

# Programming Cables TK503/TK504

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# Introduction and Basics

## Intended Use

The TK503/TK504 Programming Cable is used to transfer data between the PLC and a PC or laptop. It is used for programming purpose.

## Description

The TK503/TK504 Programming Cable can be used to operate and configure the PLC via a PC or laptop.

In order to do this, the CoDeSys software, driver and utility programs must be installed and a TK503/TK504 Programming Cable must be connected.

## PC System Requirements

- Platform: Microsoft XP
- CD-ROM drive
- USB port available for connecting the TK503/TK504 Programming Cable



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## Content of the Installation Package

| Name                                | Type                   |
|-------------------------------------|------------------------|
| x64                                 | File Folder            |
| x86                                 | File Folder            |
| setup.ini                           | Configuration Settings |
| slabvcp.inf                         | Setup Information      |
| TK503_TK504_Driver_Installation.pdf | Adobe Acrobat Doc...   |
| TK503_TK504_Installer.exe           | Application            |

# Installation

## Installation Steps

Before you can use the TK503/TK504 Programming Cable, the appropriate USB driver must be installed on your PC or laptop.

The driver for the TK503/TK504 Programming Cable is installed in two steps:

- Pre-installation of the drivers on your PC using the program *TK503\_TK504\_Installer.exe*.
- Installation of the new hardware in Windows after the TK503/TK504 Programming Cable is plugged in for the first time.



### NOTICE

Before you connect the TK503/TK504 Programming Cable with the PC, install the USB drivers first.

## Pre-Installation Routine

1. Start the pre-installation of the driver by calling *TK503\_TK504\_Installer.exe*.

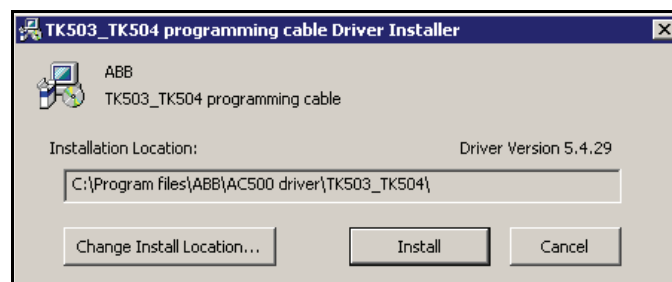
| Name                                | Type                   |
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| slabvcp.inf                         | Setup Information      |
| TK503_TK504_Driver_Installation.pdf | Adobe Acrobat Doc...   |
| TK503_TK504_Installer.exe           | Application            |



### NOTICE

You must have administrator rights to run the installation for the USB drivers.

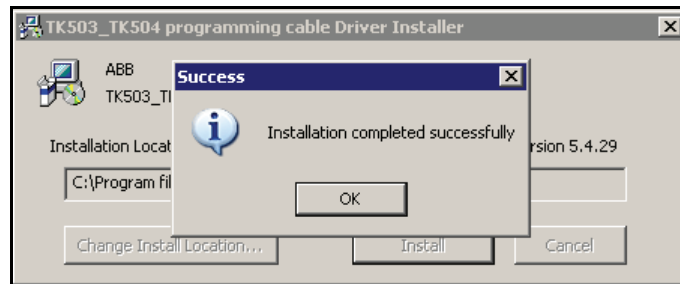
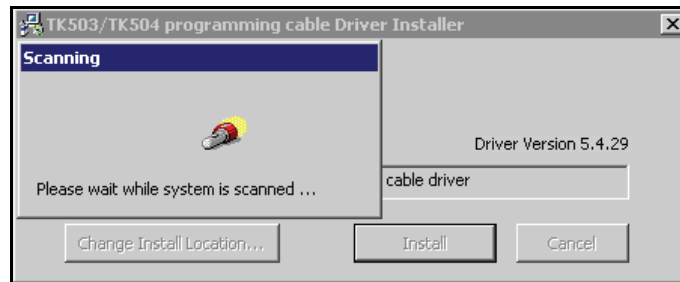
2. Define the installation directory



This directory can be changed by clicking the **Change Install Location...** button. The installation directory is where the driver package is copied and from where you can start the installation.

