

OPEN PROTOCOL FOR ELECTRICAL NETWORKS

TRUSTED IP RANGE

Brand	ltem	
Legrand	573992, 03565	
BTicino	MH200, MH200N	
	F453, F453AV,	
	F452, F452V	

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INTRODUCTION

This tutorial will explain how to set the trusted IP range, used by the unofficial software BTicino and Legrand to communicate with My Home Gateways (Web Server; Scenario Scheduler).

The Gateway must know the IP addresses of all the devices, such as smartphones, tablets, pc, etc., which want to establish a connection.

Up to now it isn't expected any authentication service.

Official software uses an authentication service to let, only certified people, procedure with the configuration or modifying it. Due to this fact that the certification is based on a private key isn't allowed its diffusion.

WHAT IS AN IP ADDRESS

The IP (Internet Protocol) address is a numerical label assigned to every devices in order to enable communication into an Ethernet network.

TRUSED IP RANGE

The IP range enables communication among the devices, used by the users, and the My Home gateways. Deeply, the trusted IP range is an aggregate of IP addresses which allows the connection to the network without the authentication service.

NOTES

Open the IP range is not only a choice that simplifies the communication among the users and the Gateway but also a necessity to converse with third part system, such as the Bang & Olufsen gateway.

RANGE CONFIGURATION

It is possible to add IP addresses in two different ways: through the configuration software or via Administration Web Pages.

SOFTWARE CONFIGURATION

This procedure can be done in all the software corresponding to the gateways. In this section it's described the MH200N configuration software (the procedure it's same for every gateways).

This is the initial page:

* TIMH200N			_ = X
File Tools Language ?			
े 🕤 🔒 🤌 🕼 🍕 👑 •			bticino
😑 🖏 MH200N 🖨 🐺 Network Connection	- MH200N		
Ethernet	Project Name	MH200N	
Clock Clock Clock Curity Authentication Curves sension IP Address enabling Remote commands Remote access OPEN command block Plant Finterfaces Actuators Sensors Scenario Editor	MH200N		
	MH2UUN Device name		
Solution (1998)	Project not saved		English 🔐

In the left part there is a tree menu where the most important features are presented.

Enlarge the security section and choose "IP address enable"

* TIMH200N			_ = X
File Tools Language ?			
🖹 🚳 🖬 🤌 🦑 🍕 👑 *			bticino
■ ♣ MH200N ■ ➡ Network Connection	IP address range 1		_
🔚 🐺 Ethernet	Enabling	🔀 Disabled	
General parameters	Value	1-255.0-255.0-255.1-254	
Univocal codes	IP address range 2		
Authentication	Enabling	Disabled	
Web session	Value	1-255.0-255.0-255.1-254	
Remote commands	😑 IP address range 3		
OPEN command block	Enabling	Disabled	
	Value	1-255.0-255.0-255.1-254	
Actuators	😑 IP address range 4	IP address range 4	
Scenario Editor	Enabling	Disabled	
	Value	1-255.0-255.0-255.1-254	
	IP address range 5		
	Enabling	Disabled	~
	IP address range 1		
	Project not saved		English 🤐

The default setting puts all the IP addresses as disabled; to enable them you have to click on the red icon and automatically it will change on a green tick followed by the word "Enabled".

\Rightarrow TIMH200N			_ = ×
File Tools Language ?			
📑 🗐 🔒 🍕 🖗 🍕 😃 र			bticino
Section MH200N	IP address range 1		<u>_</u>
🖳 🖳 🕎 Ethernet	Enabling	🥏 Enabled	
General parameters	Value	192-192.168-168.1-1.101-110	
Univocal codes	IP address range 2		
	Enabling	🔀 Disabled	
IP Address enabling	Value	1-255.0-255.0-255.1-254	
Remote commands	IP address range 3		
OPEN command block	Enabling	🔀 Disabled	
Therfaces	Value	1-255.0-255.0-255.1-254	
Actuators	IP address range 4		
Scenario Editor	Enabling	Disabled	
	Value	1-255.0-255.0-255.1-254	
	IP address range 5		
	Enabling	Disabled	
	Value Enter IP address range		
	Project not saved		English 🔐

If the IP addresses are wrong, by clicking the button it is possible to change them setting the true ones.

