

MSO-MBT3

Serial to Ethernet Device

This Step-by-step guide explains how to get started using the MSO-MBT3 Serial to Ethernet converter.

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Powering the converter.

The MSO-MBT3 converter can be powered by a 5 to 36VDC 1.5A (max) voltage by using a standard connector jack size of 5.5 x 2.1 x 11.5mm or through screw terminals.

When power is applied to the module the red "Power" LED should be solid ON and after the module has booted and is ready the green "Ready" LED should flash.

A standard 110-240VAC / 5VDC power adapter (included) can be used to power the module.





Accessing the parameters using a web browser.

Connect the converter to your computer using a standard Ethernet cable.

Make sure the network connection to the MSO-MBT3 is set to a static IP address in the same subnet as the MSO-MBT3 such as 192.168.0.xxx as shown below.

eperal	
eneral	
You can get IP settings assign this capability. Otherwise, yo for the appropriate IP setting Obtain an IP address au	ned automatically if your network supports u need to ask your network administrator is. itomatically
Ouse the following IP add	íress:
IP address:	192.168.0.5
Subnet mask:	255.255.255.0
Default gateway:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Preferred DNS server:	
Alternate DNS server:	
	exit
Validate settings upon e	Advanced
Validate settings upon e	
Ualidate settings upon e	OK Cancel
Validate settings upon e	OK Cancel
Validate settings upon o	OK Cancel
Validate settings upon on a setting supon of a setting setting supon of a setting set	OK Cancel

Warning: Your user name and password will be sent using basic authentication on a connection that isn't secure.

	admin
8	
	Kemember my credentials

The Default IP address of the MS0-MBT3 is:

IP: 192.168.0.7

Netmask: 255.255.255.0

You will now see the login screen.

User: admin Password: admin



After the login screen the Status page should show up:

firmware revision: v30	008	
PYTHI/ data trai	A TECHNOLOGIES nsformation solutions	www.pythiatech.com
Current Status	Properties	help 🔨
Local IP Config	Module Name: MS0-MBT3	Run time:
RS232	Firmware Revision: 3008	run time means the minutes since
RS485	Current IP Address: 192.168.0.77	latest reboot TX/RX Count:
Web to Serial	MAC Address: d8-b0-4c-00-d6-0d	TX/RX count give
Misc Config	Run Time: Oday: Ohour: Omin	the total byte we
Reboot	TX Count(ETH) : 0/0/0 bytes	received or send.
	RX Count(ETH) : 0/0/0 bytes	
	Conn Status(ETH) : LISTEN/LISTEN/LISTEN/	
		×
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Setting the Local IP Address

Once the home page of the device is opened, select the "Local IP Config" tab from the left hand navigation a shown. The following screen should appear.

firmware revision: v30	008	
data trai	A TECHNOLOGIES Insformation solutions	www.pythiatech.com
Current Status	Properties	help 🔨
Local IP Config	IP type: Static IP	• IP type:
RS232 RS485	Static IP: 192 . 168 . 0 . 77	StaticIP or DHCP StaticIP Module's static ip
Web to Serial	Submask: 255 . 255 . 255 . 0	Submask usually
Misc Config		255.255.255.0 • Gateway
Reboot	Gateway: 192 . 168 . 0 . 254	Usually router's ip address
	Save Cancel	~
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Once the configuration is changed, select the "Save" button and you will be prompted to reboot the device as shown below.

firmware revision: v3	008		
data tra	A TECHNOLOGIES nsformation solutions	www	.pythiatech.com
Current Status	Reboot	/Reset	help 🔨
Local IP Config	Reboot/Reset Module	Reset Module	Reboot:
RS232			Click to make your config take
RS485			effect



Setting the Parameters for Port 0 (RS232)

Select the RS-232 tab from the left hand navigation and adjust the properties as necessary. When finished select the "Save" button and reboot he module as instructed.

Current Status	Properties	help
_ocal IP Config	Baud Rate: 9600 bps(600~1024000)	• baud
:S232	Data Size: 8 🗸 bit	232 and 485 can
S485	Parity: None V	115200bps
(ah ta Sarial	Stop Bits: 1 V bit	 flowcontrol and RS485
	Flow Control and RS485: None	default RS485
lisc Config	Local Port Number: 502	 local port 1x65535 when
eboot	Remote Port Number: 23	TCP Client, set
	Work Mode: TCP Server V ModbusTCP V	use random local
	TCP Server detail: default ✔ type	port
	Remote Server Addr: 192.168.0.201 [N/A]	 remote port 1~65535
	Timeout: 0 seconds (< 256, 0 for no timeout)	packet
	UART packet Time: 0 ms (< 256)	default 0/0,
	UART packet length: 0 chars (<= 1460, 0 for no use)	means automatic packet
	Sync Baudrate(RF2217 similar): 🗹	mechanism; you can modify it as a
	Save Cancel	none-zero value
	Cure Cure	

Baud Rate - type in the defined baud rate of the attached serial device. Range: 110-256Kbps
Data Size - select the defined data size of the attached serial device. Range: 5,6,7,8
Parity - select the defined parity of the attached serial device. Range: Odd, Even, Mark, Space
Stop Bits - select the defined stop bits of the attached serial device. Range: 1,2
Flow Control and RS485 - select the correct flow control.

Range: None, Hardware and RS485. (Typically set to None)

Local Port - set the local IP port for the device you are emulating.

Range: 1 – 65535 (Port 502 is default for Modbus TCP communications)

Remote Port - when in Client mode, set the port of the remote device you intend to communicate Range: 1 – 65535 (*Port 502 is default for Modbus TCP communications*)

Work Mode (left) - select Client or Server mode operations on left.