## Pre-installation check

- The installation tool automatically verifies if a current or a newer driver version has been installed before. In such a case, an error is reported and the installation routine is aborted. Start the pre-installation via the **Install** button

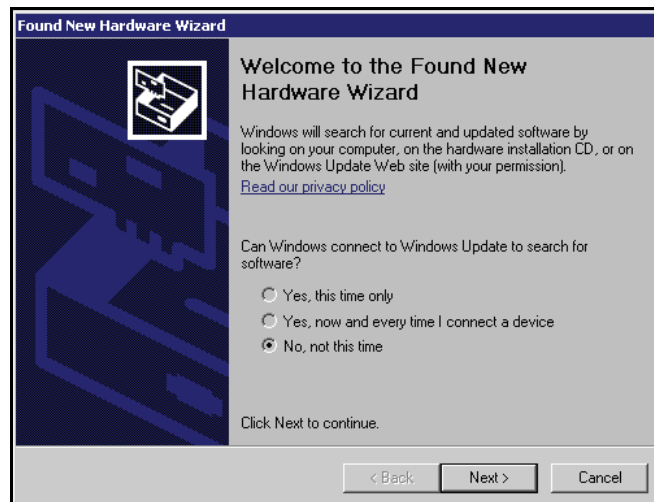


- After the files are copied, a message window appears. Click **OK** button.
- If a message box appears, reboot your PC or laptop. Otherwise, continue with step *Driver Installation Routine*.

