



# MAMOS – CONFIGURATION OF LAN MODULE

## User manual

Version: 1.0  
07/2016

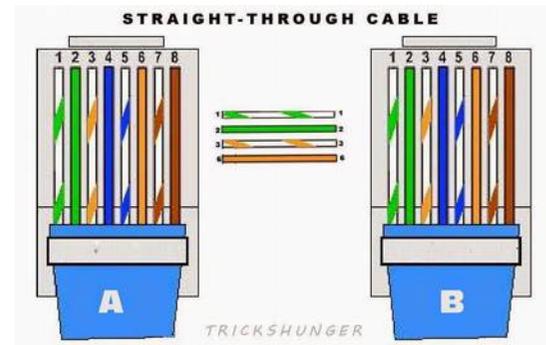
**madur**  
E L E C T R O N I C S

Mamos analyser can optionally be equipped with LAN communication interface. It replaces one of the standard interfaces, i.e. RS485. Ethernet protocol is translated to serial communication via LAN module. For proper communication LAN module must be properly configured:

# 1. CONFIGURATION OF LAN MODULE

## 1.1. Mamos connected to network with Router (DHCP provided)

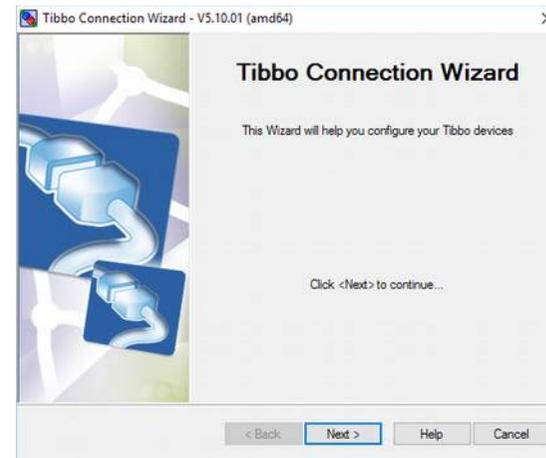
1. Connect mamos to free RJ45 port in router – use straight ethernet cable



2. Download Tibbo software and install it

[TDST Tibbo software for Windows](#)

3. Run Tibbo Connection Wizard as Administrator



- 4. Select the first option, i.e. *Create a link between a Virtual Serial Port and Device Server*
- 5. *Create new VSP* (and select port number, i.e. COM9)
- 6. Press *Select from the list*

The image shows three configuration panels. The first panel, 'Select the kind of link you wish to create', has four radio button options: 'Create a link between a Virtual Serial Port and a Device Server' (selected), 'Configure a Device Server for direct communications with an application on this PC', 'Create a link between two Device Servers', and 'Finish remote job'. The second panel, 'Specify the Virtual Serial Port', has two radio button options: 'Select existing VSP' and 'Create new VSP' (selected). Below is a 'Port name:' dropdown menu with 'COM9' selected. The third panel, 'Specify the Device Server', has two radio button options: 'Device Server is not accessible from this PC' and 'Device Server is accessible from this PC' (selected). It includes a checked 'Enable MAC -> IP mapping' checkbox, a 'MAC-address:' field with '0 . 36 . 119 . 9 . 71 . 224', an 'Access method for Wizard configuration process:' dropdown with 'Out-of-Band (UDP)', and an 'Access port:' field with '65535'. A 'Select from the list...' button is highlighted with a red box.

- 7. Software will look for Tibbo modules in the LAN network. Select from the list a module you wish to connect to. Then press *Select*.
- 8. Select *Virtual Serial Port*

The screenshot shows the 'Auto-Discovery' window with an 'Address Book' tab. It contains a table with columns for Status, MAC, IP, and Owner/Device name. A single entry is listed with a status icon, MAC address '0.36.119.9.71.224', IP address '10.0.0.119 (local DHCP)', and an empty owner name. A red box highlights the 'Select' button in the right-hand toolbar.

Status	MAC	IP	Owner/Device name
	0.36.119.9.71.224	10.0.0.119 (local DHCP)	

The panel is titled 'Which side will have to send the data first?'. It contains three radio button options: 'Virtual Serial Port' (selected), 'Device Server', and 'Any side (Virtual Serial Port or Device Server)'.

