

# MOS QUATRO IP MANUAL

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# MOS QUATRO IP

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The MOS Quatro IP is a four-way 19 inch microphone on-air switch for switching microphone lighting on for example the Yellowtec Mika microphone arms.  
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.



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.

### Connections from left to right

#### Power

9 to 18 volts DC

#### RJ11

Link connection for synchronisation with other MOS (Uno or Quatro)

Link1 = master and Link2 = slave

You need this link only when the white led's are set to fading (statusled is on)

To activate or deactivate this function see chapter "light settings" on page 5

#### 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 1

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 1 output audio signal

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

### **XLR 5p female**

Microphone arm 2

### **XLR 3p male**

Microphone 2 output audio signal

### **XLR 5p female**

Microphone arm 3

### **XLR 3p male**

Microphone 3 output audio signal

### **XLR 5p female**

Microphone arm 4

### **XLR 3p male**

Microphone 4 output audio signal

### **Dimensions**

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





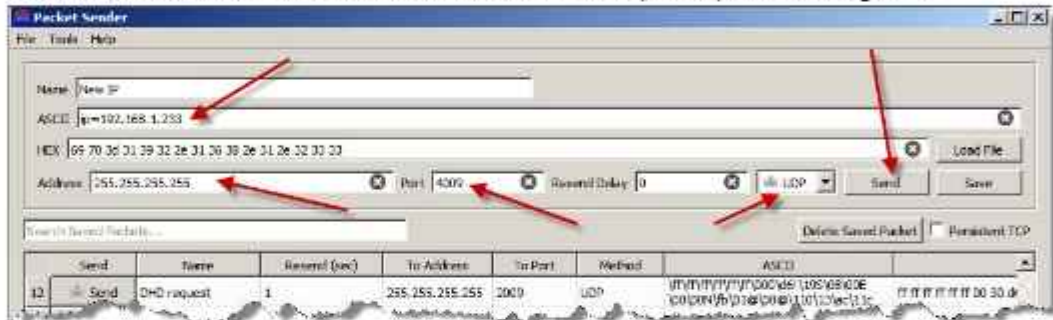
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## Network access

The MOS quatro IP does not support the dhcp protocol for ip settings. In stead You can use a free-ware tool called Packetsender. You can download this at [www.packetsender.com/download](http://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!

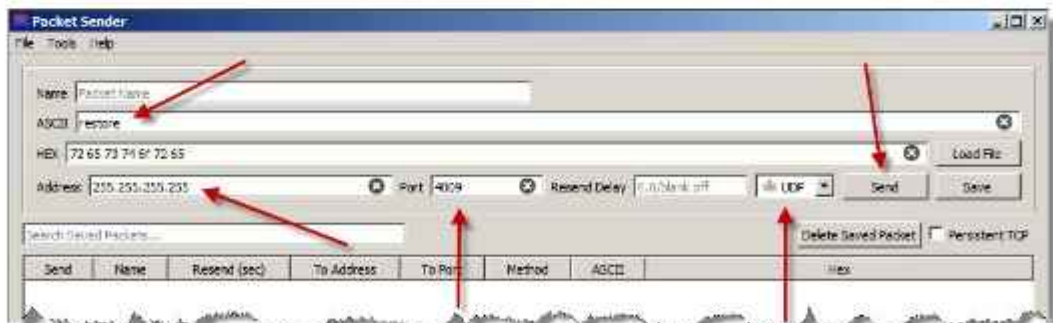
At the address you type 255.255.255.255 to broadcast it on the network. A broadcast is sent to every device at your network. Next You have to select the port number. This has to be 4009 and at last select the protocol. This has to be UDP. Then finally press sent.