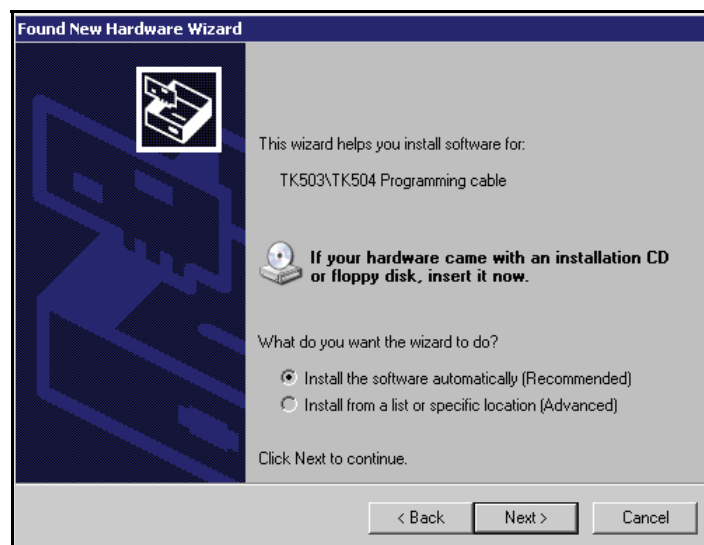


# Driver Installation Routine

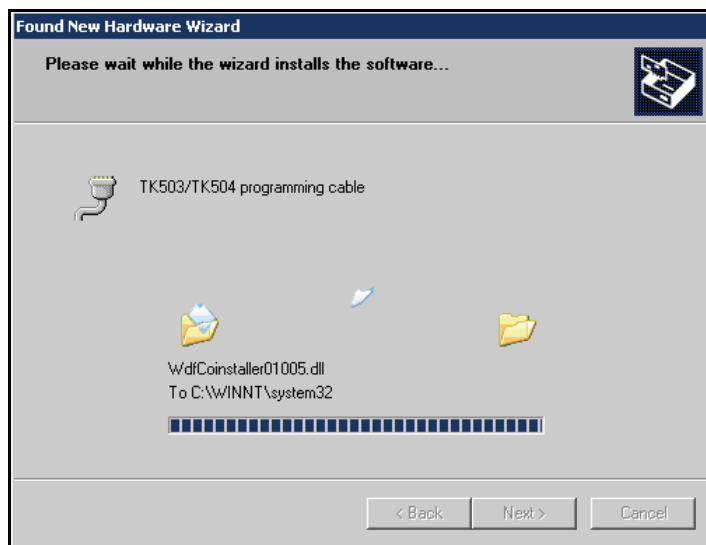
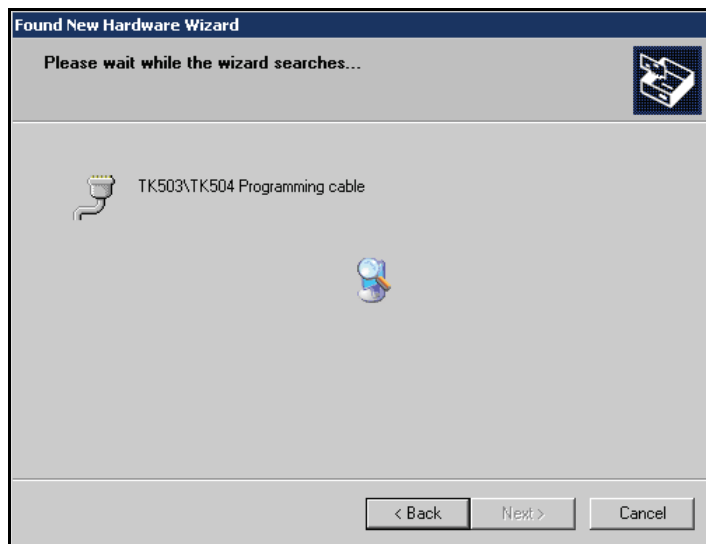
After the TK503/TK504 Programming Cable is plugged in for the first time, Windows detects that a new USB device is connected and the *New Hardware Wizard* window is prompted.



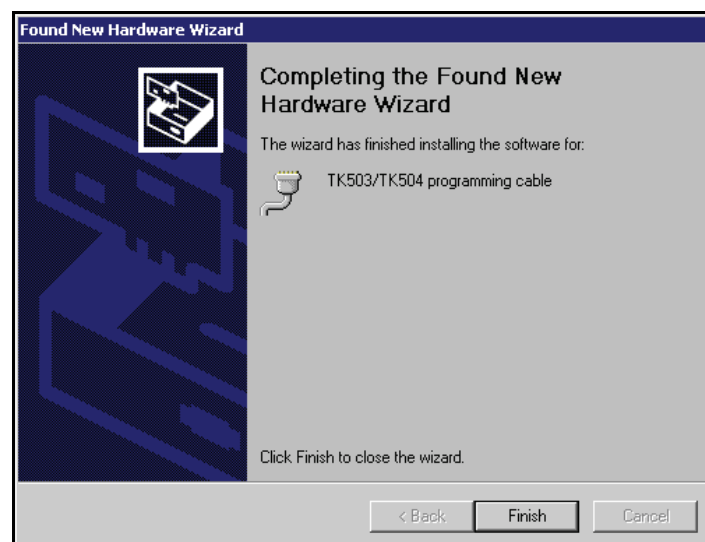
1. Select **No, not this time** and then click **Next**.



2. Select here **Install the software automatically** and then click **Next**.
  - The driver for the TK503 Programming Cable or the TK504 programming cable is searched for and then installed.



The installation is completed once you close the **Completing the Found New Hardware Wizard** window via the **Finish** button.



