



# **USB – RS485 Modbus Converter**

**P/N 242411/02**

## **Installation Manual**

### **Important Notice**

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Rev.	Revision Date	Change Description
00	May 2010	Initial version
01	July 2010	New converter-type

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# 1 Overview

## 1.1 Introduction

The ARC Sensor Configurator is a PC application for calibration and configuration of ARC Sensors and VISIFERM DO Sensors.

For PC-to-sensor communication, an RS485 interface for Modbus is needed. HAMILTON recommends to use the USB-RS485 Modbus converter (P/N: 242411).

This document guides you through the installation of the USB-RS485 Modbus converter recommended by HAMILTON.

## 1.2 Operating System Requirements

The USB-RS485 Modbus converter driver is tested with Windows XP, Windows Vista and Windows 7.

# 2 Installation of the USB-RS485 Modbus Converter



### Attention:

**Do not plug the converter into the computer's USB port until the tasks described in chapter 2.1 are completed.**

## 2.1 Download the USB-RS485 Modbus Converter Driver

1. Go to URL <http://www.hamiltoncompany.com> and select "Lab & Process Sensors" – "Downloads".
2. Download "PN242411-02\_USB-RS485-Converter-Driver.zip".
3. In the window "File Download" click "Save" and select a directory on your computer where you want to download and save the file. After the download is completed, click "Close".
4. Unpack the downloaded ZIP-file into an empty directory. If you are using Windows Explorer, double-click on the ZIP-file, select "File" – "Extract All..." and follow the "Extraction Wizard" to extract and save all included files into the desired directory.

## 2.2 Windows XP



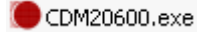
### **Attention:**

Do not plug the converter into the computer's USB port until the tasks described in chapter 2.2.1 are completed.

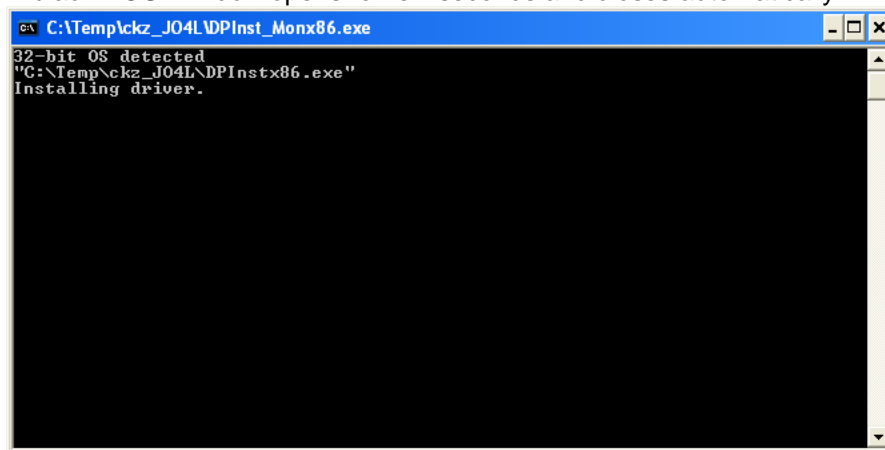
For the installation, administrator rights are needed on your computer.

### 2.2.1 Pre-Installation of the USB-RS485 Converter Driver

1. Double click on „CDM20600.exe“, witch you will find in the unzipped directory.



2. A black DOS-Window opens for few seconds and closes automatically.



3. Finish, no further message.

### 2.2.2 Installation of the USB-RS485 Converter



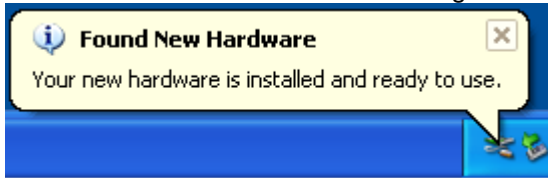
### **Attention:**

Make sure the tasks described in chapter 2.2.1 are completed.

