

Firmware Update Weather Sensor Basic Instruction

BUILDING AND HOME AUTOMATION SOLUTIONS

Doc.-Type: Step-by-Step Guide

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System: i-bus® KNX

Product: WES/A4.1.1

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Despite checking that the contents of this document are consistent with the current versions of the related hard and software of the products mentioned within, deviations cannot be completely excluded. We therefore assume no liability for correctness. Necessary corrections will be introduced as and when new versions of the document are generated.

Introduction

This document describes the procedure for updating the Weather Sensor Basic WES/A4.1.1. All necessary devices, files and software programs are mentioned, and the update process is described step-by-step.

Information on the changes to the firmware versions can be found in the corresponding [release note](#).

Objectives of the document

The document helps installers and system integrators to successfully update the Weather Sensor Basic WES/A4.1.1.

Content

1. The following requirements exist for the update of the Weather Sensor Basic WES/A4.1.1:

- a. A laptop with Windows XP/Vista/7/8/10/11 is required.
- b. The firmware file (ABB_WESA_411_V2.00.hex) and the macro file (!_UPDATE_ABB_WESA_411_V2.TTL) must be saved **locally** on the laptop. The files can be downloaded at the following link: [Link](#)
- c. To use it, the freeware TeraTerm must be downloaded from the following web page, installed, and run.

Link: [Download TeraTerm](#)

→ to find under Assets → teraterm-5-2.exe

- d. An interface converter that supports the Modbus RS485 (half duplex) transmission path is required.

We recommend the „Waveshare Industrial USB to RS485 Converter“ ([Link](#)) as an interface converter, see illustration.



Figure 1 Waveshare Industrial USB to RS485 Converter

Alternatively, the interface converter from Digitus, DA-70157 ([Link](#)), can be used.

2. Description of the software update

- a. To use it, the freely usable program TeraTerm must be installed and run. (see 1.c)
- b. The Weather Sensor Basic WES/A4.1.1 must be connected to the interface converter.

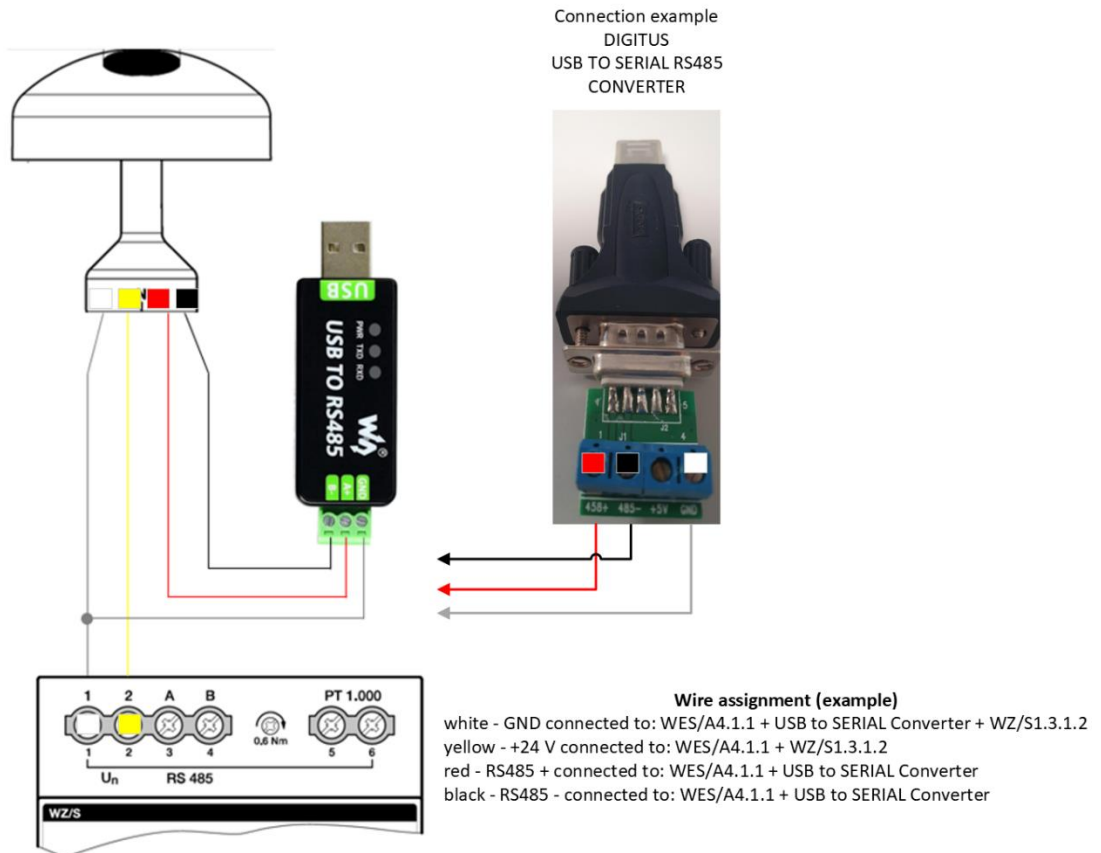


Figure 2 Wiring Weather Sensor with interface converter

- c. Connect the interface converter to the laptop and wait until the appropriate drivers are installed. Once the drivers are installed, you should check whether the interface converter is listed in the Windows Device Manager.