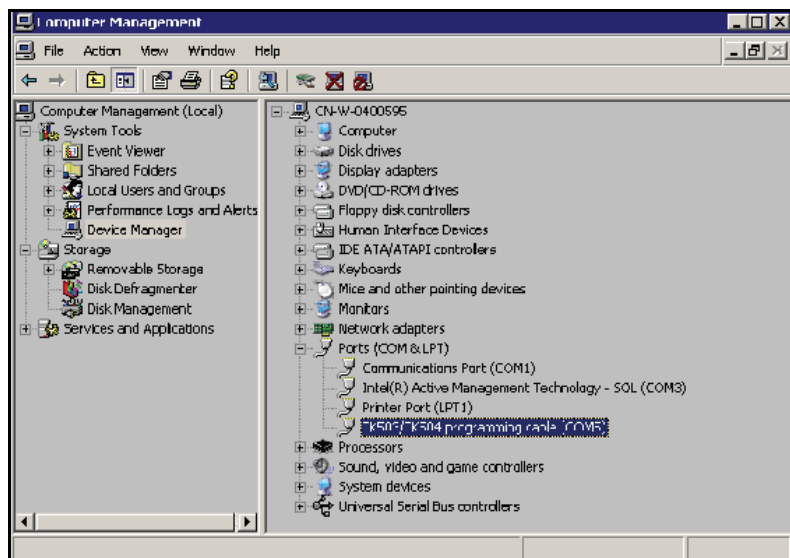
# Communication

## Virtual Communication Port Configuration

If the TK503/TK504 Programming Cable is plugged in a USB interface, Windows creates a virtual communication port (COM Port).

All communication ports can be viewed under Device Manager – ports

1. Open the computer management by clicking **Manage** in the context menu of **My Computer** on your Desktop.
  - You can also check here whether the virtual COM port is available.



You can set the maximum baud rate and change the virtual COM port number in the **Properties** under **Port Settings**.

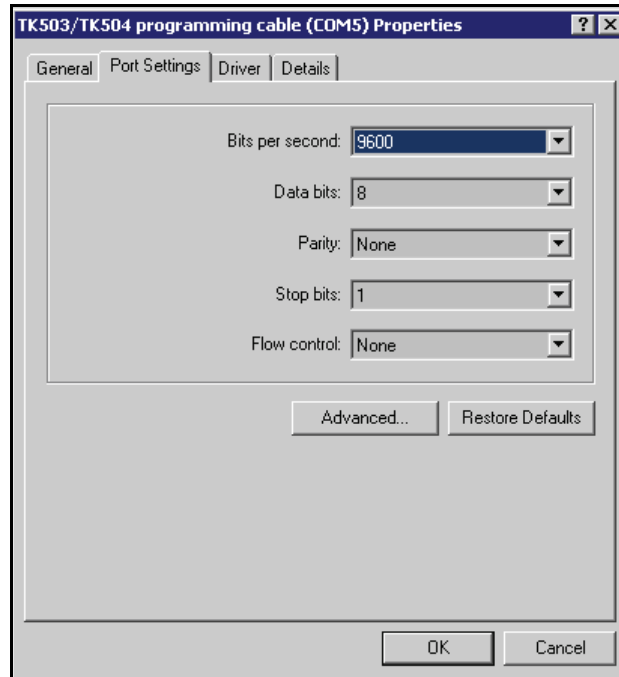


### NOTICE

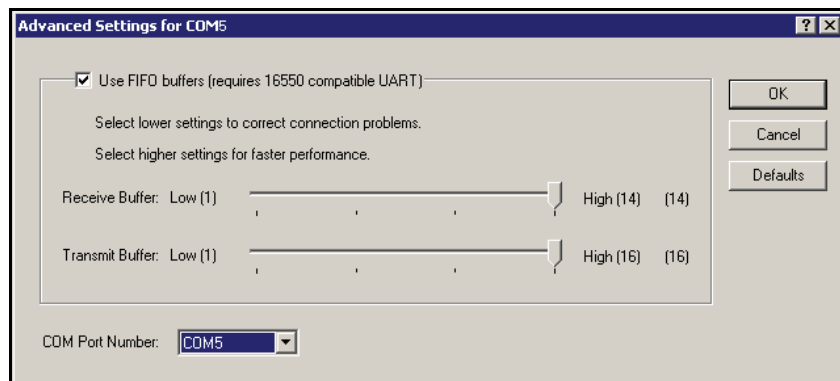
When configuring the communication connection in CoDeSys, the baud rate can also be set separately for each COM connection.



