# Remote programming

Document number: PO-098-EN Version: 2.0 Date of publication: September 19, 2022

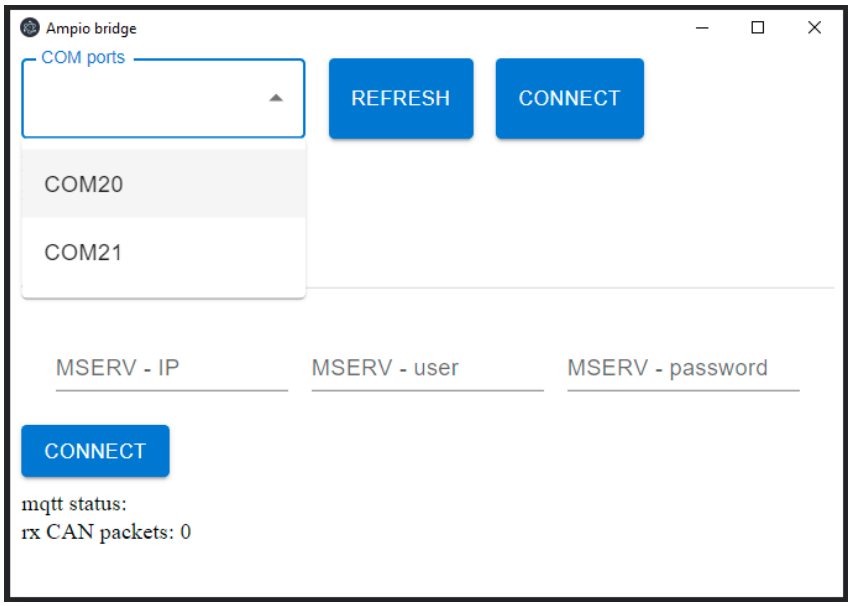
For remote programming to be possible, the following requirements must be met:

- M-SERV-s or M-SERV-3s module
- for M-SERV-3s modules, software of at least 11503 version
- Smart Home configurator, at least 5.0.0.4660 version
- MQTT version min. 4.15.4 (update is available e.g. via the *Ampio UNI* application, tab *Account->Diagnostics->update MQTT*)
- 2 M-PROG programmers
- access to the installation via the Ampio UNI mobile application

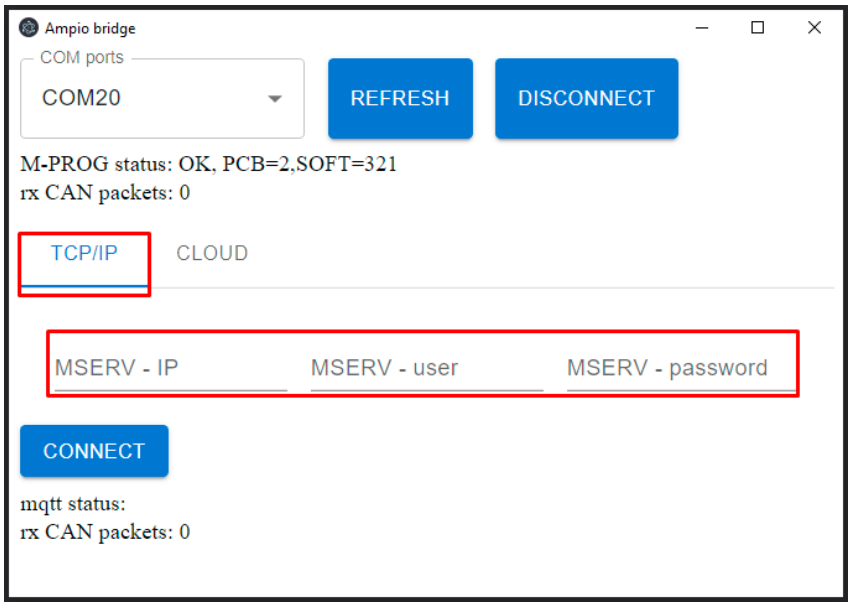
## Ampio Smart Home Configurator - remote connection

Having installed the correct updates, download the *Ampio-bridge* application from the installer zone. Once that is done, connect 2 M-PROG programmers to your computer and connect them with each other (CANH->CANH, CANL->CANL, GND->GND). It should be borne in mind that both programmers must have the latest software installed. In order to ensure that, it is advised to connect each programmer separately to your computer and lunch the Smart Home configurator ver. 5, which will automatically update the programmer's software.