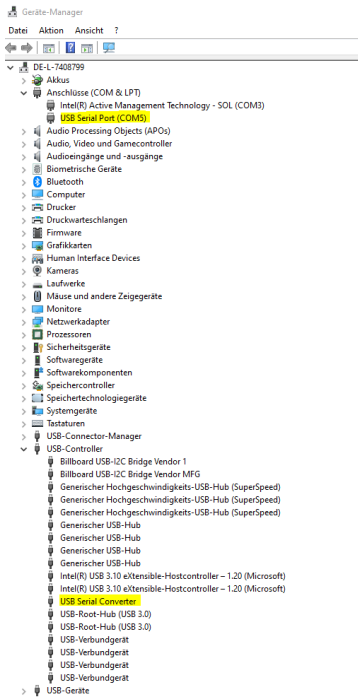


Figure 3 View Device Manager

- d. Set communication parameters in TeraTerm: Select interface to the Weather Sensor. The COM designation may differ.

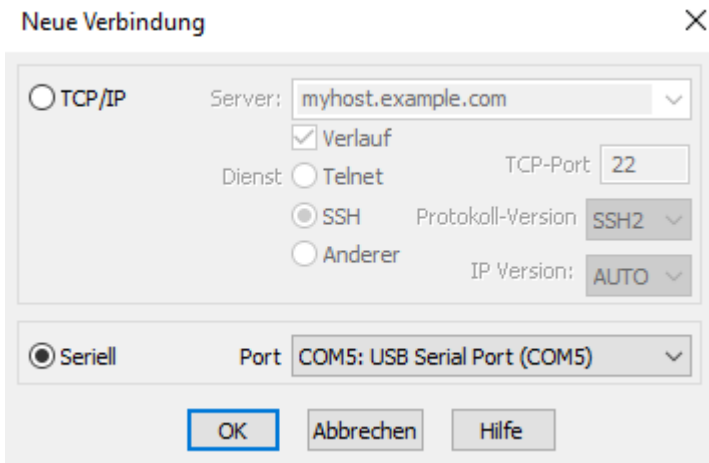


Figure 4 TeraTerm Selection interface

- e. The communication speed must be adjusted. This can be set in TeraTerm under Settings → Serial Port → Speed. “19200” must be set. Then confirm the windows with „new open“ or

„new setting“.

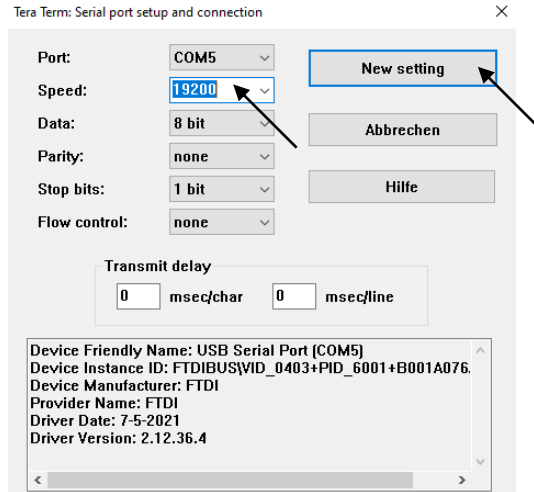


Figure 5 Setting speed

- f. When the device is in operation, the binary telegram is already visible in TeraTerm and looks as follows or comparable.

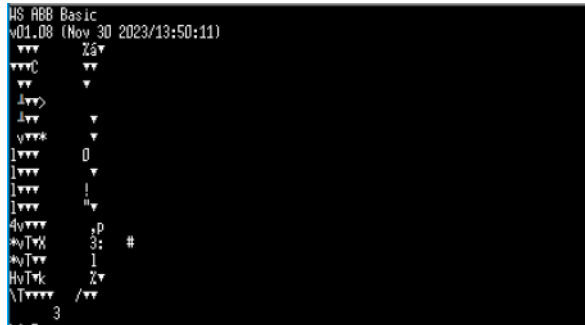


Figure 6 Binary telegram in TeraTerm

- g. Now the macro for the software update must be selected in TeraTerm. This is set in TeraTerm under Control → Macro. Now select the locally saved macro file (!_UPDATE_ABB_WESA_411_V2.TTL) and open it.

