iDTRONIC
PROFESSIONAL RFID

R-EA-WR-ID500-DES-ET
13.56 MHz RFID Device
Hardware Description

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1 Introduction

1.1 Function

This RFID device contains the OEM-DES-M900-TTL Core Module. It uses the DESFire Family Communication Protocol.

1.2 Reference Documents

Communication Protocol: OEM-DES devices Communication Protocol_x.yy_EN.pdf

1.3 Additional Command for Relay Control

Command code: 0x03

Command format

50	00 05	03	FF 08	08/00	XX XX	ZZ
ACK	Length	CMD	fixed	Relay control	Relay control time	XOR

Segment description

ACK	Fixed as 0x50
Length	Fixed as 0x0005
CMD	Fixed as 0x03
0xFF08	Fixed parameter
Relay control	0x08: relay ON, 0x00: relay OFF
Relay control time in ms	Range from 0x0000~0xFFFF when it is 0x0000, that means time infinitely long
ZZ	XOR, check byte

Examples

Relay ON: >> 50 00 05 03 FF 08 08 00 00 A9
<< 50 00 00 03 53 – confirmation reply
Relay OFF: >> 50 00 05 03 FF 08 00 00 00 A1
<< 50 00 00 03 53 – confirmation reply
Relay ON for 256 ms: >> 50 00 05 03 FF 08 08 01 00 A8
<< 50 00 00 03 53 – confirmation reply

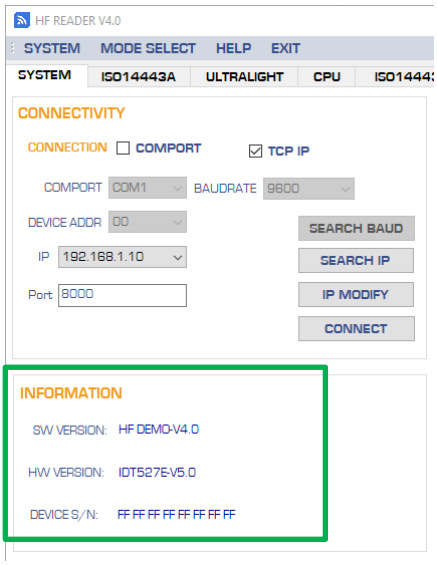
2 Network Setup

Factory default IP address is:	**DHCP**
Factory default Port is:	**8000**

Important Note

Do not connect any device to your network before it has been configured. Before connecting it your network, check that the desired IP address has been set. A device may have any factory-set IP address. A device with the wrong settings may impede the functioning of your network.

2.1 Connecting with The Device



Checkmark TCP IP first.

In case you don't know the IP address of the device, use the [search] function. This will take some time, so please be patient. This will only work in the same subnet, so set your service PC according in the suitable network address range.

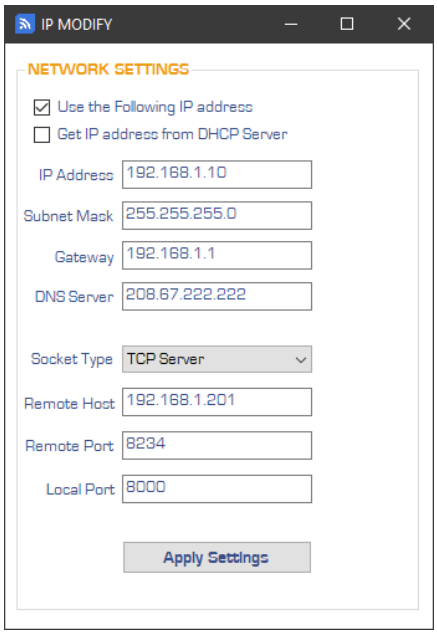
If the IP address is known, simply type it in.

Tipp: Use copy & paste to reuse IP addresses from a text file.