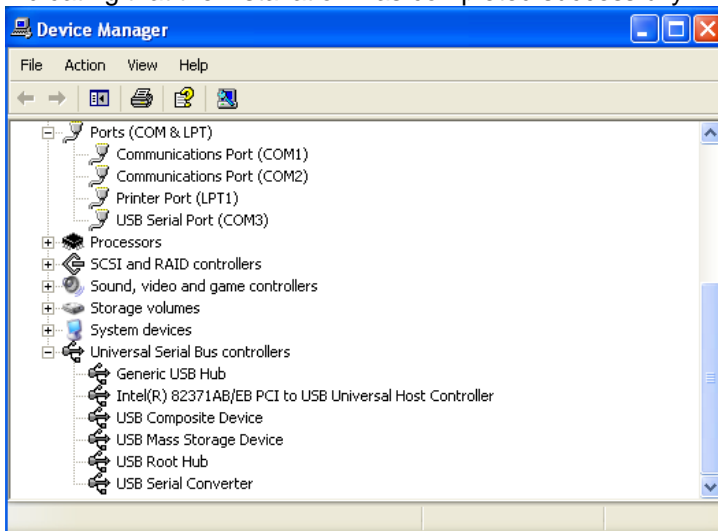
1. Plug the converter into the computer's USB port.
2. On the right bottom area of the screen a message pops up to show the automatic recognition and installation of the converter.



3. After a view seconds the finish message is shown.



4. Now check the COM-port that has been assigned to the converter.  
Right click **"My Computer"**. In the context menu displayed, select **"Properties"**. In the window **"System Properties"**, on the tab **"Hardware"**, click **"Device Manager"**.
5. The entry **"Ports"** shows the new item **"USB Serial Port (COMx)"**. x indicates the COM-port assigned, in this case COM3.  
The entry **"Universal Serial Bus controllers"** shows the new item **"USB Serial Converter"**, indicating that the installation was completed successfully.



6. The USB-RS485 Modbus converter will now operate on COM3 (in this example).
7. If you plug the converter into another USB port on the same computer the assigned COM-port will be kept for that device.
8. If you plug in another converter, the automatic recognition starts again.

### 2.2.3 Uninstall USB-RS485 Modbus Converter and unblock COM-Port

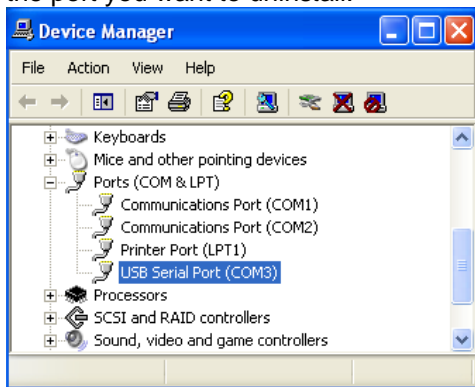


#### **Attention:**

**To uninstall, administrator rights are needed on your computer.**

1. The USB-RS485 Modbus converter is plugged into the computer's USB port.
2. Right click **"My Computer"**. In the context menu displayed, select **"Properties"**. In the window **"System Properties"**, on the tab **"Hardware"**, click **"Device Manager"**.

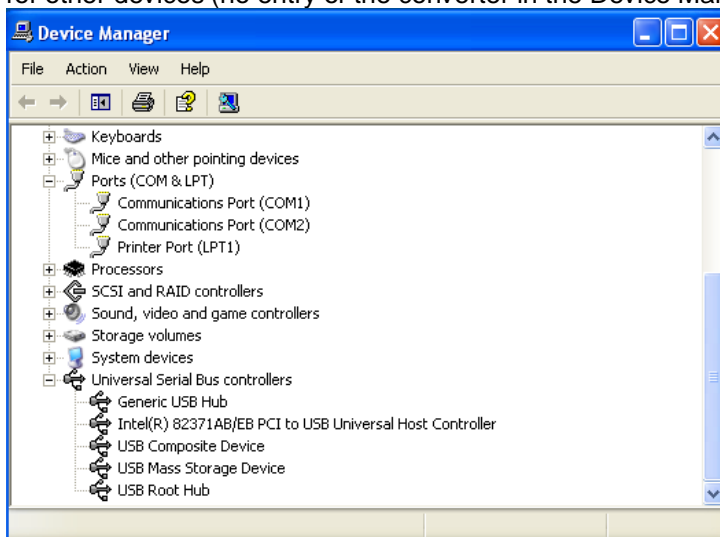
- Open the tree **"Ports (COM & LPT)"** and right click **"USB Serial Port (COMx)"**. x = Number of the port you want to uninstall.