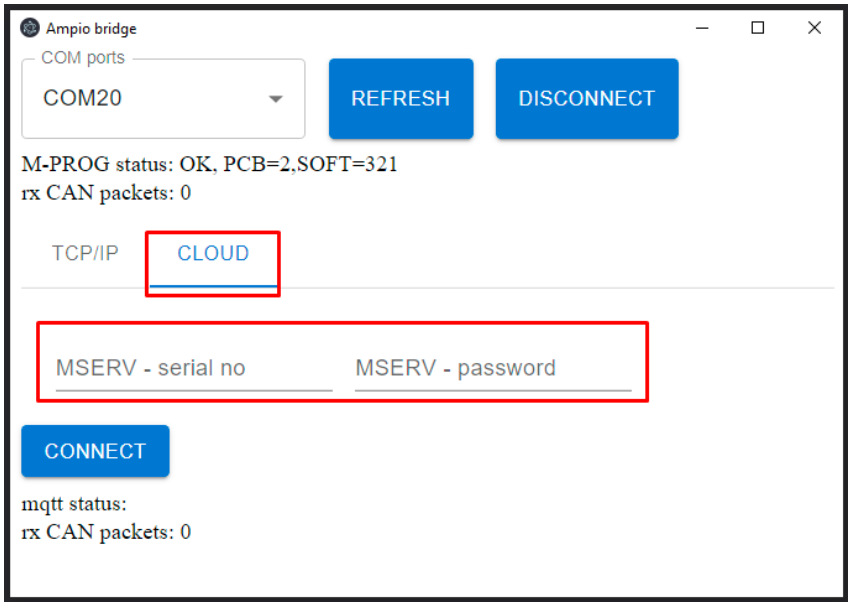
The next step is to launch the *Ampio-bridge* programme and select one of the two programmers from the list (COM port)