2. Set the baud rate



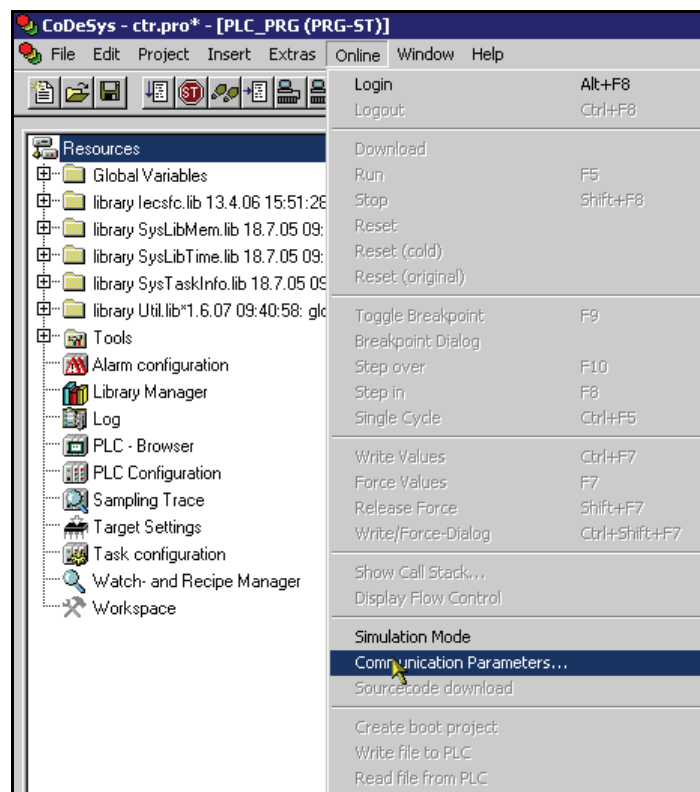
3. Set the COM Port Number under **Advanced...** (up to COM32).



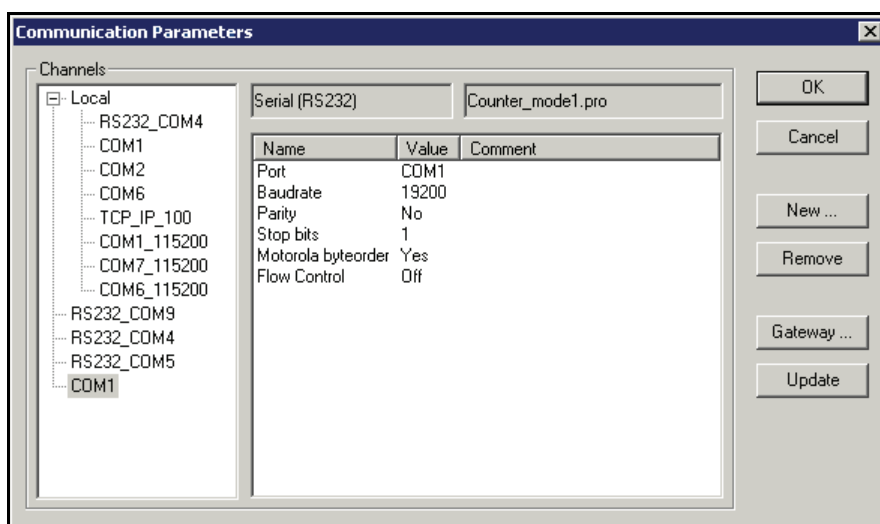
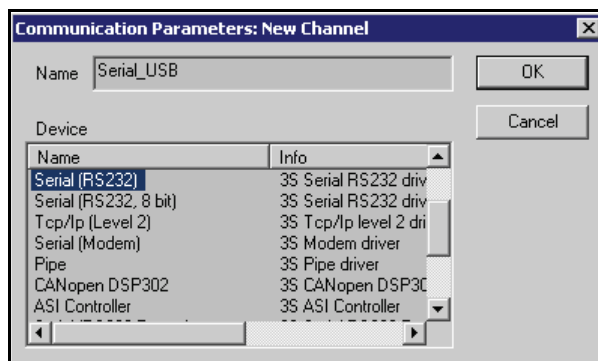
# CoDeSys Communication

In CoDeSys, the communication settings can be done via **Online → Communication Parameters → Port**. After that the TK503/TK504 Programming Cable can work properly to build up communication between CoDeSys and PLC.

