 settings Tally GPO: <input type="text"/>
Tally 3 settings Tally GPO: <input type="text"/>	Tally 4 settings Tally GPO: <input type="text"/>
Tally 5 settings Tally GPO: <input type="text" value="40"/>	<input type="button" value="Save settings and reboot"/>



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2: DHD LOGIC

Remote device settings: select “DHD logic”

DHD Project ID: enter your DHD Project ID, in this example “AERO”
You only have to do that in de MIC1 settings box

Global logic: enter your Global logic; You only have to give in a number
To activate and save the settings press “Save settings and reboot.”

Aero Audio	
MOS-QUATRO-IP MKII	
Remote device settings Select device: <input type="text" value="DHD logic selected"/>	Quatro IP settings IP address: <input type="text" value="192.168.1.101"/> Subnet mask: <input type="text" value="255.255.255.0"/> MAC: <input type="text" value="00.50.C2.80.8C.27"/> Firmware: V 2.1.3
Device mode: DHD logic - UDP	MIC1 - MIC4 White light settings Select mode: <input type="text" value="White Continuous selected"/>
MIC-1 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="1"/>	MIC-2 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="2"/>
MIC-3 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="3"/>	MIC-4 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="4"/>
Tally 1 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="5"/>	Tally 2 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="6"/>
Tally 3 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="7"/>	Tally 4 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="8"/>
Tally 5 settings DHD Project ID: <input type="text" value="AERO"/> Global logic: <input type="text" value="9"/>	<input type="button" value="Save settings and reboot"/>



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3: TELOS AXIA XNODE

Remote device settings: select “Axia xnode”

Remote IP: enter the IP address of the device

Remote device settings	
Select device:	Xnode selected ▼
Remote IP:	192.168.1.46
Device mode: TCP / Connect to device	
Not connected	

In this example 192.168.1.46 - Make sure that devices are in the same IP-range.

GPIO: Select your GPIO contact and designated PIN

In this example “GPI1” and “PIN 1”

If there are who sources are not in use, you can select “not used”

To activate and save the settings press “Save settings and reboot.”

Aero Audio	
MOS-QUATRO-IP MKII	
Remote device settings Select device: Xnode selected ▼ Remote IP: 192.168.1.46	Quatro IP settings IP address: 192.168.1.101 Subnet mask: 255.255.255.0 MAC: 00.50.C2.80.8C.27 Firmware: V 2.1.3
Device mode: TCP / Connect to device Connected	MIC1 - MIC4 White light settings Select mode: White Continuous selected ▼
MIC-1 settings GPIO: GPI 1 selected ▼ Pin 1 selected ▼	MIC-2 settings GPIO: GPI 2 selected ▼ Pin 2 selected ▼
MIC-3 settings GPIO: GPI 3 selected ▼ Pin 3 selected ▼	MIC-4 settings GPIO: GPI 4 selected ▼ Pin 4 selected ▼
Tally 1 settings GPIO: GPI 5 selected ▼ Pin 5 selected ▼	Tally 2 settings GPIO: GPO 1 selected ▼ Pin 1 selected ▼
Tally 3 settings GPIO: GPO 2 selected ▼ Pin 2 selected ▼	Tally 4 settings GPIO: GPO 3 selected ▼ Pin 3 selected ▼
Tally 5 settings GPIO: Not used ▼ selected ▼	<input type="button" value="Save settings and reboot"/>



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4: TELOS AXIA QOR/IQX

Remote device settings: select “Axia QOR/IQx”

Remote IP: enter the IP address of the QOR/IQx

In this example 192.168.1.46 - Make sure that devices are in the same IP-range.

The Quatro only will except the commands if the TCP connection is ok. You can see that under de tab “Device mode”.

Channel Name: Enter the name of the channel in question here, which corresponds to the text on the console.

The name must be identical to the name on the display of your mixing console.

(including the spaces) If the name on the display of your console is “DJ MIKE” then type that name exactly in the webpage like the example below. You can give in the same name in different fields to activate more tally’s with the same command. In our example Mic-4 settings and Tally 3 settings.

If you have finished by typing the text at the webpage, then you can give a load settings from the console. Now the settings of the console are stored in the Quatro IP

To activate and save the settings press “Save settings and reboot.”