9. Leave the rest of the settings by default

**Gateway and netmask settings for the Device Server**

There is no need to specify the gateway and netmask for this Device Server. This may be because:

- The Device Server is not going to establish outgoing connections, or;
- Both sides of this data link are located on the same network segment.

Don't show this screen in the future

**Specify transport protocol and listening ports**

UDP/IP transport protocol

TCP/IP transport protocol

Listening port on the VSP:

Listening port on the Device Server:

**Would you like to enable on-the-fly commands?**

No, disable on-the-fly commands

Yes, enable on-the-fly commands, use out-of-band access method

Yes, enable on-the-fly commands, use inband access method

10. Leave the rest of the settings by default  
11. Finish the wizard – virtual COM port is now installed in your PC – select it in order to communicate with mamos via mamos PC software

**Serial Settings for the Device Server**

There is no need to specify permanent communications parameters for the serial port of this Device Server. This is because you have enabled on-the-fly commands and the Virtual Serial Port will be adjusting serial port parameters as required by application.

Don't show this screen in the future

Tibbo Connection Wizard is ready to set up the link. The following programming will be applied:

**DEVICE SERVER**

Routing mode: Server

Transport protocol: TCP

Local port: 1001

On-the-fly commands: Enabled

Flow control: 1- Local

Baud rate: 7- 115200 bps

Parity: 0- None

Data bits: 1- 8 bits

\*All other Settings as per their default values

**VIRTUAL SERIAL PORT (COM1)**

Routing mode: Client

Destination: 0.36.119.9.71.224:1001

Connect mode: On-data

Transport protocol: TCP

Press Configure to proceed...

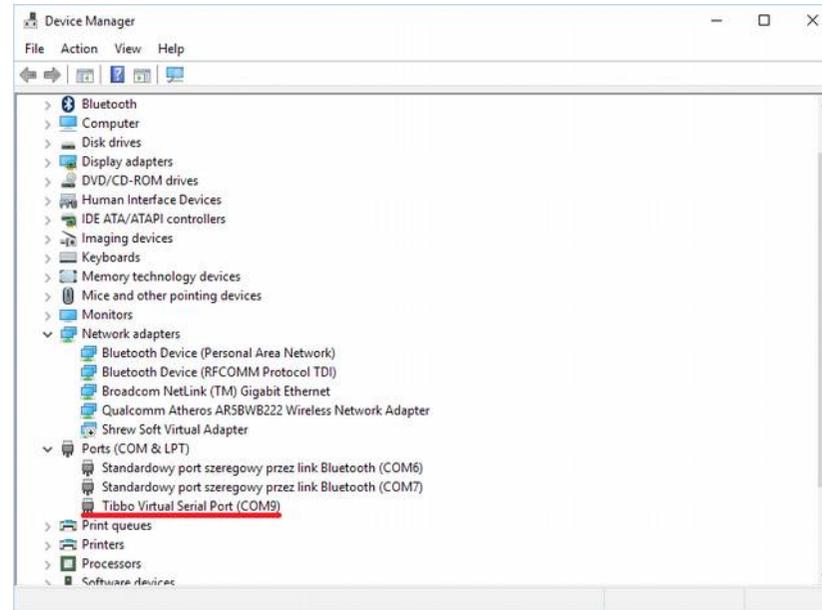
The Wizard has successfully completed the setup of the required connection

Click on the links below to review the setup on both sides of this connection:

[Open COM1 Settings](#)  
[Open DS \(10.0.0.119\) Settings](#)

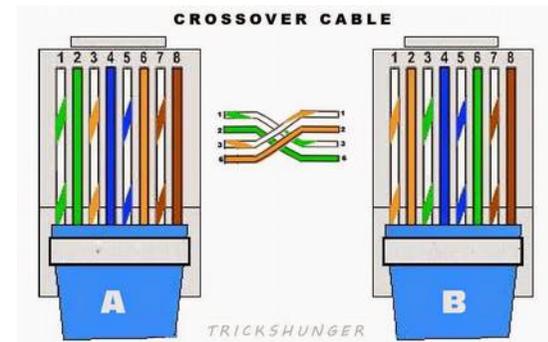
Click <Finish> to close the Wizard or <Restart> to create another connection