- ✓ The following procedure must be observed without fail in order to ensure that commission is carried out correctly.
- 1. Install TK503/TK504 Programming Cable driver.
- 2. Connect the TK503/TK504 Programming Cable to PC.
- 3. Windows detects the new hardware – complete the installation.
- 4. Start CoDeSys and open the project or create a new one.
- 5. Create a new communication channel under **Communication Parameters**.



6. Select the new virtual COM port



**CAUTION!**

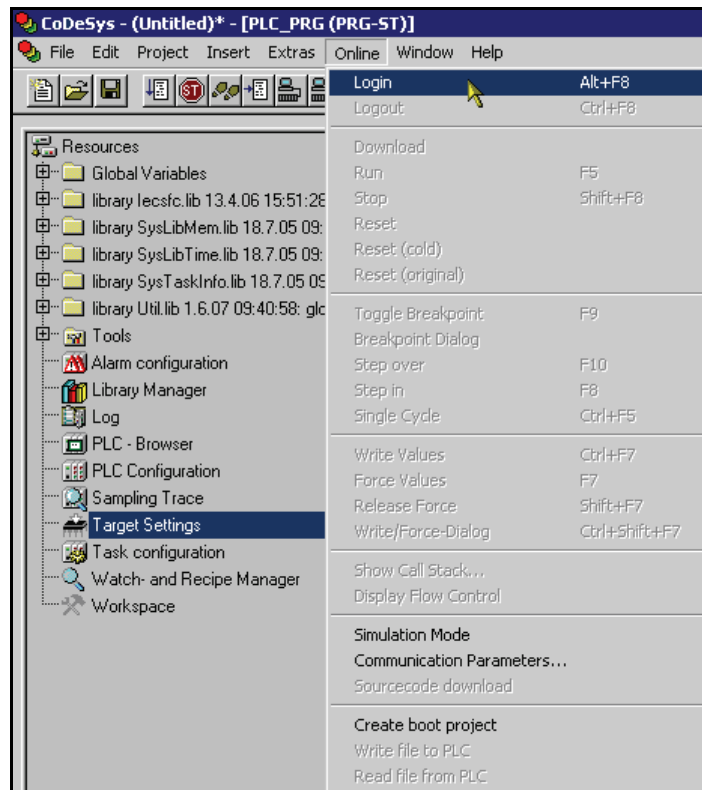
The port number here must be the same as the port number list in the Device manager – Port – TK503/TK504 Programming Cable (COMx), or the communication can not be built up.



**NOTICE**

The number of COM Port depends on the availability on your computer.  
The Baudrate can be selected between 19200 and 115200 bps.

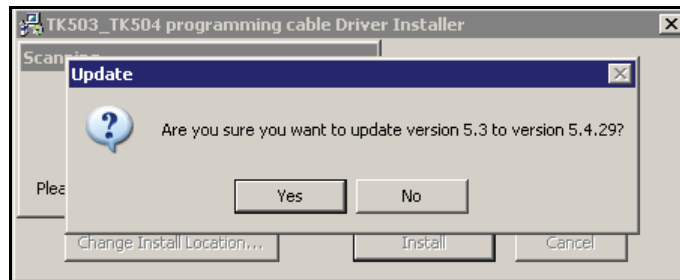
## 7. Login and create the communication between CoDeSys and PLC



# Update

To update the TK503/TK504 Programming Cable Driver, proceed as follows:

1. Start the pre-installation of the new driver version by calling *TK503\_TK504\_Installer.exe* and select the desired installation path.  
For details, see chapter *Pre-Installation Routine*.
2. Start the installation with **Install** button.
  - A message window appears which informs that an older version of this driver has already been installed.