TIMH200N _ = x File Tools Language ?] 🕤 🕞 🔌 🤌 🖙 🖓 📲 ticino 🖃 🐔 MH200N IP address range 1 🚊 🐺 Network Connection - 🕎 Ethernet 📀 Enabled Enabling 🖨 🥋 General parameters Clock 192-192.168-168.1-1.101-110 ... IP address range 2 Security Authentication Web session J IP Address enabling Network address range 🖮 🇑 Remote commands Insert the network address (1) Remote access OPEN command block 🖨 🔛 Plant 🕂 🐺 Interfaces 192 168 • . Actuators 168 • • . 촂 Scenario Editor Confirm 💥 Cancel Value Enter IP address range Project not saved English

This procedure can be repeated until you have enabled all the IP you need.

NTIMH200N			_ = X
File Tools Language ?			
📑 🚳 🖶 🤌 🦑 🍕 😃 🔹			bticino
MH200N Setwork Connection	🗉 IP address range 1		
T	Enabling	🥏 Enabled	
General parameters	Value	192-192.168-168.1-1.101-110	
Univocal codes	🗉 IP address range 2		
Authentication	Enabling	🥏 Enabled	
Web session	Value	192-192.168-168.1-1.120-121	
Remote commands	IP address range 3		
OPEN command block	Enabling	📀 Enabled	
Therfaces	Value	81-81.0-255.0-255.1-254	
Actuators	IP address range 4		
Scenario Editor	Enabling	🔀 Disabled	
	Value	1-255.0-255.0-255.1-254	
	😑 IP address range 5		
	Enabling	Disabled	~
	Value Enter IP address range		
 Image: Second sec	Project not saved		English 🞎

WEB PAGE CONFIGURATION

When the browser starts, digit the gateway IP address in the navigation bar. Simultaneously this page will be displayed.

	TIF453AV	MYHOME
PDA Entry		bono
SCENARIOS		
LIGHTING		
AUTOMATISM		
APPLIANCE	Login	P
ALARM (N	Password	
EETV 🌽		er
ANSWERENG SYSTEM		
CONTROL		
	Access allowed only to a Copyright@ BU	uthonsed upers lizine@

This procedure is reachable only if you are logged as administrator user. The Configuration box appears in the function bar developed in three pages:

- System
- Answering system (only for F453AV)
- Language

	TIF453AV MY HO	VE ticino
SCENARIOS 🔅	IP ADDRESSES WITHOUT OPEN AUTHENTICATION No IP range specified	
LIGHTING	CONFIGURATION OF NEW IP RANGE	
AUTOMATISM	First IP:	
HOUSEHOLD APPLIANCE	Second IP:	
ALARM	CONFIGURATION DATE / TIME DIAGNOSTIC IF	RANGE
ссту 🌽		
ANSWERING SYSTEM		
CONFIGURATION		
		14150
(SYSTEM LANGUAGE ANSWERING SYSTEM	

www.myopen-legrandgroup.com

To open the page click on "IP RANGE" and insert the addresses which will enable connection without the need for a password.

	TIF453AV MY HOME	
SCENARIOS 🐞	WEB ACCESS E-EMAIL ADDRESS	
LIGHTING	Password: bticino SAFE CAMERAS ENABLING SETTING	
AUTOMATISM	Enabling	
HOUSEHOLD APPLIANCE	Password:CONFIGURATION ETHERNET	
ALARM 🜘	IP: 192 168 1 29	
ссти 🧈	Subnet Mask: 255 255 0 Gateway: 192 168 1 1	
ANSWERING SYSTEM	DNS 1:	
TEMPERATURE CONTROL	DNS 2:	
CONFIGURATION	CONFIGURATION DATE / TIME DIAGNOSTIC IP RANG	E
(SYSTEM LANGUAGE ANSWERING SYSTEM	×.
		/

When you confirm you may be wait a little to let the system acquire the new range

EXAMPLE

PC LAN Network:

The picture below explains how computers can communicate with a My Home gateway inside a LAN network.