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

Device mode: DHD logic	
<b>Remote device settings</b> Select device: <input type="text" value="DHD logic selected"/> Remote IP: <input type="text" value="192.168.0.1"/>	<b>Light settings</b> Select mode: <input type="text" value="White Continuous selected"/>
<b>MIC-1 settings</b> DHD Project ID: <input type="text" value="FUGR"/> Global logic: <input type="text" value="1"/>	<b>MIC-2 settings</b> DHD Project ID: <input type="text" value="FUGR"/> Global logic: <input type="text" value="2"/>
<b>MIC-3 settings</b> DHD Project ID: <input type="text" value="FUGR"/> Global logic: <input type="text" value="3"/>	<b>MIC-4 settings</b> DHD Project ID: <input type="text" value="FUGR"/> Global logic: <input type="text" value="4"/>
<b>MOS IP settings</b> IP address: <input type="text" value="192.168.0.101"/> Subnet mask: <input type="text" value="255.255.255.0"/> MAC: <input type="text" value="00:50:C2:80:8C:13"/> Firmware: rev.1.0.18	<input type="button" value="Save settings and reboot"/>

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## MOS Quatro IP 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:	<input type="text" value="192.168.0.101"/>
Subnet mask:	<input type="text" value="255.255.255.0"/>
MAC:	<input type="text" value="00:50:C2:80:8C:13"/>
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:	<input type="text" value="White Continuous"/> 
	<ul style="list-style-type: none"><li>White Continuous selected</li><li>White Continuous</li><li>White Fading</li><li>White Inactive</li></ul>

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

**White Fading:** When microphone is OFF, white light will be ON and will be fading after 1 minut.

**White Inactive:** When microphone is OFF, white light is also OFF.

To activate and save the settings press "Save settings and reboot."

## Methods

There are 4 methods to work with MOS Quatro IP:

- METHOD 1: TCP COMMANDO'S / STRINGS
- METHOD 2: TELOS AXIA X-NODE / LIVEWIRE DRIVER
- METHOD 3: TELOS AXIA QOR/IQ/IQX
- METHOD 4: DHD LOGIC





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## METHOD 1: TCP COMMANDS / STRINGS

**Remote device settings:** select "TCP commands"

Remote device settings  
Select device:  ▼  
Remote IP:

**Remote IP:** not used in this method

To activate and save the settings press "Save settings and reboot."

## MIC 1 (same for MIC 2, MIC 3 and MIC 4)

**TCP ON:** string to activate MIC 1 to ON (red)

**TCP OFF:** string to de-activate MIC 1 to OFF (white or no color)

MIC-1 settings  
TCP on:   
TCP off:

You can activate this command by sending the specific string to the IP address of the MOS Quatro IP and port 93.

In this example 192.168.0.101 port 93

To activate and save the settings press "Save settings and reboot."



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## METHOD 2: TELOS AXIA X-NODE / LIVEWIRE DRIVER

**Remote device settings:** select "Axia X-node"

Remote device settings  
Select device: Xnode selected ▾  
Remote IP: 192.168.0.1 Not connected

**Remote IP:** enter the IP address of the X-node/livewire  
In this example 192.168.0.100 - Make sure that devices are in the same IP-range.

Remote device settings  
Select device: Xnode selected ▾  
Remote IP: 192.168.0.100 Connected

To activate and save the settings press "Save settings and reboot."

Save settings and reboot

## MIC 1 (same for MIC 2, MIC 3 and MIC 4)

**GPIO:** Select your GPIO contact and designated PIN  
In this example "GPI1" and "PIN 1"

MIC-1 settings  
GPIO: GPI 1 selected ▾ Pin 1 selected ▾

**TCP ON** and **TCP OFF:** not used in this method

To activate and save the settings press "Save settings and reboot."

Save settings and reboot

After save settings and reboot, if the device is found it will show "connected"

Remote device settings  
Select device: Xnode selected ▾  
Remote IP: 192.168.0.1 Not connected

If not it will show "not connected"  
Please check if your device is correctly connected and the IP address is set correct.





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## METHOD 3: TELOS AXIA QOR/IQ/IQx

**Remote device settings:** select "Axia QOR/IQx"

Remote device settings  
Select device:  ▼  
Remote IP:

**Remote IP:** enter the IP address of the QOR/IQx  
In this example 192.168.0.1 - Make sure that devices are in the same IP-range.

Remote device settings  
Select device:  ▼  
Remote IP:  connected

To activate and save the settings press "Save settings and reboot."

Save settings and reboot

## MIC 1 (same for MIC 2, MIC 3 and MIC 4)

**Channel Name:** enter source name of your microphone like you use in the QOR/IQx source profile. In this example "MIC DJ"

MIC-1 settings  
Channel Name:

To activate and save the settings press "Save settings and reboot."

Save settings and reboot

Make sure for the first use to reload the show profile of your studio console.