When the IP address is shown press [connect]. Now the software should connect to the device and show a brief version information gathered from the device:

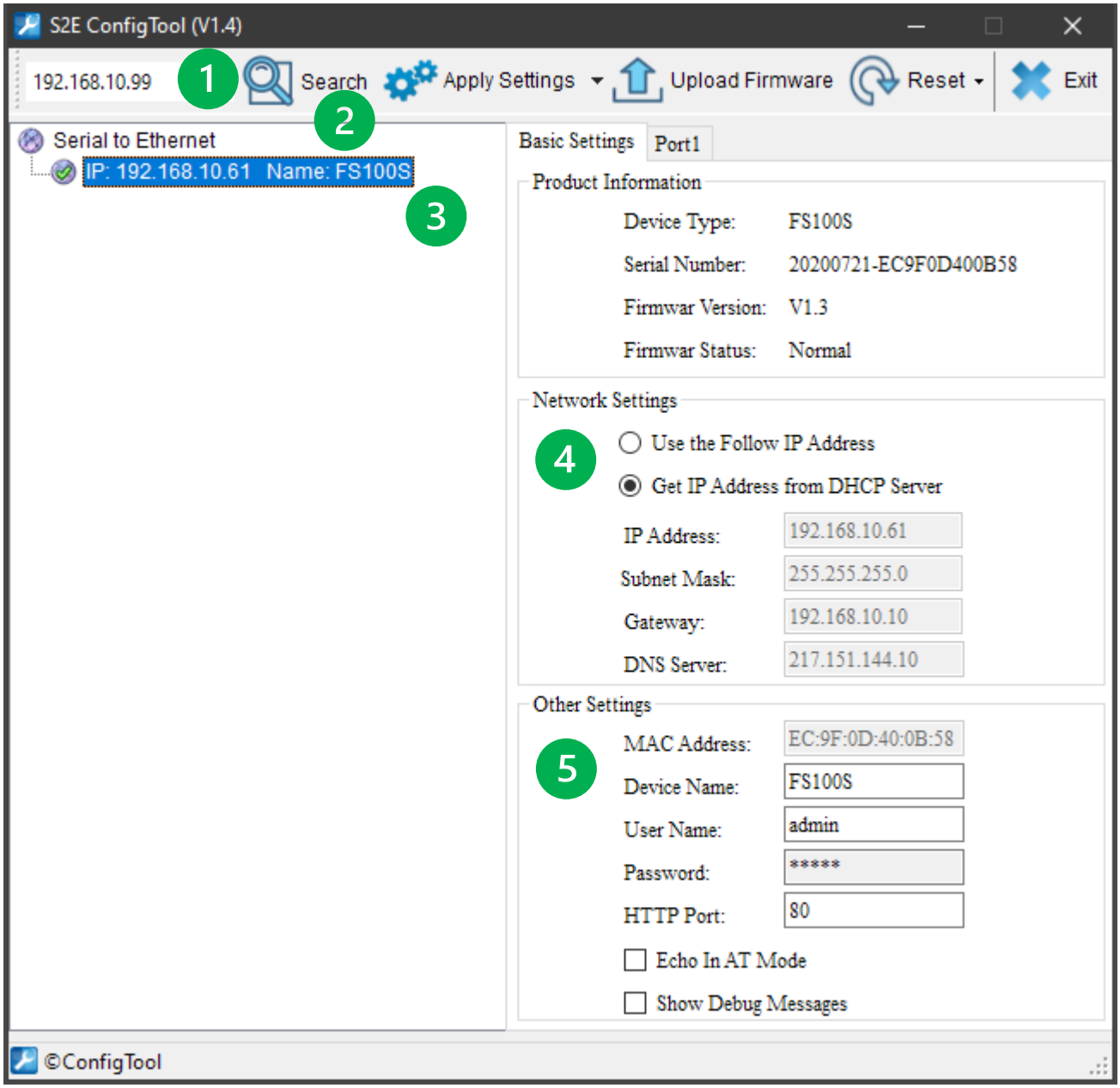
2.2 Network Settings

Use [IP Modify] to open this dialog. Change the values as desired for your application.



