Application Note

# Installation Instruction for TK503/504 Programming Cable for Windows 7

USB Driver Installation guide

## 1. Introduction

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

## 2. 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 Automation Builder software, driver and utility programs must be installed and a TK503/TK504 Programming Cable must be connected between PLC and PC.

## 3. Installation Requirement

The following installation requirement must be fulfilled:

- Operation system: Microsoft Windows 7
- Administrator rights
- USB port available for connecting the USB-ROM Stick with Automation Builder V1.1 or later and the programming Cable TK503 or TK504

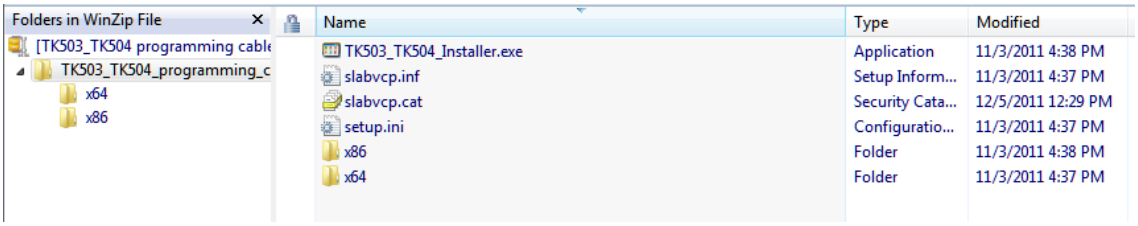
**NOTICE**

## 4. Installation Package

The driver installer is built as a single executable that reference a file called **setup.ini**. This .ini file contains all of the settings used for driver installation and uninstallation. The **TK503_TK504_Installer.exe** and **setup.ini** combo should exist in a directory alongside the .sys driver files, .inf installation files.

The structure of TK503_TK504_Installer Driver Package for Windows XP/7 looks like this:

- TK503_TK504_Installer.exe
- setup.ini (customized setup values)
- x64 (driver and library files 64 bit)
- x86 (driver and library files 32 bit)
- slabvcp.inf (INF file for driver)
- slabvcp.cat




## 5. Installation/Update for TK503/504 driver:

Before you can use the Programming Cables TK503/TK504, the appropriate USB Driver must be installed on your PC or laptop. The driver for the Programming Cables can be found from this link:

http://www.abb.us/abblibrary/DownloadCenter/?CategoryID=9AAC177443&View=Result&DocumentKind=Software&QueryText=PS501-UPDA+OR+DM-UPDA&SortBy=ScorePre-Installation of the driver on your PC using the program **"TK503/TK504_Installer.exe"**.

5.1 Installation of the new hardware in Windows after the TK503/504 Programming Cable is plugged in for the first time.

**NOTICE**

First install the USB drivers before you connect the TK503/TK504 Programming Cable with the PC.

## 6. Driver Installation

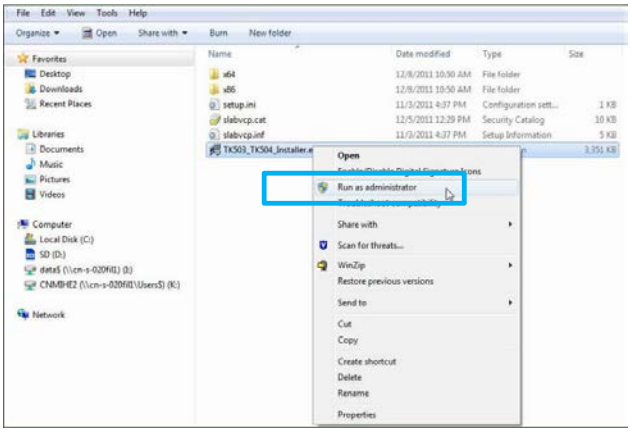
After the TK503/TK504 Programming Cable is plugged in for the first time, Windows will detect and install it automatically and create a virtual communication port (COM Port).

All communication ports can be viewed under **Device Manager -> Ports**. Open the **Device Manager** by right clicking "**Computer**" on your Desktop and choose **Properties –> Hardware –> Device Manager** in the context menu.