- In the context menu displayed, select **"Uninstall"**.
- Confirm with **"OK"**.



- The USB-RS485 Modbus converter is removed and the corresponding COM-port is now free for other devices (no entry of the converter in the Device Manager).



- Plug off the USB-RS485 Modbus converter.

## 2.3 Windows Vista




### **Attention:**

Do not plug the converter into the computer's USB port until the tasks described in chapter 2.3.1 are completed.

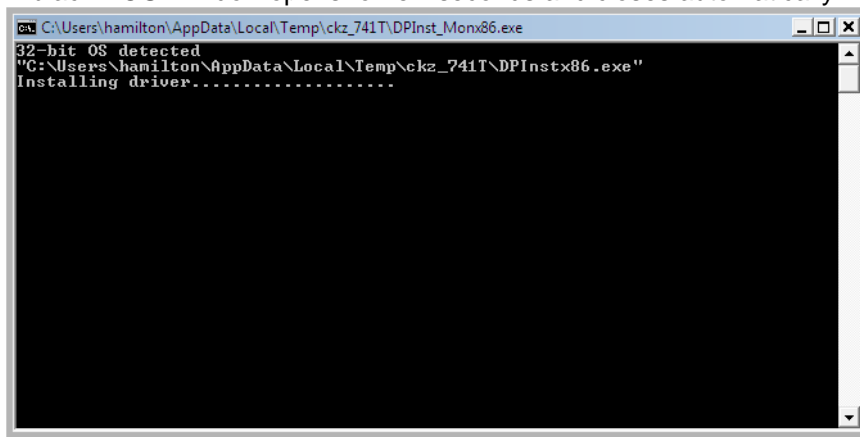
For the installation, administrator rights are needed on your computer.

### 2.3.1 Pre-Installation of the USB-RS485 Converter Driver

1. Double click on „CDM20600.exe“, which you will find in the unzipped directory.

 CDM20600.exe

2. A black DOS-Window opens for few seconds and closes automatically.



3. Finish, no further message.

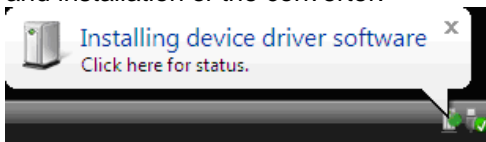
### 2.3.2 Installation of the USB-RS485 Converter



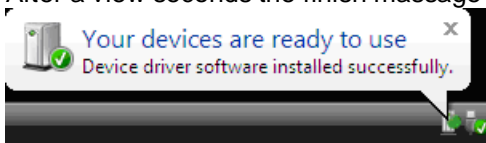
### **Attention:**

Make sure the tasks described in chapter 2.3.1 are completed.

1. Plug the converter into the computer's USB port.
2. On the right bottom area of the screen a message pops up to show the automatic recognition and installation of the converter.