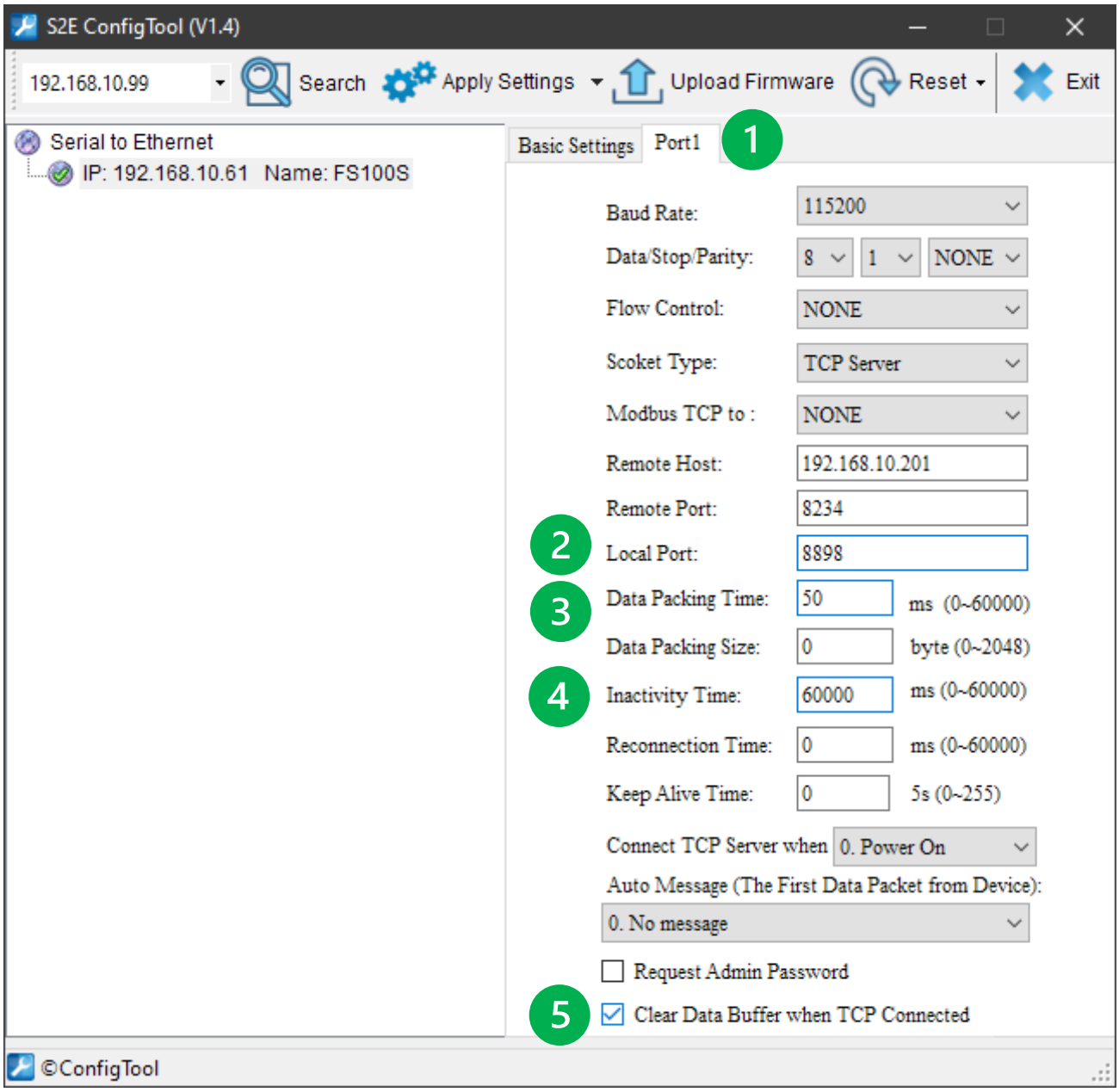
2.3 Using “S2E ConfigTool_V1.4”

Tab “Basic Settings”



1: Select the desired network interface of your PC from the drop-down menu.
2: Click on [Search], now the device you want to set should be listed.
3: Select the desired device to set.
4: Leave the device set to DHCP or set the desired Ethernet parameters of the device.
5: Device Name: Here you can give the device a name that is helpful to you.
User Name/Password: this is the user name and password for access via the web interface. You can use this to block access. In addition, you can disguise access to the web interface with an HTTP port that differs from the standard.
6: Please do not forget to save changed settings with [Apply Settings].

Tab “Port 1”



The screenshot shows factory settings. Normally you should not need to change anything here.

In case you need to change settings, please do not forget to save changed settings with [Apply Settings].

Important Note!

Please do not change the values “Baud Rate”, “Data/Stop/Parity”, “Flow Control”, “Socket Type”, “Modbus TCP to”.