Range: UDP Mode, TCP Client, UDP Server, TCP Server (Typically set for TCP Server)

Work Mode (right) – select Modbus TCP for Modbus RTU to Modbus TCP Operation. Otherwise = None Range: None, Modbus TCP (Typically set Modbus TCP)

```
Remote Server Address – when in Client mode (Work Load left), define the IP address of the remote device you intend to communicate
```

Timeout – enter a value < 256. A value of 0 dictates no timeout. (default = 0)

UART Packet Time – enter value < 256. (default = 0)

UART Packet Length – enter a value <=1460 (default = 0)

Sync Baudrate (RF2217 similar) - (default = checked)



Setting the Parameters for Port 1 (RS485)

Select the RS-485 tab from the left hand navigation and adjust the properties as necessary. When finished select the "Save" button and reboot he module as instructed.

Current Status	Properties	help	
Local IP Config RS232 RS485 Web to Serial Misc Config Reboot	Baud Rate: 9600 bps(600~1024000) Data Size: ⑧ ♥ bit Parity: None ♥ Stop Bits: 1♥ bit Flow Control and RS485: None ♥ Local Port Number: 502 Remote Port Number: 26 Work Mode: TCP Server ♥ None ♥ TCP Server detail: default ♥ type Remote Server Addr: 192.168.0.201 [N/A] Timeout: 0 seconds (< 256, 0 for no timeout) UART packet Time: 0 ms (< 256) UART packet length: 0 chars (<= 1460, 0 for no use) Sync Baudrate(RF2217 similar): ♥	 baud 232 and 485 can only up to 115200bps flowcontrol and RS485 default RS485 local port ac65255, when TCP Client, set this to 0 means use random local port remote port remote port packet time/length default 0/0, means automatic packet mechanism; you can modify it as a none-zero value 	
	Save Caller		

Baud Rate - type in the defined baud rate of the attached serial device. Range: 110-256Kbps
Data Size - select the defined data size of the attached serial device. Range: 5,6,7,8
Parity - select the defined parity of the attached serial device. Range: Odd, Even, Mark, Space
Stop Bits - select the defined stop bits of the attached serial device. Range: 1,2
Flow Control and RS485 - select the correct flow control.

Range: None, Hardware and RS485. (Typically set to RS485)

Local Port - set the local IP port for the device you are emulating.

```
Range: 1 – 65535 (Port 502 is default for Modbus TCP communications)
```

Remote Port - when in Client mode, set the port of the remote device you intend to communicate Range: 1 – 65535 (*Port 502 is default for Modbus TCP communications*)

Work Mode (left) – select Client or Server mode operations on left.

Range: UDP Mode, TCP Client, UDP Server, TCP Server (Typically set for TCP Server)

Work Mode (right) – select Modbus TCP for Modbus RTU to Modbus TCP Operation. Otherwise = None Range: None, Modbus TCP (Typically set Modbus TCP)

Remote Server Address – when in Client mode (Work Load left), define the IP address of the remote device you intend to communicate

Timeout – enter a value < 256. A value of 0 dictates no timeout. (default = 0)

UART Packet Time - enter value < 256. (default = 0)

```
UART Packet Length – enter a value <=1460 (default = 0)
```

Sync Baudrate (RF2217 similar) - (default = checked)

Setting the Web to Serial Parameters

Note: This function is not supported at this time.

firmware revision: v30	08	
data trai	TECHNOLOGIES asformation solutions	www.pythiatech.com
Current Status	Proprerties	help 🔨
Local IP Config	Websocket connection: 0	 web to serial
RS232	Receive hex data	this page use websocket to
RS485		transmit data between webpage
Web to Serial		and uart
Misc Config		~
Reboot		
		^
		~
	send ascii data send hex data clear	
		Ť
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Setting Miscellaneous Configuration Properties

Select the Misc Config tab from the left hand navigation and adjust the properties as necessary. When finished select the "Save" button and reboot he module as instructed.

Current Status	Droportion	hala
Local IP Config RS232 RS485 Web to Serial Misc Config Reboot	Module name: MS0-MBT3 Reserved: 6432 Webserver port: 80 Module id(use for indentify modue): 1 (1~65535) Module id type: 0 (0/1/2/3) MAC address: dB-b0-4c-00-d6-0d User name: admin Pass word: admin Buffer data before connected: Reset timeout: 0 second Save Cancel	 medpine name max length is 15 char Web port default 80 ID and ID type we could use it for D2D Mac address user could modify this MAC address Buffer data Buffer data default not checked, buffer data before tcp connection established reset timeout default 0, 0-60 mean no timeout, > 60 mean when there is no data received during this time, the device will restart

Module Name – The user may elect to change the device name as it appears on the home page.

Reserved – DO NOT CHANGE THIS PROPERTY.

Webserver Port – The user may elect to change the assigned port of the web page (default = 80)

Module ID – The user may elect to change the ID of the module. When using Modbus TCP, this equates to the Slave ID.

Module ID Type – DO NOT CHANGE THIS PROPERTY.

MAC Address: Users may elect to change the MAC address of the device. ONLY EXPERIENCED IT PROFESSIONALS SHOULD CONSIDER CHANGING THIS PROPERTY.

User Name and Password: Users may elect to change the default user name and password for the device. (Default = admin / admin)

Buffer data before connected – buffer data before the TCP connection established (default = unchecked)

Reset Timeout – A value of > 60 means that when no data received during this time, the device will automatically restart. A value of < 60 equates to the timeout being disabled.

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