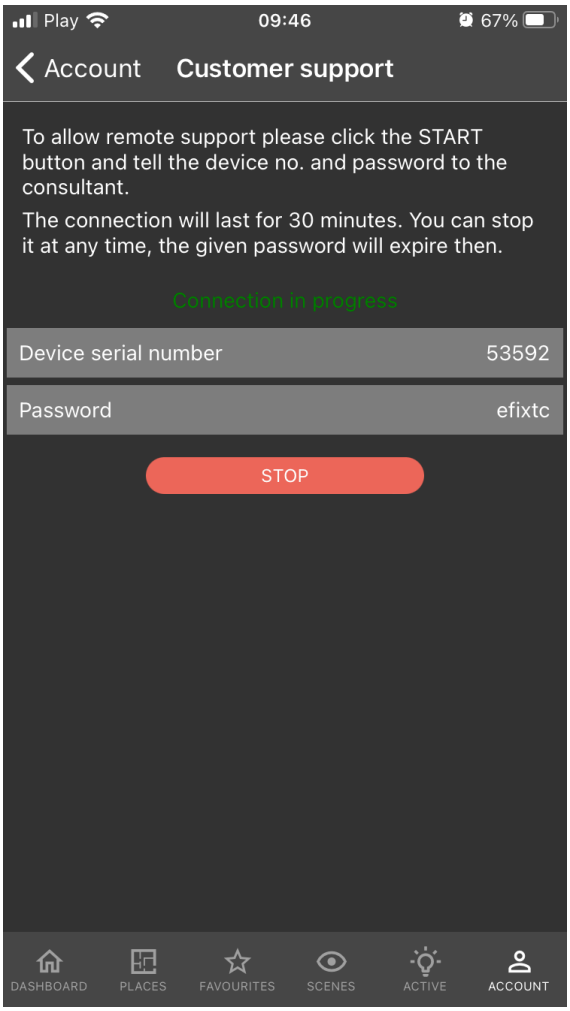

and then click *CONNECT*. The following options will be available: *TCP/IP*



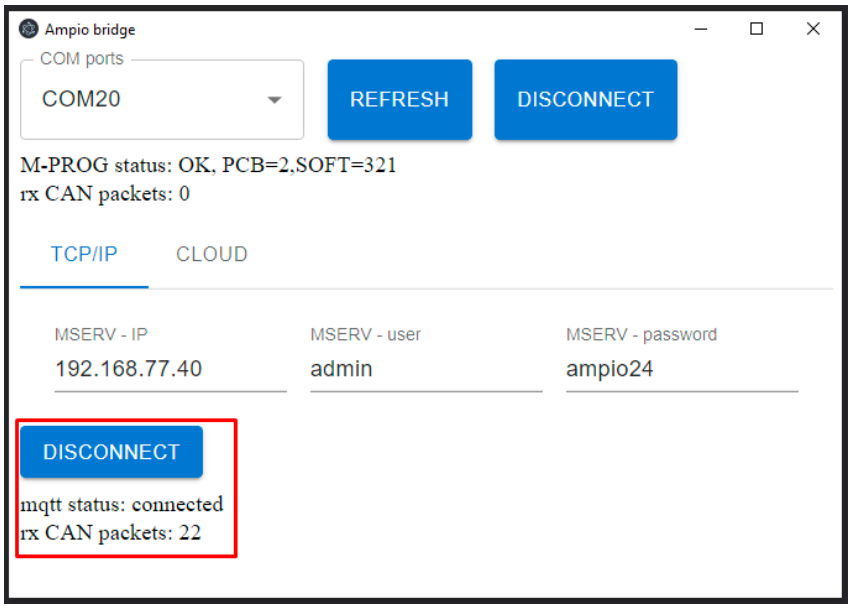

Select this option, if you want to connect using IP. The login and password credentials are the same as for the Smart Home Manager. The second option is *CLOUD*, which is used for connecting remotely.




In this case, you must provide the login and password that can be found in the Ampio UNI app under *account->remote support*. Once you get there, click *START* and copy the serial number and password over.



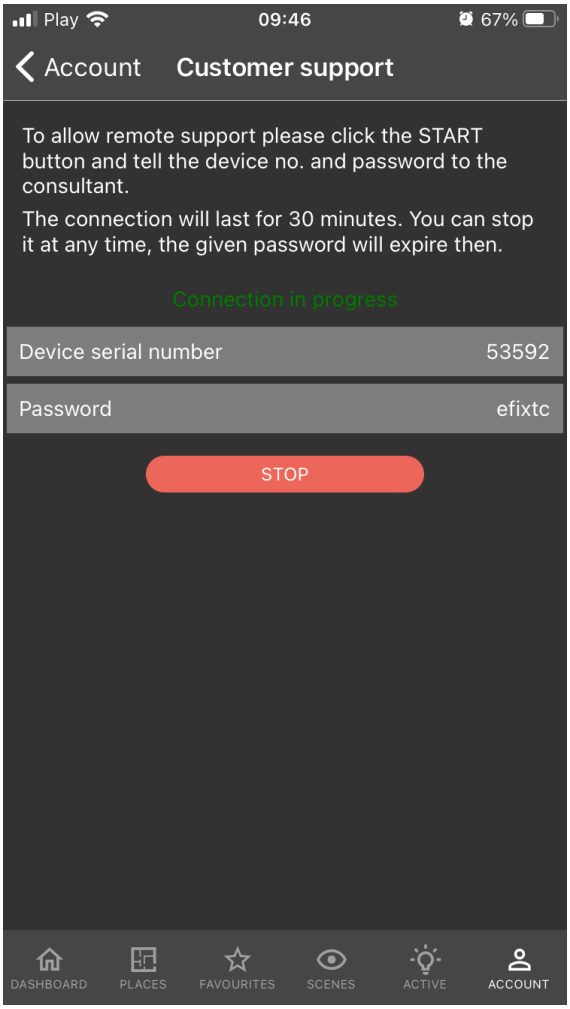

Next, click on *CONNECT* in the *Ampio-bridge*. If the connection is successful, you will see the following message: *mqtt status:connected*.