2.4 Using the Web Interface

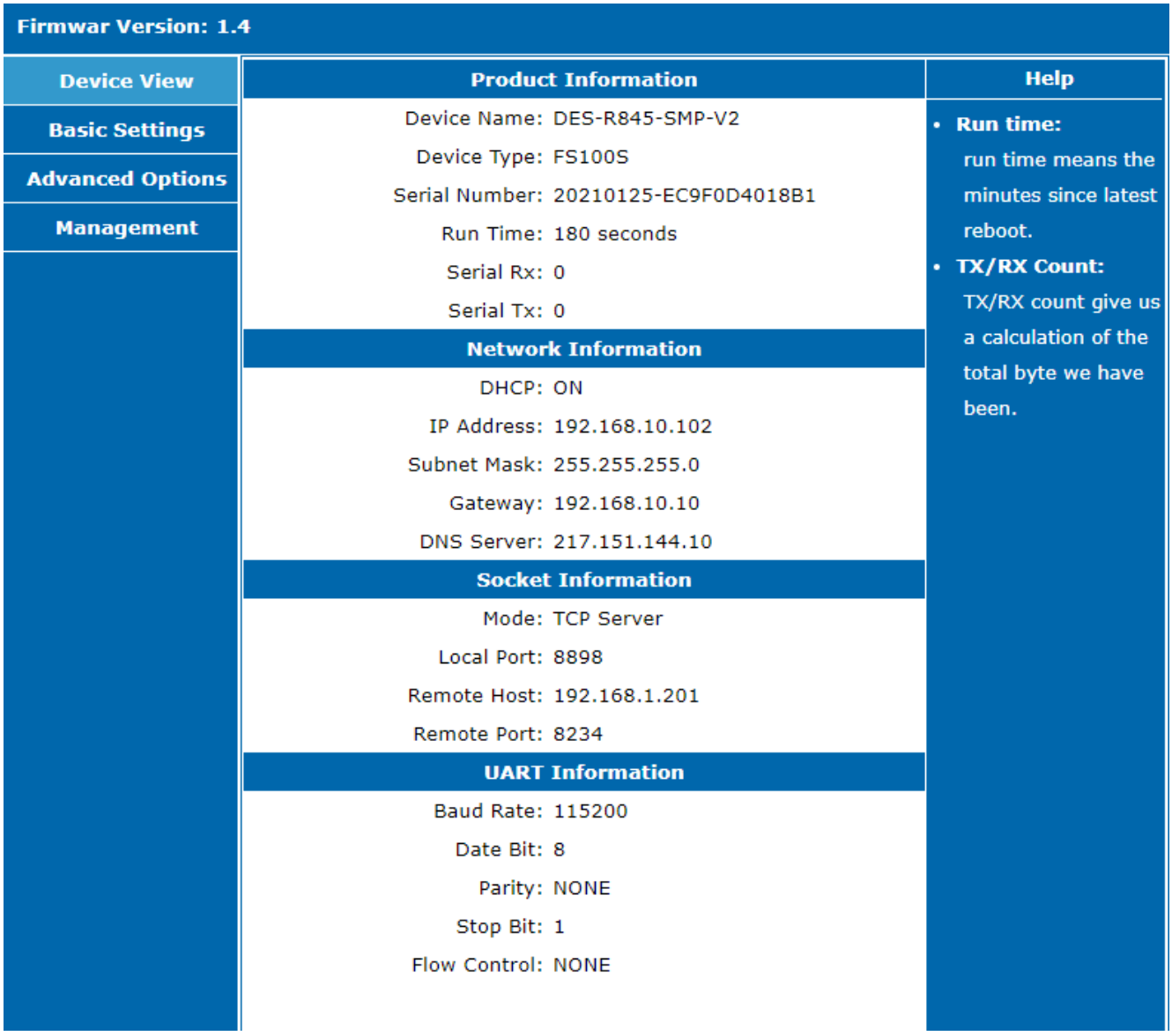
Die Weboberfläche ist unter der gleichen IP-Adresse erreichbar, wie sie im „S2E ConfigTool_V1.4“ sichtbar ist.