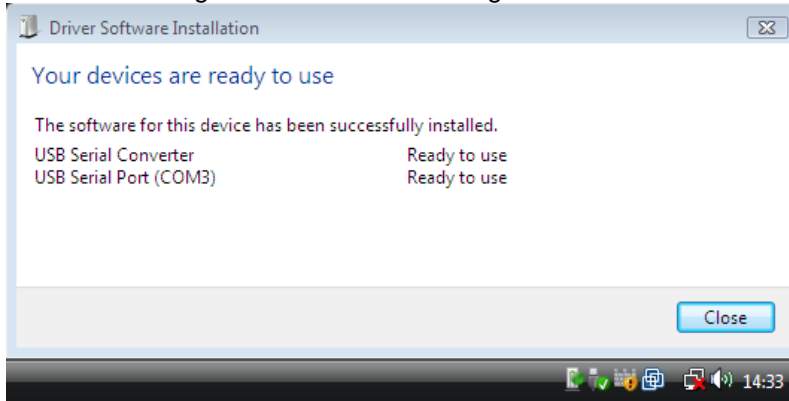


3. After a view seconds the finish message is shown.

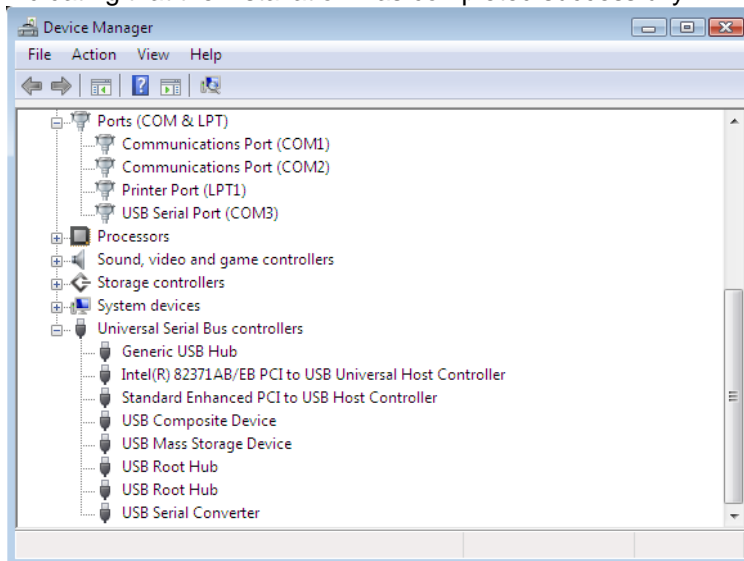




4. Click the message. COM3 has been assigned to the converter in this example.



5. If you have missed the message by point 3, check the COM-port that has been assigned to the converter by clicking **"Start" – "Control Panel" – "Device Manager"**.
6. The entry **"Ports"** shows the new item **"USB Serial Port (COMx)"**. x indicates the COM-port assigned, in this case COM3.  
The entry **"Universal Serial Bus controllers"** shows the new item **"USB Serial Converter"**, indicating that the installation was completed successfully.



7. The USB-RS485 Modbus converter will now operate on COM3 (in this example).
8. If you plug the converter into another USB port on the same computer the assigned COM-port will be kept for that device.
9. If you plug in another converter, the automatic recognition starts again.

### 2.3.3 Uninstall USB-RS485 Modbus Converter and unblock COM-Port

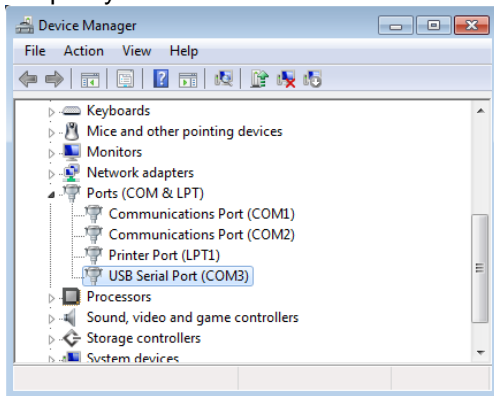


#### **Attention:**

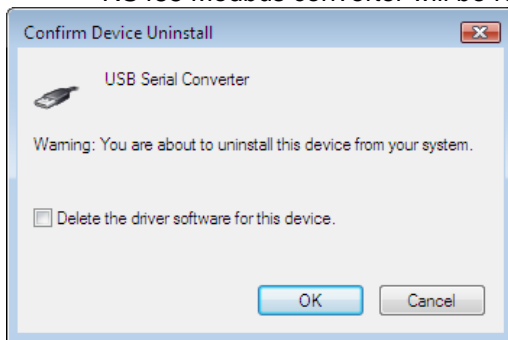
**To uninstall, administrator rights are needed on your computer.**

1. The USB-RS485 Modbus converter is plugged into the computer's USB port.
2. Click **"Start" – "Control Panel" – "Device Manager"**.