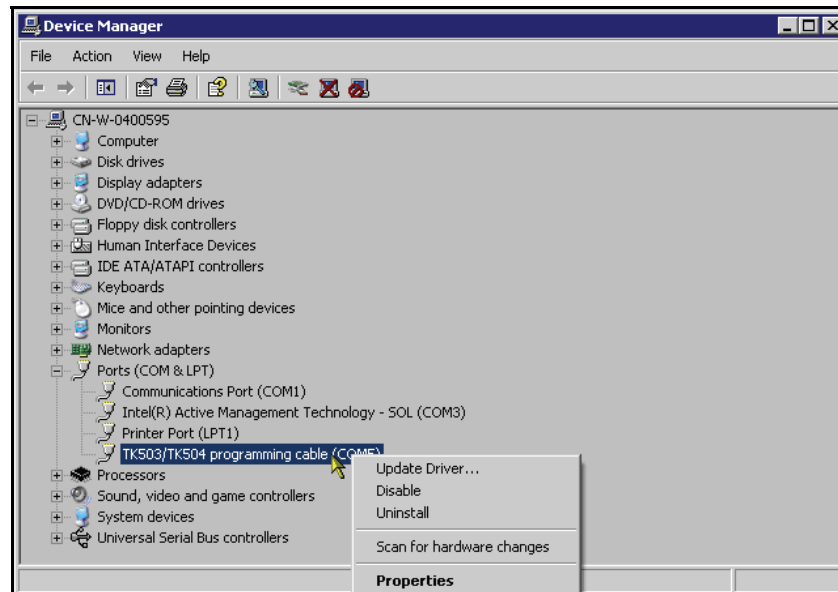


3. Proceed this message with **Yes** button.
  - The driver is updated.

# Uninstallation

To uninstall the TK503/TK504 Programming Cable Driver, proceed as follows:

1. Start the computer management and select the Device Manger. Search for entry **TK503/TK504 programming cable**. Make a right mouse click at this entry and choose **Uninstall** from the context menu.

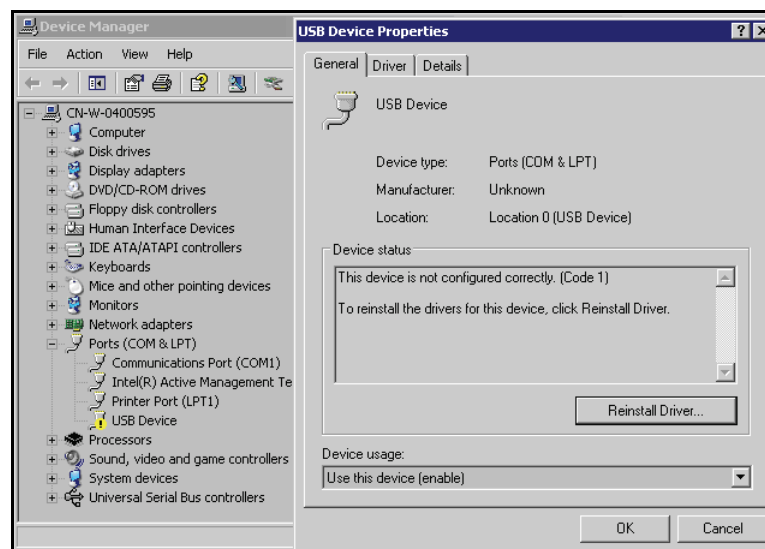


- All driver files from the Windows folder and the pre-installed driver files are removed from PC.



## NOTICE

This only removes the operation of the driver installation routine.  
After that you can reinstall the driver in **USB Device Properties** under **Reinstall Driver**.







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