2.4.1 LogIn Information

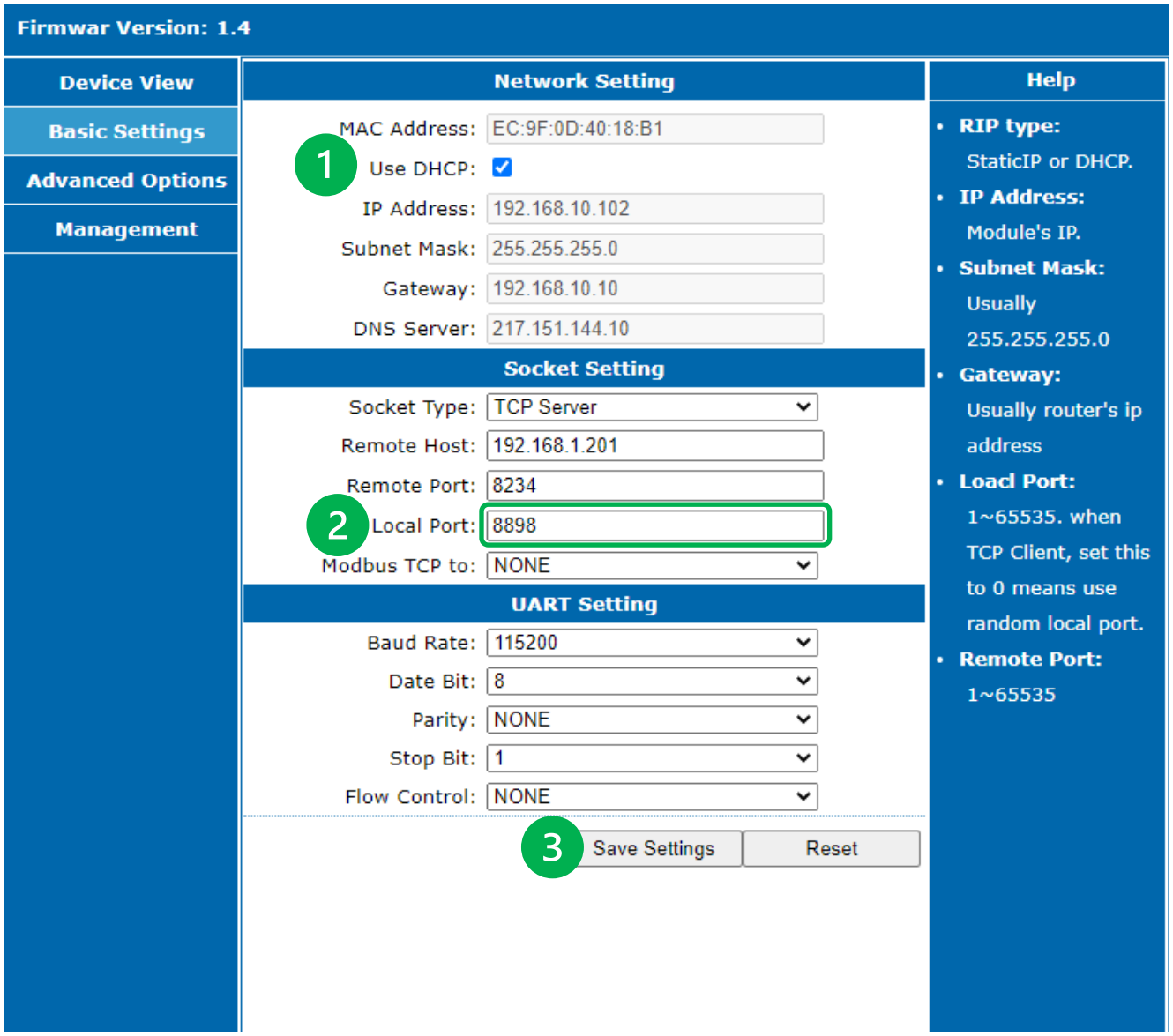
By factory default user and password is: admin

2.4.2 Menu “Device View”

This gives an overview of the current settings. The settings cannot be changed here.