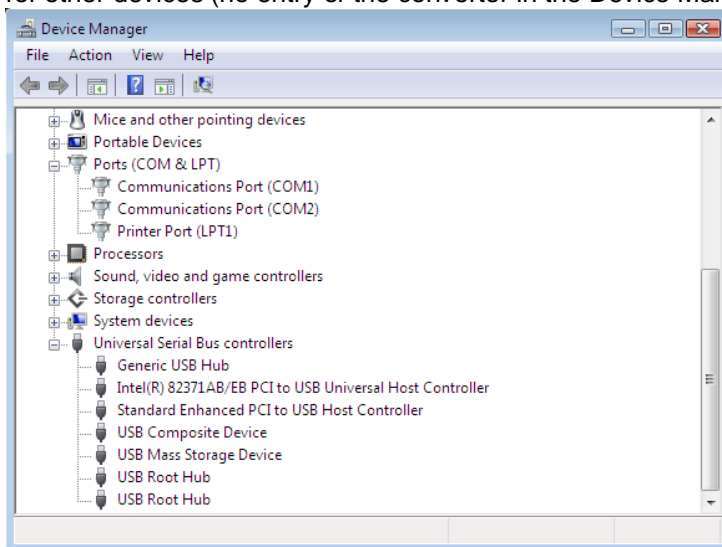
3. Open the tree **"Ports (COM & LPT)"** and right click **"USB Serial Port (COMx)"**. x = Number of the port you want to uninstall.



4. In the context menu displayed, select **"Uninstall"**.
5. Confirm with **"OK"**.
  - a. If you want to remove the driver completely as well, select the field **"Delete the driver software for this device"**.
  - b. If you want to keep the driver installed and unblock the COM-port do not select the field **"Delete the driver software for this device"**. The advantage here is that a new USB-RS485 Modbus converter will be recognised automatically if plugged in.



6. The USB-RS485 Modbus converter is removed and the corresponding COM-port is now free for other devices (no entry of the converter in the Device Manager).



7. Plug off the USB-RS485 Modbus converter.

## 2.4 Windows 7




### **Attention:**

Do not plug the converter into the computer's USB port until the tasks described in chapter 2.4.1 are completed.

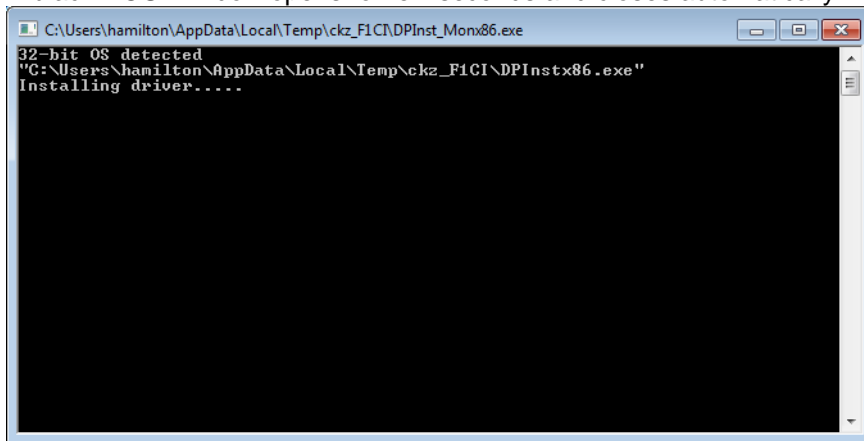
For the installation, administrator rights are needed on your computer.