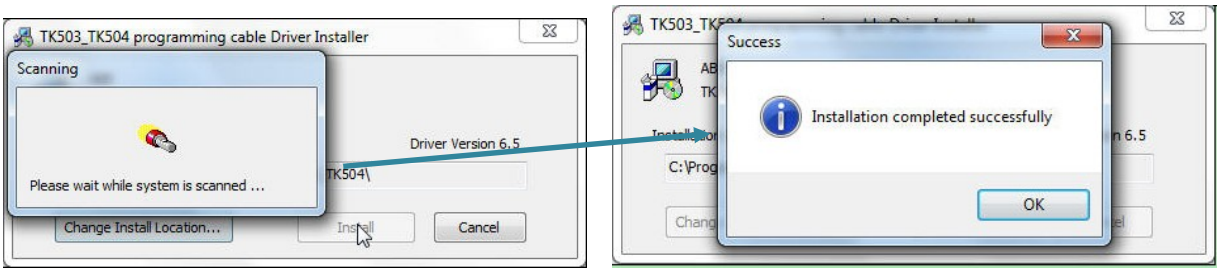
## Installation Directory Selection (Win 7)

If the Windows 7 is 32-bit/64-bit version, the driver installation steps are the same as in Windows XP system. Typical steps can be seen:

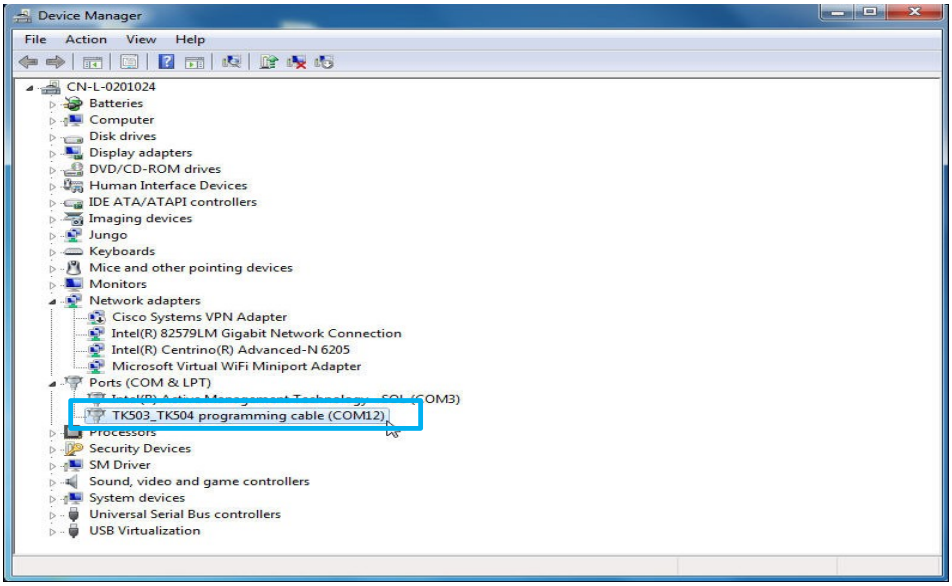
6.1 Right click "**TK503_TK504_Installer.exe**" and run as administrator.



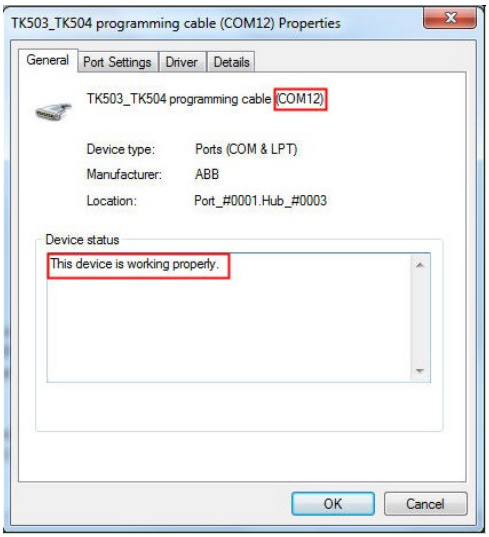

6.2 The following windows will appear.




6.3 Insert the TK503_TK504 programming cable in your PC or laptop, the following window can be seen by right clicking "**Computer**" and choose **Properities -> Device Manager -> Ports (COM & PT).**