2.4.3 Menu “Basic Settings”



Note

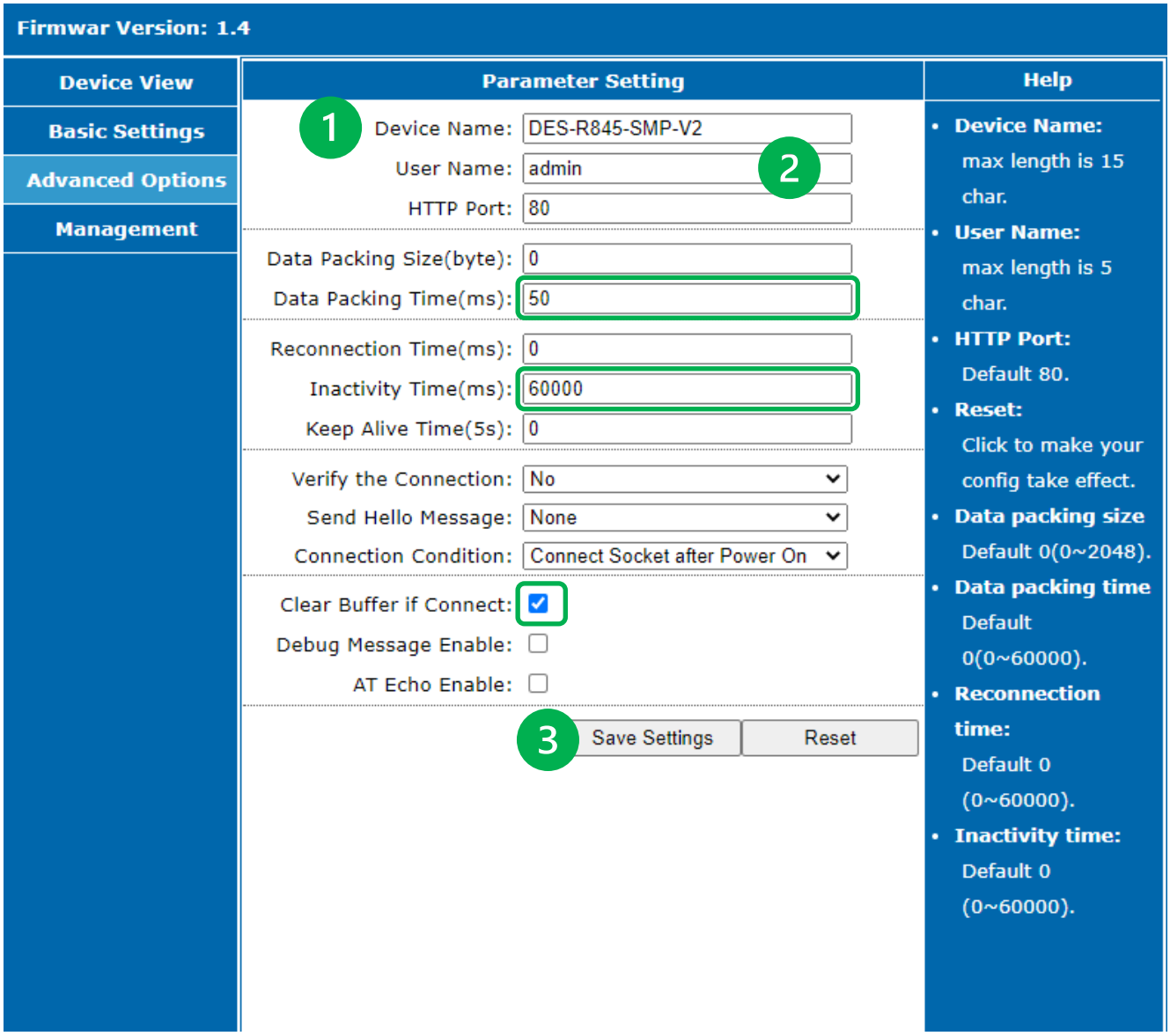
The factory settings are framed in green. Normally you should not need to change anything here.

1: Keep DHCP or set the desired IP address for the device.
2: Set „Local Port“ to the desired listening port number.
3: Make sure to press [Save Settings] to save the settings permanently.

Important hint!

Do not change the settings „Socket Type“, „Modbus TCP to“ in section „Socket Setting“.
Do not change the settings in section „UART Setting“.