- 12. Proper installation may be verified in Windows device manager in Ports (COM & LPT section). A new entry should appear: Tibbo Virtual Serial Port

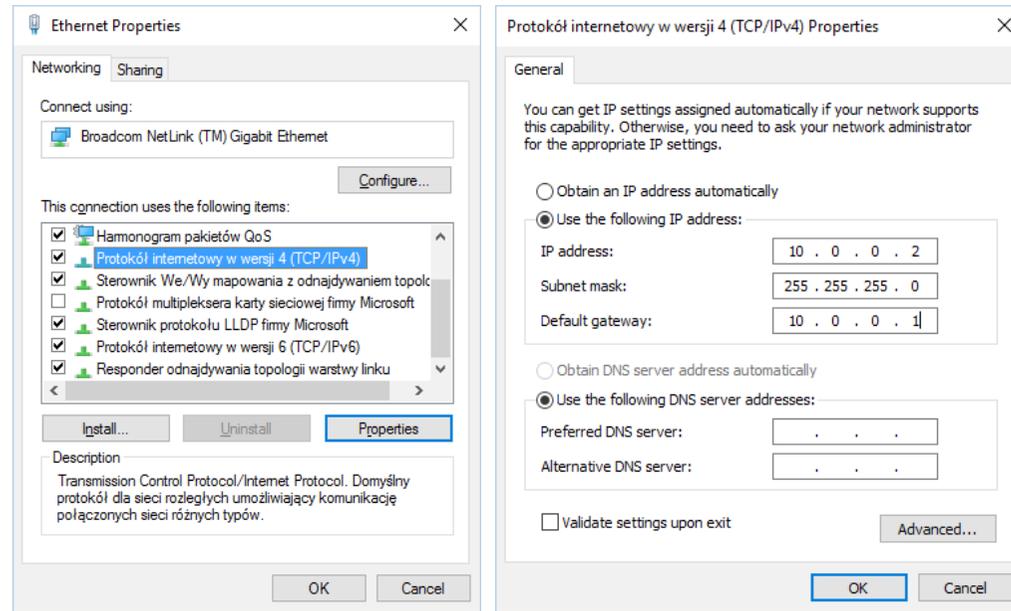


### 1.2. Mamos connected directly to PC (no DHCP)

- 1. Connect mamos to PC RJ45 port – use crossover ethernet cable



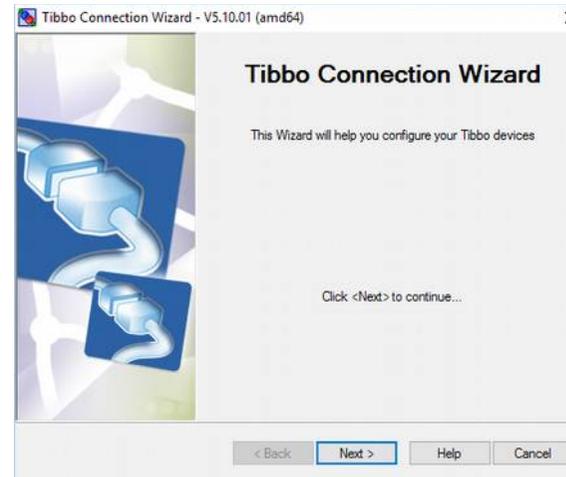
- 2. From Control Panel modify settings of your LAN adapter – TCP/IPv4 settings
- 3. Specify IP for: address, subnet mask and default gateway, i.e. 10.0.0.2



- 4. Download Tibbo software and install it

**Tibbo software for Windows**

- 5. Run Tibbo Connection Wizard as Administrator



- 6. Select the second option, i.e. *Create a Device Server for direct communications with an application on this PC*
- 7. *Create new VSP* (and select port number, i.e. COM9)
- 8. Press *Select from the list*