6.4 Then right click "**TK503_TK504 programming cable (COM12)**" and you can see the device status is working properly.

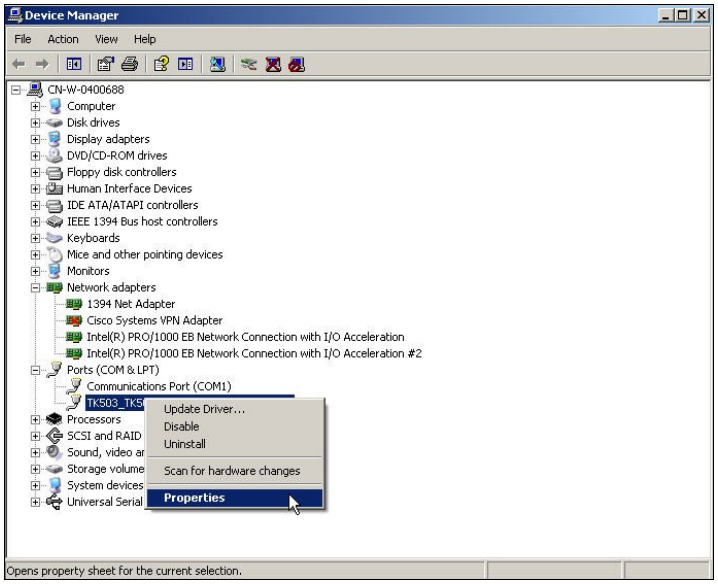



6.5 Connect the TK503_TK504 programming cable to PLC, set communication between CoDeSys and PLC and login to CPU.

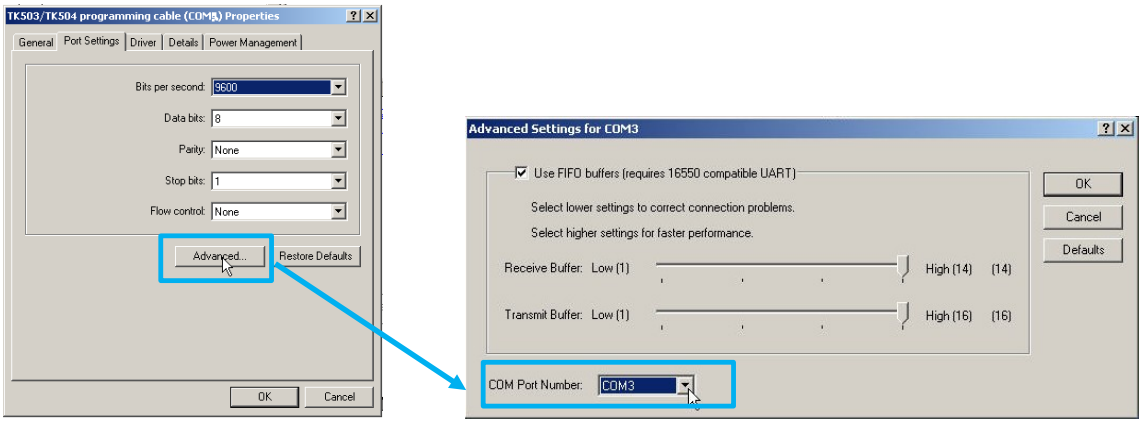
# 7. Using the Communication Port

## 7.1 How to change the COM Port Number in the Windows Device Manager

When the COM port of the driver can not be found in CoDeSys, then the COM port number must be changed. You can change the virtual COM port number in the "**Properities**" under "**Port Settings**" (the programming cable must be connected to a USB port of your computer).