2.4.4 Menu “Advanced Options”



Note

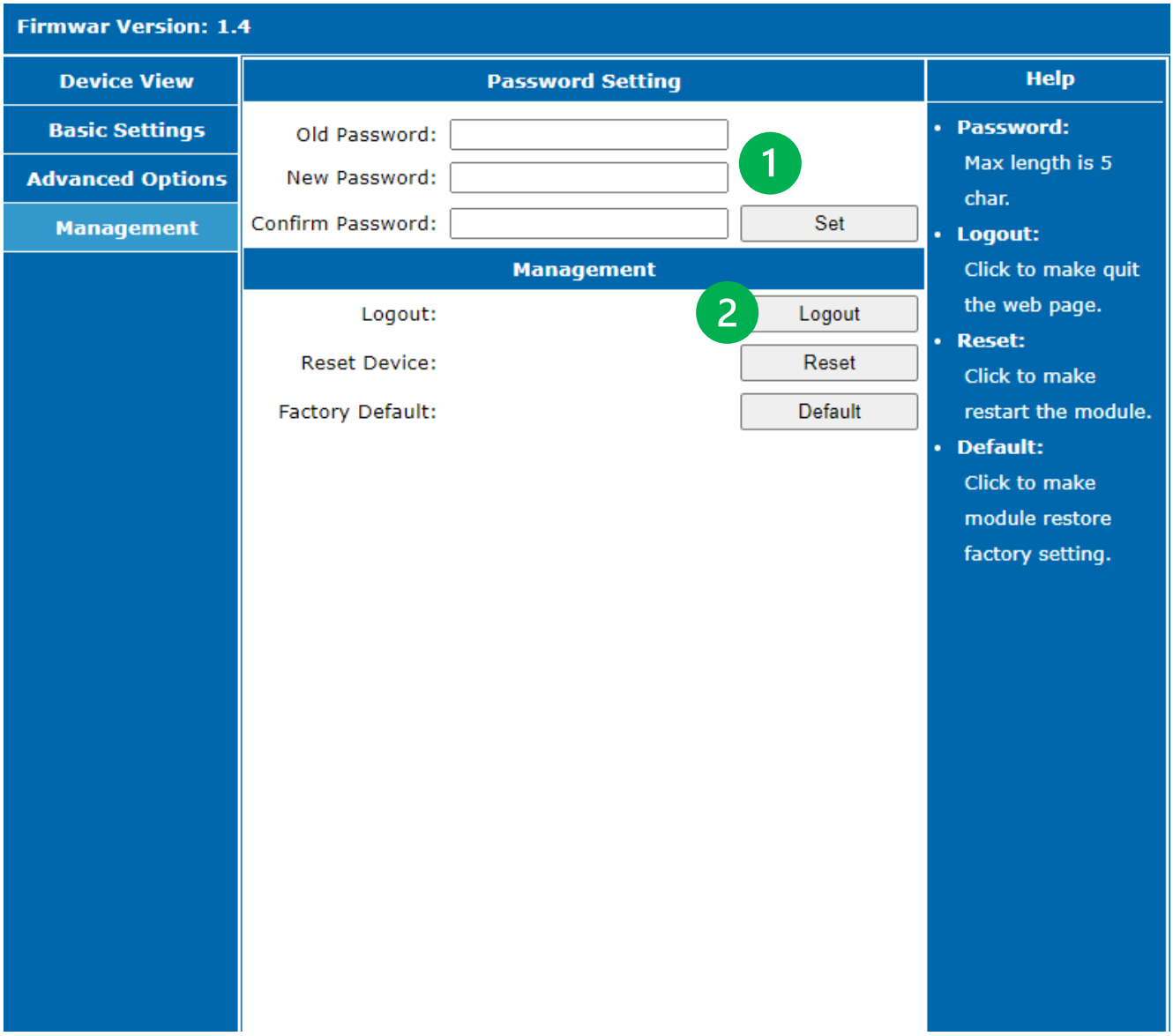
The factory settings are framed in green. Normally you should not need to change anything here.

1: When useful put a „Device Name“ for your own interest.
2: „User Name“ is the user name for the web interface.
The password settings are done in the site „Management“.
You can change the web server port to any other port.
3: Make sure to press [Save Settings] to save the settings permanently.

Important hint!