The image shows three panels of a configuration wizard:

- Select the kind of link you wish to create:** Radio buttons for:
  - Create a link between a Virtual Serial Port and a Device Server
  - Configure a Device Server for direct communications with an application on this PC** (selected)
  - Create a link between two Device Servers
  - Finish remote job
- Specify the Virtual Serial Port:** Radio buttons for:
  - Select existing VSP
  - Create new VSP** (selected)Port name: COM9 (selected in dropdown)
- Specify the Device Server:** Radio buttons for:
  - Device Server is not accessible from this PC
  - Device Server is accessible from this PC** (selected)Enable MAC -> IP mapping:   
MAC-address: 0 . 36 . 119 . 9 . 71 . 224  
Access method for Wizard configuration process: Out-of-Band (UDP) (selected in dropdown)  
Access port: 65535  
**Select from the list...** (button highlighted with a red box)

- 9. Software will look for Tibbo modules in the LAN network. Because PC do not send DHCP signals, Tibbo module will be assign IP address 1.0.0.1. Select from the list a module you wish to connect to. Then press Settings.
- 10. In Settings window: Disable DHCP and manually set IP address, i.e. 10.0.0.3

The image shows two screenshots from the software interface:

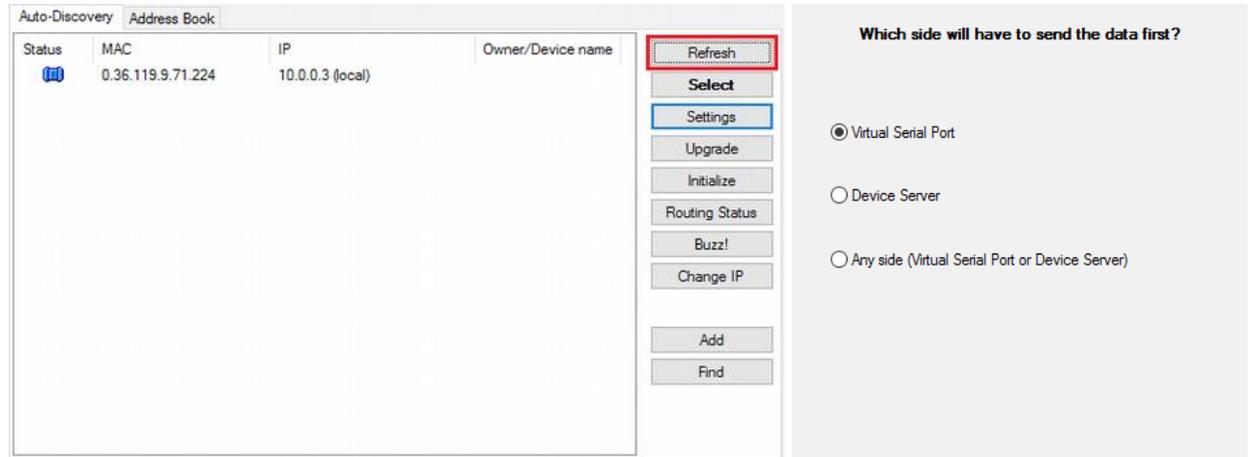
**Auto-Discovery / Address Book:** A table with columns: Status, MAC, IP, Owner/Device name. A single entry is shown with MAC 0.36.119.9.71.224 and IP 1.0.0.1 (local DHCP). The 'Settings' button is highlighted with a red box.

Status	MAC	IP	Owner/Device name
	0.36.119.9.71.224	1.0.0.1 (local DHCP)	