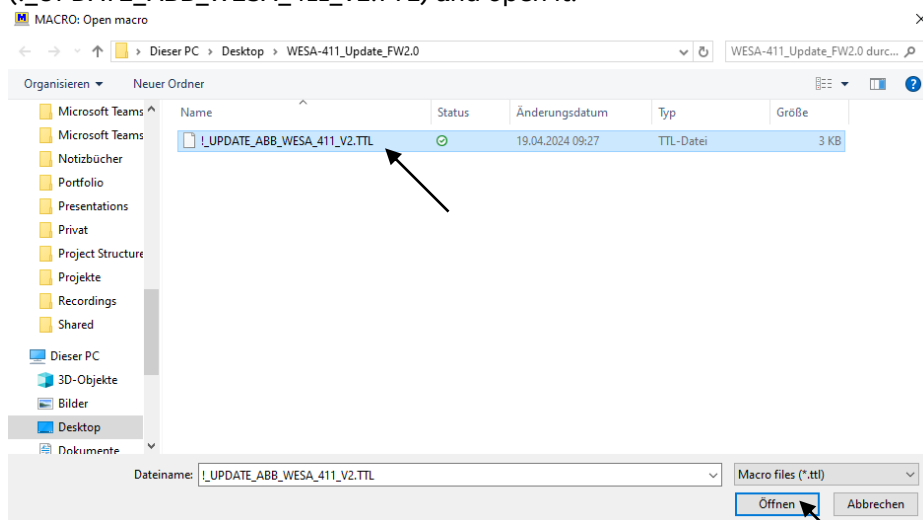


Figure 7 Selection macro

- h. Another window will now automatically open by selecting the firmware (WSC_ABBBASIC_V2.00.hex) for updating.

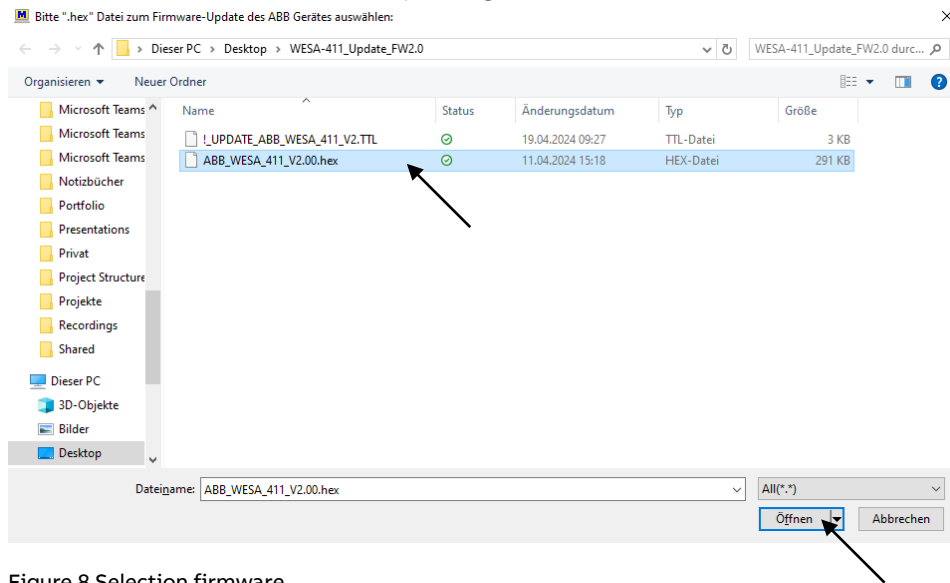


Figure 8 Selection firmware

- i. The selected file is then confirmed, and the firmware upload begins.

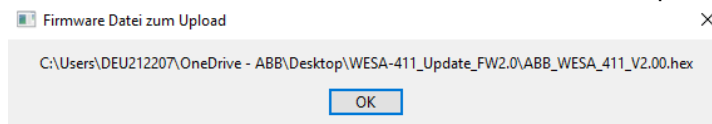


Figure 9 Confirmation firmware file

- j. The update is then carried out.

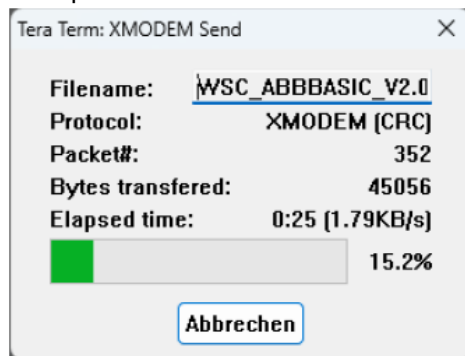


Figure 10 Display status update

- i. If a message appears stating that the update failed, repeat steps e. to i.

- ii. If the problem persists, close TeraTerm and remove the interface converter from the USB port. Now connect the interface converter to the USB port again and start the TeraTerm program as administrator. Start with steps e. to i. anew.
- k. At the end of the firmware update, the message must be confirmed with “OK”.

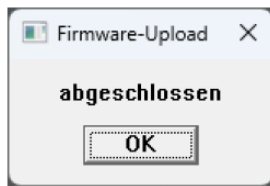


Figure 11 Firmware update completed

- i. After approx. 20 seconds, the binary telegram is automatically started again, and output as shown in Figure 6 or comparable. The weather sensor has now been successfully updated. The weather sensor Basic must now be correctly connected to the weather center again.