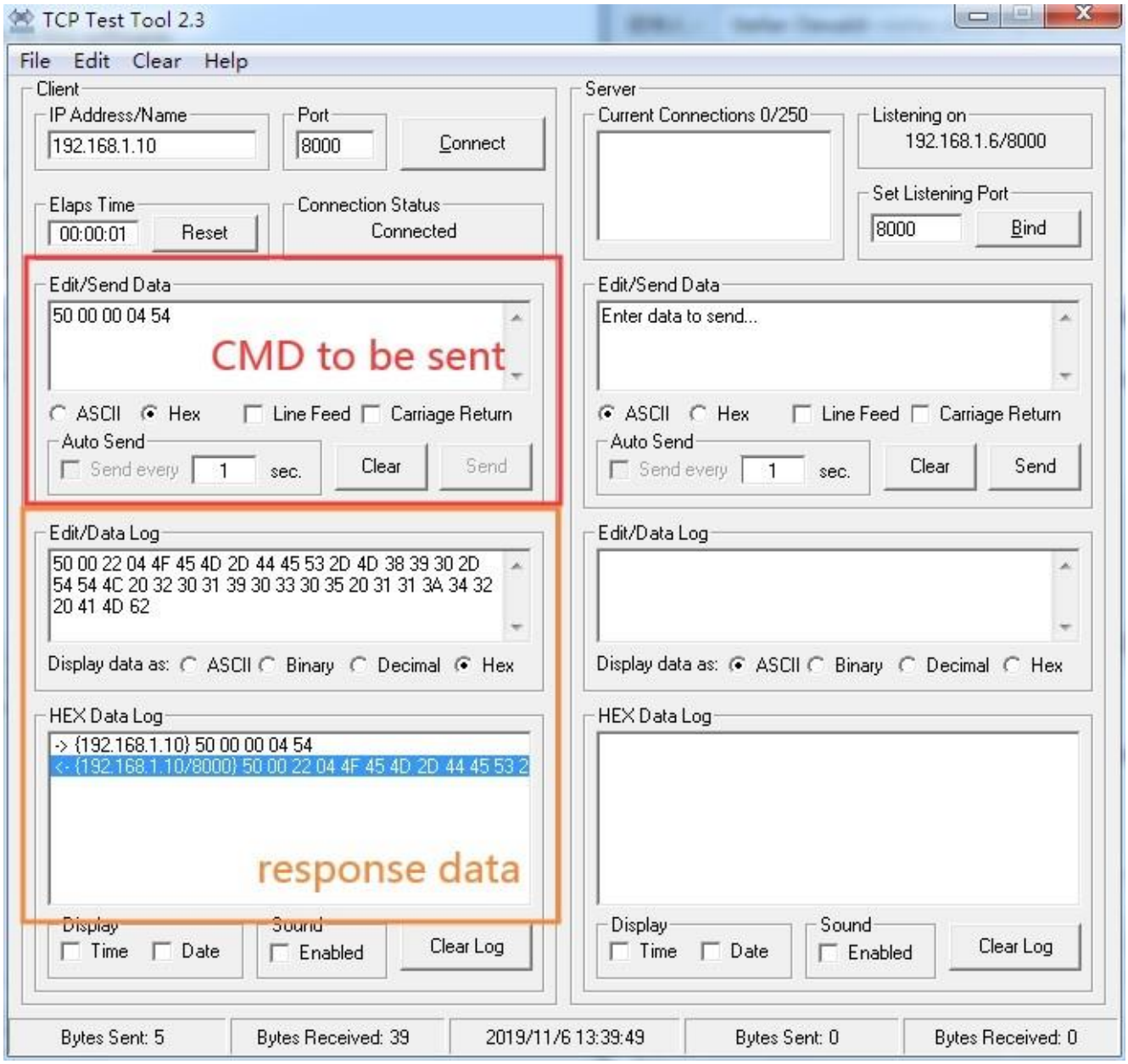
Do not change any other settings here.

2.4.5 Menu “Management”



1: You can change the current password to a new password. The factory default password is „admin“. To change the password type in your current password in „Old Password“ and type in the new password in „New Password“. Confirm the new password in the field „Confirm Password“.
Make sure to press [Save Settings] to save the new password permanently.

2: For security reasons you should logout after changing the password by pressing [Logout].

3 Communication Test

In this simple communication test the command code 04 is used to request the firmware information string.
The device uses a binary communication protocol, so all interpretations are as hexadecimal numbers.