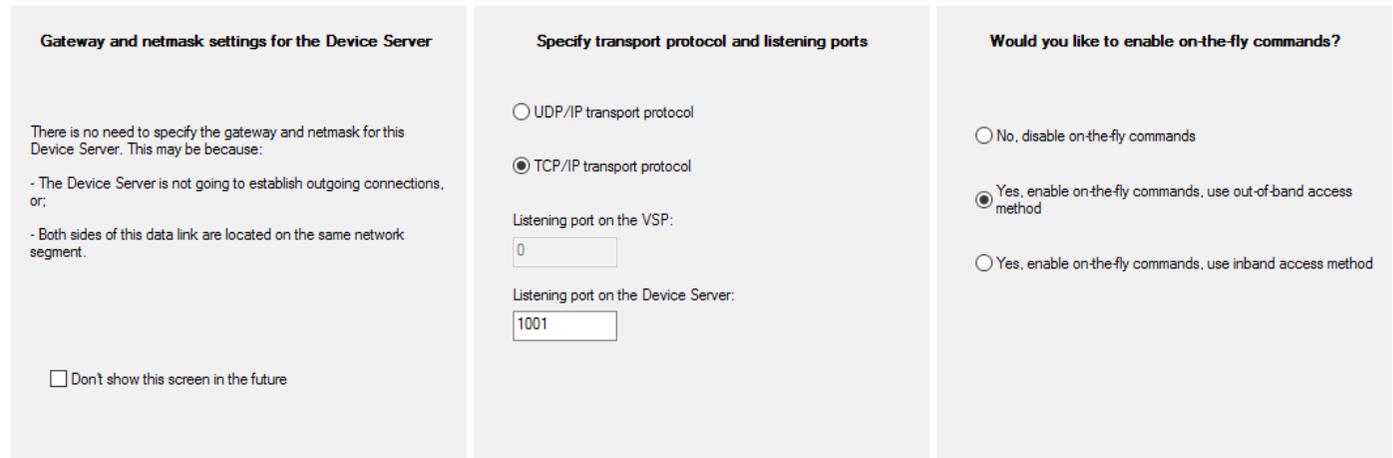
**Settings: DS <V3.72+NL>:** A configuration window for network settings. The 'DHCP' setting is set to '0- Disabled' and the 'IP-address' is set to '10.0.0.3'. Both are highlighted with a red box.

Network	Connection	Serial port	Outbound packets	All
Owner name				
Device name				
MAC-address		0.36.119.9.71.224		
DHCP		0- Disabled		
IP-address		10.0.0.3		
Port		1001		
Registration at dDNS Server		0- Disabled		
dDNS Server IP-address		(irrelevant)		
dDNS Server port		(irrelevant)		
Auto-registration on Link Serv		0- Disabled		
PPPoE mode		0- Disabled		
PPPoE login name		(irrelevant)		
PPPoE login password		(irrelevant)		
Gateway IP-address		10.0.0.1		
Subnet mask		255.255.255.0		

- 11. Press refresh: same module should be found with the previously assigned IP address
- 12. Select *Virtual Serial Port*



- 13. Leave the rest of the settings by default



- 14. Leave the rest of the settings by default
- 15. Finish the wizard – virtual COM port is now installed in your PC – select it in order to communicate with mamos via mamos PC software

The screenshot shows three panels of the Tibbo Connection Wizard. The first panel, titled "Serial Settings for the Device Server", contains the text: "There is no need to specify permanent communications parameters for the serial port of this Device Server. This is because you have enabled on-the-fly commands and the Virtual Serial Port will be adjusting serial port parameters as required by application." and a checkbox "Don't show this screen in the future". The second panel shows the wizard is ready to set up the link and lists the following parameters:

DEVICE SERVER	
Routing mode:	Server
Transport protocol:	TCP
Local port:	1001
On-the-fly commands:	Enabled
Flow control:	1- Local
Baud rate:	7- 115200 bps
Parity:	0- None
Data bits:	1- 8 bits
*All other Settings as per their default values	
VIRTUAL SERIAL PORT (COM1)	
Routing mode:	Client
Destination:	0.36.119.9.71.224:1001
Connect mode:	On-data
Transport protocol:	TCP

Below the table is the text "Press Configure to proceed...". The third panel states: "The Wizard has successfully completed the setup of the required connection" and provides links to "Open COM1 Settings" and "Open DS (10.0.0.119) Settings". It also instructs the user to "Click <Finish> to close the Wizard or <Restart> to create another connection".

- 16. Proper installation may be verified in Windows device manager in Ports (COM & LPT section). A new entry should appear: Tibbo Virtual Serial Port