### 2.4.1 Pre-Installation of the USB-RS485 Converter Driver

1. Double click on „CDM20600.exe“, which you will find in the unzipped directory.

 CDM20600.exe

2. A black DOS-Window opens for few seconds and closes automatically.



3. Finish, no further message.

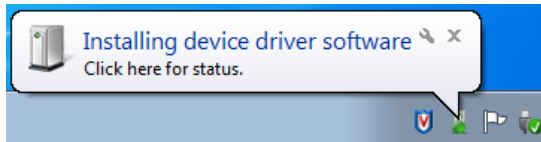
### 2.4.2 Installation of the USB-RS485 Converter



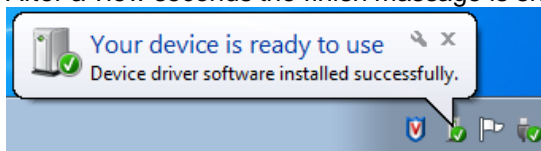
### **Attention:**

Make sure the tasks described in chapter 2.4.1 are completed.

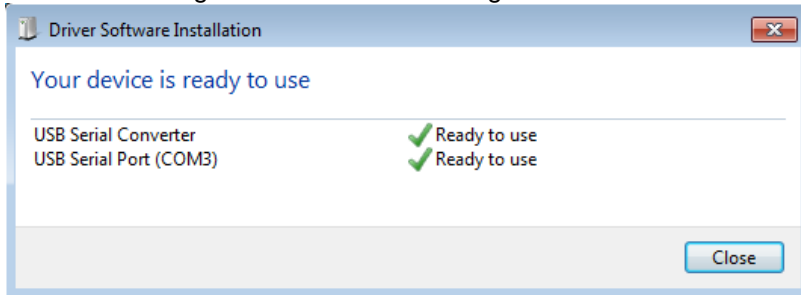
1. Plug the converter into the computer's USB port.
2. On the right bottom area of the screen a message pops up to show the automatic recognition and installation of the converter.



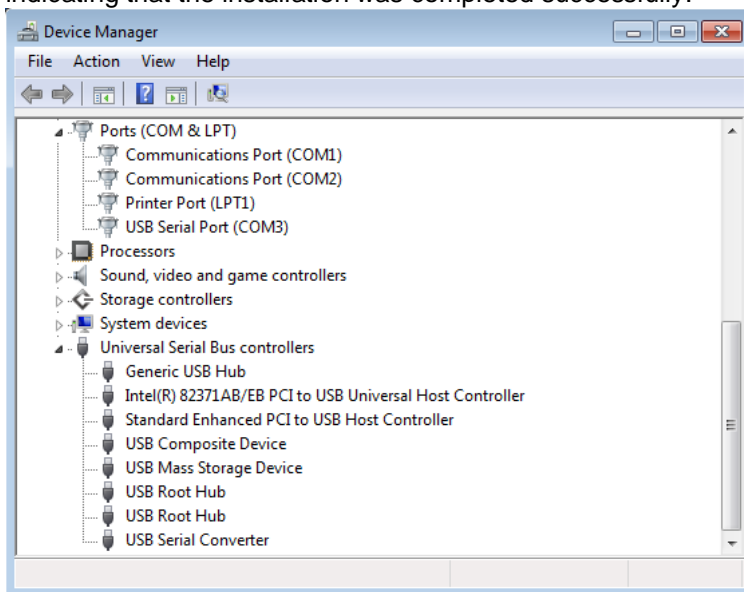
3. After a view seconds the finish message is shown.



4. Click the message. COM3 has been assigned to the converter in this example.



5. If you have missed the message by point 3, check the COM-port that has been assigned to the converter by clicking "**Start**" – "**Control Panel**" – "**Device Manager**".
6. The entry "**Ports**" shows the new item "**USB Serial Port (COMx)**". x indicates the COM-port assigned, in this case COM3.  
The entry "**Universal Serial Bus controllers**" shows the new item "**USB Serial Converter**", indicating that the installation was completed successfully.