Remote device settings  
Select device:  ▼  
Remote IP:  Not connected

If not it will show "not connected"  
Please check if your device is correctly connected and the IP address is set correct.

If for any reason the MOS Quatro IP doesn't react on the commands of the QOR/IQx (this can be caused by power reboot of the QOR/IQx or too fast loading of the show profiles) then please try to reload the show profile on the QOR/IQx.



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## METHOD 4: DHD LOGIC

**Remote device settings:** select "DHD logic"

Remote device settings  
Select device:  ▼  
Remote IP:

**Remote IP:** enter IP of the DHD device  
In this example 192.168.0.1 - Make sure that devices are in the same IP-range.

To activate and save the settings press "Save settings and reboot."

Save settings and reboot

## MIC 1 (same for MIC 2, MIC 3 and MIC 4)

**DHD Project ID:** enter your DHD Project ID, in this example "FUGR"  
**Global logic:** enter your Global logic, in this example "1"

MIC-1 settings  
DHD Project ID:   
Global logic:

To activate and save the settings press "Save settings and reboot."

Save settings and reboot



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## Test application [download](#)

There are 2 options to run The Test\_Application\_MOS\_Quatro\_IP.py file:

### 1. In Command prompt

To do this, you need to go to the location where the file is located by typing: cd "location of file"

Next you type this: python Test\_Application\_MOS\_Quatro\_IP.py

When you press enter, the program will start immediately.

### 2. In any software that can run python (for example Thonny)

When the file is opened you can press F5 and the program will start immediately.

In the first application you'll need to type in the IP address.

You can reach the local website of the MOS Quatro IP by typing the IP address of the device in a web browser.

If you can't reach the local website, then you probably need to change the IP address of the ethernet port of your computer to the same range as the IP of the MOS Quatro IP.

Next you can choose which protocol you want to use to send the commands.

You have 2 options: TCP or DHD.

### 1. TCP

If you choose "TCP", then you need to select on the local website of the device "TCP commands". Now press "Save settings and reboot". This will allow you to send TCP commands to the device.

After this you need to set the "TCP ON" and "TCP OFF" for MIC-1 settings to "On1" and "Off1". You need to do the same for MIC-2 settings, MIC-3 settings and MIC-4 settings, but instead of "On1" and "Off1" you need to type in "On" and "Off" followed by the number of the MIC.

For example: "On2" and "Off2" for MIC-2 settings.

After this you need to press the "Save settings and reboot" button on the local website.

When you've typed in the correct IP address in the application, you can press "Connect" and a new window will open (this may take 2 seconds).

If there is any error, then this will be displayed in an error above the exit button.

In this window you can change the state of the 4 mic's by sending TCP commands if you've pressed a button. You can also press "Automatic", then the mic's will go from left to right on and off. When you've done that, the application will not change immediately but after 1 cycle it will update. When you've pressed "Stop Automatic", the cycle will be completed before the application gets updated.

If there are any errors this will be displayed next to the home button at the bottom of the application. When everything seems to work you can close the application by pressing the cross at the top right of the application or by pressing the home button at the bottom of the application.





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## 2. DHD

If you choose "DHD", then you need to select on the local website of the device "DHD global logics". Now press "Save settings and reboot". This will allow you to send DHD commands in UDP packets to the device.

After this you need to set "DHD Project ID" of MIC-1 settings to "AERO". Now you need to set "Global logic" of every MIC to the corresponding MIC number.

For example: MIC-1 settings will have "Global logic" set to "1", MIC-2 settings will have "Global logic" set to "2",...

When you've done this for every MIC, you can press "Save settings and reboot". Now when you've typed in the correct IP address in the application, you can press "Connect" and a new window will open.

If there is any error, than this will be displayed in an error above the exit button.

In the window you can change the state of the 4 mic's by sending UDP packets if you've pressed a button. You can also press "Automatic", then the mic's will go from left to right on and off. When you've done that, the application will not change immediately but after 1 cycle it will update. When you've pressed "Stop Automatic", the cycle will be completed before the application gets updated. If there are any errors this will be displayed next to the home button at the bottom of the application.

When everything seems to work you can close the application by pressing the cross at the top right of the application or by pressing the home button at the bottom of the application.





### 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:



**TVV SOUND**  
**PROJECT**  
WWW.TVVSOUND.BE