DESCRIPTION:

- The computer marked by IP: 192.168.1.233 can communicate with the gateway because it is in the Trusted Range IP while it is running an unofficial software.
- The computer marked by IP: 192.168.1.234 can communicate with the gateway because it is in the Trusted Range IP while it is running an unofficial software.
- The computer marked by IP: 192.168.1.127 can communicate with the gateway because it isn't in the Trusted Range IP but it is running an official software.
- The computer marked by IP: 192.168.1.229 can't communicate with the gateway because it isn't in the Trusted Range IP while it is running an unofficial software.

TABLET AND SMARTPHONE

This picture displays how tablets and smartphones can connect with a My Home gateway inside a LAN network.



DESCRIPTION:

- The tablet marked by IP: 192.168.1.233 can communicate with the gateway because it is in the Trusted Range IP while it is running an unofficial software.
- The tablet marked by IP: 192.168.1.234 can communicate with the gateway because it is in the Trusted Range IP while it is running an unofficial software.
- The smartphone marked by IP: 192.168.1.110 can't communicate with the gateway because it isn't in the Trusted Range IP while it is running an unofficial software.
- The tablet marked by IP: 192.168.1.260 can communicate with the gateway because it isn't in the Trusted Range Ip but it is running an official software.
- The smartphone marked by IP: 192.168.1.110 can't communicate with the gateway because it isn't in the Trusted Range IP while it is running an unofficial software.

COMMUNCATION AMONG DEVICES CONNECTED BY LAN AND BY WAN

Thanks to this picture you can understand the communication stream through a Lan and a Wan network. Particularly the tablet and the smartphone are connected to a My Home gateway through a WAN network; on the other hand the other device through a LAN one. As you may notice in the trusted IP range there is a large number of IP addresses because when you are connected in a WAN network your phone carrier might give you, every time, a different IP address so to be sure that your device could communicate with a My Home gateway you have two choices:

- Open a large IP range
- Use a VPN connection.



OPEN A LARGE TRUSTED IP RANGE

DESCRIPTION:

- The PC marked by IP: 192.168.1.134 can communicate with the gateway because it is in the Trusted IP range while it is running an unofficial software.
- The smartphone marked 2.112.16.28 can communicate with the gateway, even if it is connected to a WAN network because its IP is inside the trusted IP range.

• The tablet marked 2.112.10.18 can't communicate with the gateway because its IP isn't inside the trusted IP range.

VPN CONNECTION

VPN networks allow users to exchange information and files in a safe way due to the authentication process.

When you use a Virtual Private Network your device seems to have two different IP addresses. One is the external address given by the phone carrier and the other is the address that the device acquires when it tries to connect to the router.

Inside the router you have to associate to each device a small IP range, in order to maintain security.

At this point My Home Gateway sees only the IP address given by the router so it is enough to put those IP addresses in the Trusted IP range.



COMMUNICATION WITH THIRD PART INTEGRATED SYSTEM

In this picture is presented a kind of communication between a My Home gateway and a third part gateway in order to let the two system live together. In particular is presented system integrating "Bang & Olufsen" functions and My Home.



DESCRIPTION:

 All the devices are connected to their gateway, speaking their language. The B&O gateway is able to communicate with a My Home one thanks to the Open Web Net Language and to its IP address which is held in My Home Web server Trusted IP range.

GATAWAY INFORMATION

GATEWAYS THAT ALLOW THE FUNCTION

BTicino	Legrand	Version
MH200		2.1.2
MH200N	03565	All
F453AV	573992	All
F453		All
F452V		3.1.16
F452		3.1.16

GATEWAYS THAT ALLOW WEB PAGE SET UP

BTicino	Legrand	Version
MH200		No
MH200N	03565	All
F453AV	573992	2.1.7
F453		All
F452V		No
F452		No

IMPORTANT NOTE

- F452 F452V MH200N don't admit the web page configuration.
 - In case of wrong range configuration it is impossible to use the software through Ethernet.
 - You have to use the USB programming cable (3559) or the Serial one (335919).
- F453AV admits the web page configuration
 - In case of wrong range configuration you can use the USB cable (3559) or the Serial one (335919).
- It isn't possible to run Virtual Configurator on a PC while it is inside the trusted IP range.
- To be sure that your device in WAN can communicate with a My Home gateway, verify if the IP address that your phone carrier has given is configured in the trusted IP range.
- To always know your Modem Router IP address when you are outside from your LAN, it's suggested to use the service offered by Dynamic DNS: <u>www.dyndns.org</u>.