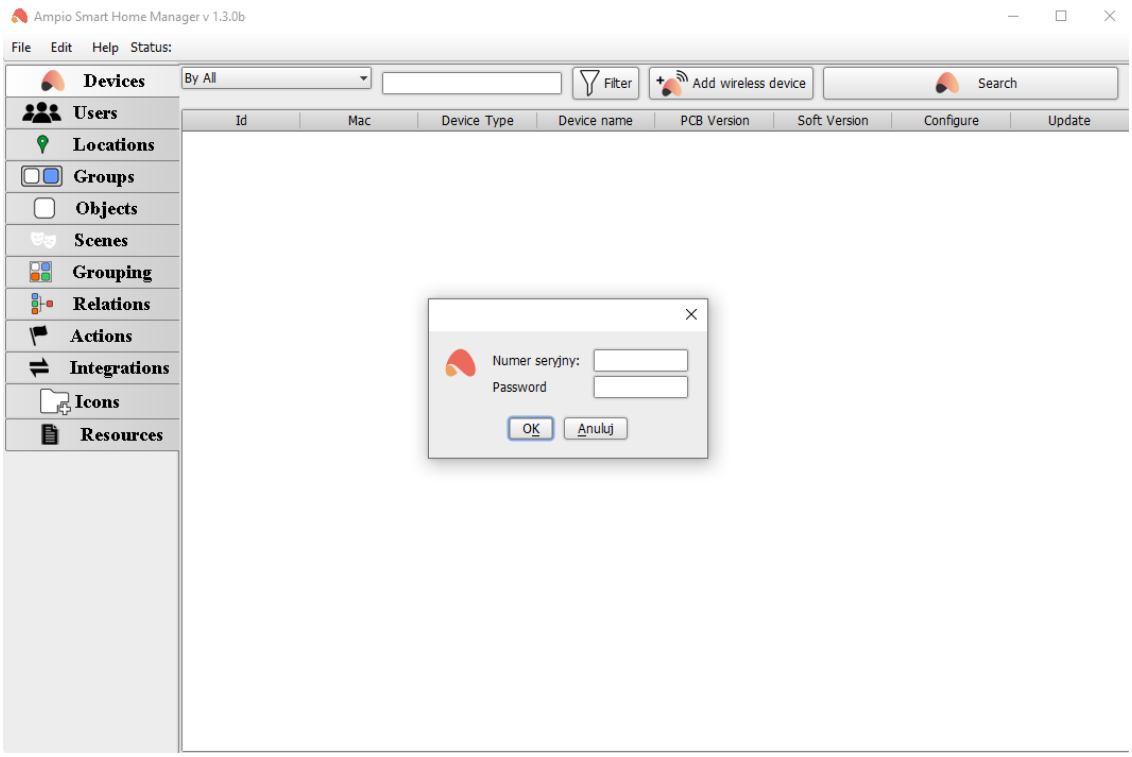

The last step is opening the Smart Home Configurator 5, which will discover the devices as if they were connected to the CAN programmer locally. As soon as that is done, you can commence your remote system configuration.

# Ampio Smart Home Manager - remote connection

First, generate a serial number and a password in the Ampio UNI app by going to *account->customer support*, and clicking *START*

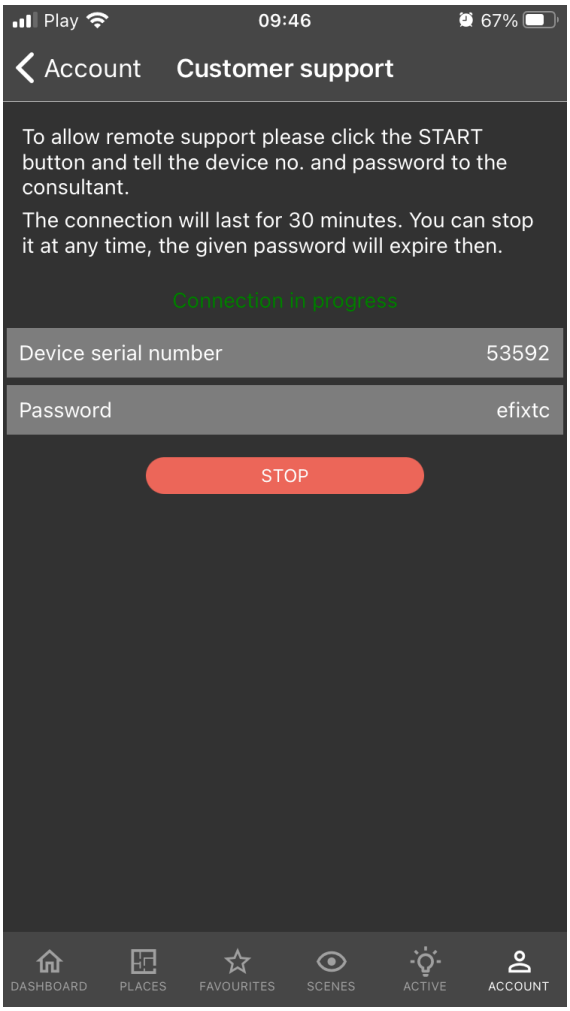



Then, launch the Smart Home Manager and navigate to the Support option.  Add the serial number and password, and confirm by clicking OK.