AeroAudio	
MOS-QUATRO-IP MKII	
Remote device settings Select device: <input type="text" value="QOR/IQx selected"/> Remote IP: <input type="text" value="192.168.1.46"/>	Quatro IP settings IP address: <input type="text" value="192.168.1.101"/> Subnet mask: <input type="text" value="255.255.255.0"/> MAC: <input type="text" value="00.50.C2.80.8C.27"/> Firmware: V 2.1.6
Device mode: TCP / Connect to device Connected	MIC1 - MIC4 White light settings Select mode: <input type="text" value="Inactive selected"/>
MIC-1 settings Channel Name: <input type="text" value="DJ MIKE"/>	MIC-2 settings Channel Name: <input type="text" value="Mic 1"/>
MIC-3 settings Channel Name: <input type="text" value="MIC6"/>	MIC-4 settings Channel Name: <input type="text" value="MIC3"/>
Tally 1 settings Channel Name: <input type="text" value="AUX 1"/>	Tally 2 settings Channel Name: <input type="text" value="Aux 2"/>
Tally 3 settings Channel Name: <input type="text" value="MIC3"/>	Tally 4 settings Channel Name: <input type="text" value="CD"/>
Tally 5 settings Channel Name: <input type="text" value="MIC2"/>	<input type="button" value="Save settings and reboot"/>



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5: TCP COMMANDS / STRINGS

Remote device settings: select “TCP commands”

TCP ON: string to activate MIC I to ON (red); In this example: Mic I on

TCP OFF: string to de-activate MIC I to OFF (white or no color); In this example: Mic I off

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MOS-QUATRO-IP MKII

Remote device settings Select device: <input type="text" value="TCP commands selected"/>	Quatro IP settings IP address: <input type="text" value="192.168.1.101"/> Subnet mask: <input type="text" value="255.255.255.0"/> MAC: <input type="text" value="00.50.C2.80.8C.27"/> Firmware: <input type="text" value="V 2.1.3"/>
Device mode: <input type="text" value="Listen to device - TCP"/>	MIC1 - MIC4 White light settings Select mode: <input type="text" value="White Continuous selected"/>
MIC-1 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="1"/>	MIC-2 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="2"/>
MIC-3 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="3"/>	MIC-4 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="4"/>
Tally 1 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="5"/>	Tally 2 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="6"/>
Tally 3 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="7"/>	Tally 4 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="8"/>
Tally 5 settings TCP on: <input type="text" value="AERO"/> TCP off: <input type="text" value="9"/>	<input type="button" value="Save settings and reboot"/>



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Safety First!

- Caution: hot and sharp surfaces ! This professional device should only be installed by qualified personnel.
- Check the cardboard box for any damage upon receipt of the goods. In case of a damaged box, please contact your distributor contact your distributor before opening the box.
- Read all documentation before using the unit.
- Keep all documentation for future use.
- Keep the box and packing materials even if the equipment has arrived in good condition.
- Should you ever need to ship the equipment, use only the original factory packaging.
- Do not spill water or other liquids in or on the unit.
- Always use the power supply provided.
- Make sure the outlets match the power requirements listed on the back of the power supply.
- Do not use the unit if the power cord is frayed or broken.
- Turn off and disconnect the devices from the power supply before making any connections.
- Do not use the unit near heaters, heating vents, radiators, or other devices that produce heat.
- Do not use the unit on a surface or in an environment that may interfere with the normal flow of air around the unit.
If the unit is used in an extremely dusty or smoky environment, the unit should be "dusted" periodically.
- Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages.
- In case of malfunction, this unit should only be serviced by qualified service personnel.
- Always follow the instructions of the supplier and manufacturer - Use only manufacturer specified accessories, spare and replacement parts.
- Use the device only for the application the manufacturer intended.





DECLARATION OF CONFORMITY

acc. to art. 10.1 EMC directive 89/336/EEC

We, **TVV SOUND PROJECT B.V.**
STEENWEG 148C
9810 NAZARETH
BELGIUM

hereby declare, exclusively to our responsibility, that this product

MOS QUATRO IP **Serialnrs.: 1- xxx**

to which this declaration applies, is in accordance with the following harmonized European norms

EN 50081-1 and EN 50082-1

According to the regulations of the EMC-directive 89/336/EEG, amended by directive 91/263/EEG, 92/31/EEG and 93/68/EEG.

en 60065

According to the regulations of IEC 65: 1985 + A1: 1987 + A2: 1989 + A3: 1992, mod.
Ratification: 1993-07-06

Nazareth, January 16th 2023

Edo Dijkstra, managing director

Stamp:

Signature:



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PROJECT
WWW.TVVSOUND.BE