7. The USB-RS485 Modbus converter will now operate on COM3 (in this example).
8. If you plug the converter into another USB port on the same computer the assigned COM-port will be kept for that device.
9. If you plug in another converter, the automatic recognition starts again.

### 2.4.3 Uninstall USB-RS485 Modbus Converter and unblock COM-Port

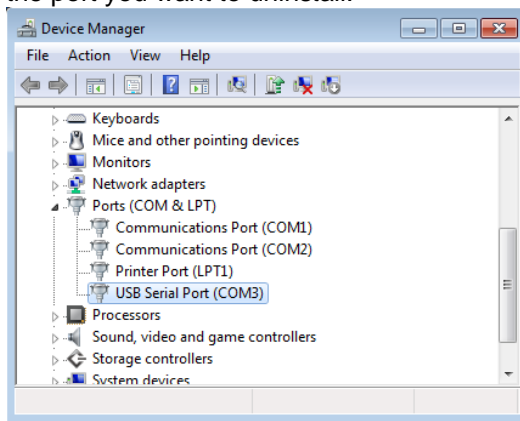


#### **Attention:**

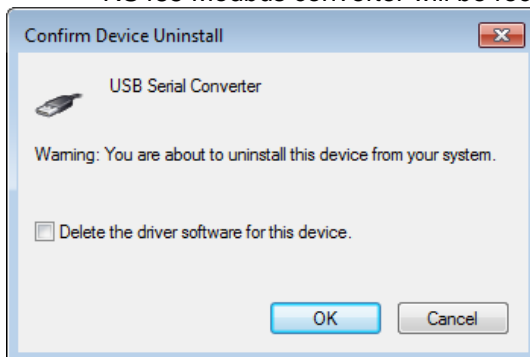
**To uninstall, administrator rights are needed on your computer.**

1. The USB-RS485 Modbus converter is plugged into the computer's USB port.
2. Click "**Start**" – "**Control Panel**" – "**Device Manager**".

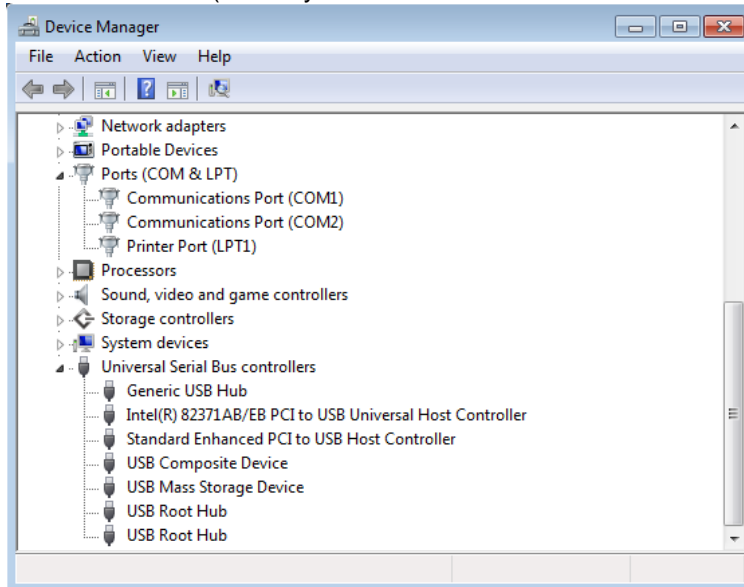
3. Open the tree “**Ports (COM & LPT)**” and right click “**USB Serial Port (COMx)**”. x = Number of the port you want to uninstall.



4. In the context menu displayed, select “**Uninstall**”.
5. Confirm with “**OK**”.
  - a. If you want to remove the driver completely as well, select the field “**Delete the driver software for this device**”.
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6. The USB-RS485 Modbus converter is removed and the corresponding COM-port is now free for other devices (no entry of the converter in the Device Manager).



7. Plug off the USB-RS485 Modbus converter.

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