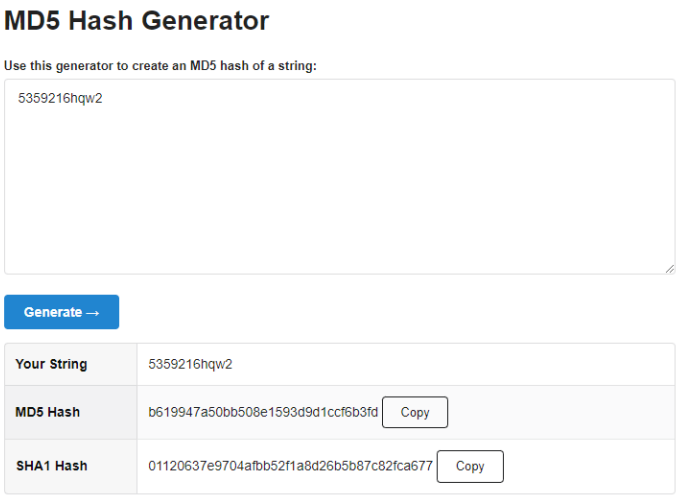



# Node-RED - remote connection

Generate a serial number and a password in the Ampio UNI app by going to *account->customer support*, and clicking *START*.




Then, in your browser, search for any website with an MD5 Hash Generator and enter your serial number and password as one string of characters.

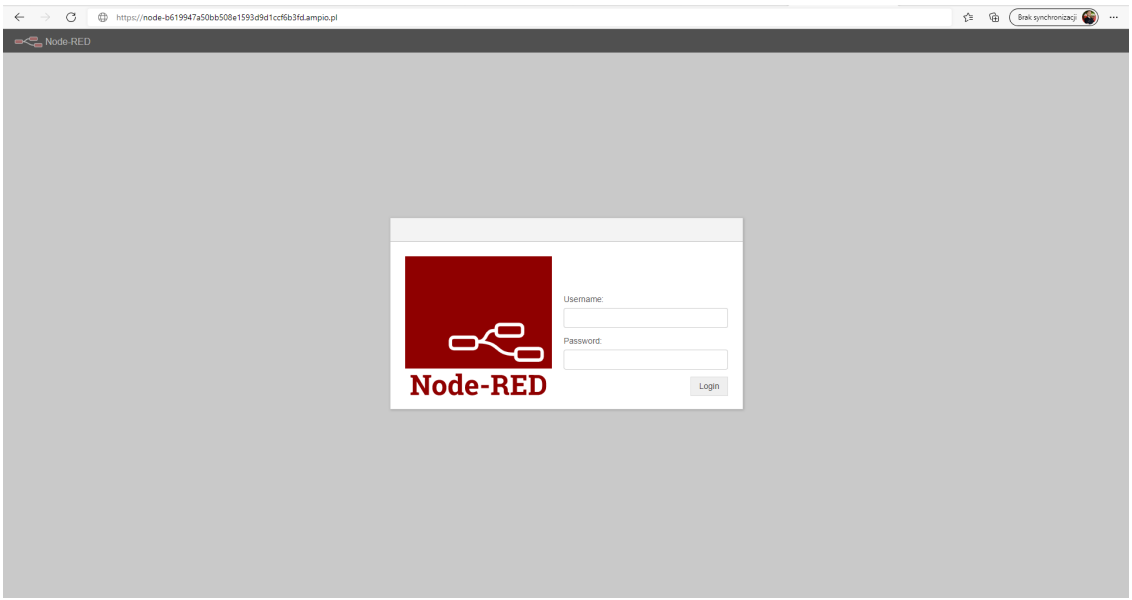



Copy the generated MD5 Hash.

In order to access Node-RED remotely, you must know the following link: https://node-[generated MD5 Hash].ampio.pl

In this example, it is: `https://node-b619947a50bb508e1593d9d1ccf6b3fd.ampio.pl`

Now, paste the link into your browser.


https://node-b61994a50bb508e1593d9d1ccf6b3fd.ampio.pl
Node-RED
Username:
Password:
Login
Node-RED