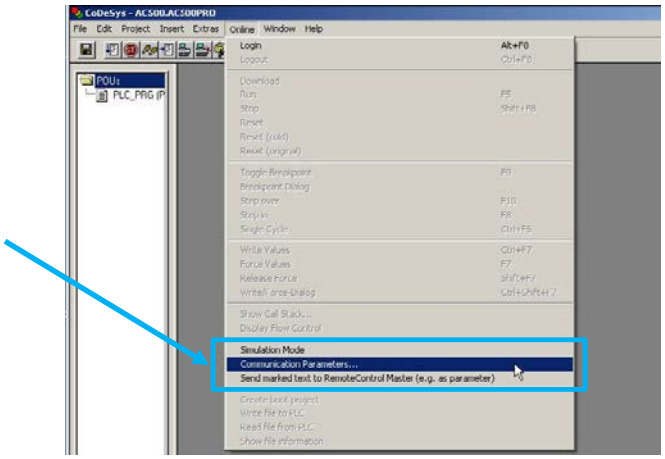

- Click on the line **"TK503/TK504 programming cable (COM…)"** with the right mouse button and select **"Properties"** then select the tab **"Port Settings"** and set the COM Port Number under **"Advanced"**.



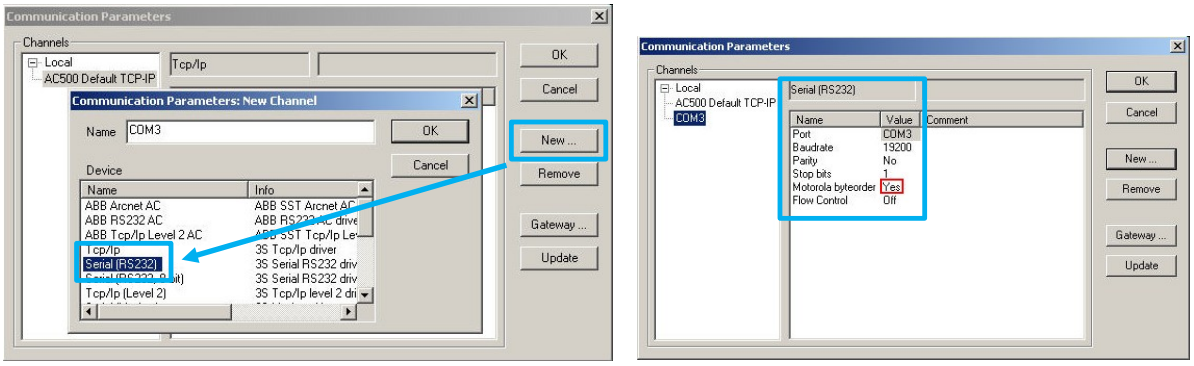

## 7.2 How to setup the TK503/504 driver in the 61131-3 Application (CoDeSys):

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.

- Install TK503_TK504 programming cable driver.
- Connect the TK503 programming cable or TK504 programming cable to PC.
- Windows detects the new hardware – complete the installation.
- Start CoDeSys and open the project or create a new one.
- Create a new communication channel under "**Communication Parameters**".




- Set the new COM port.

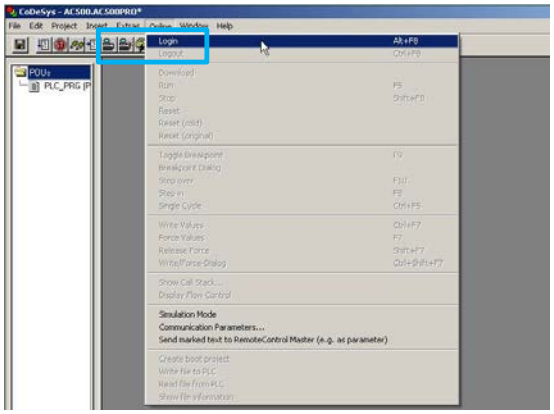


**CAUTION!**

The Port number here must be the same as the Port number list in the **Device manager –> Port –> TK503/TK504 Programming Cable (COMx)**, otherwise the communication cannot be established.
Parameter **"Motorola byteorder"** must be set to **Yes**".

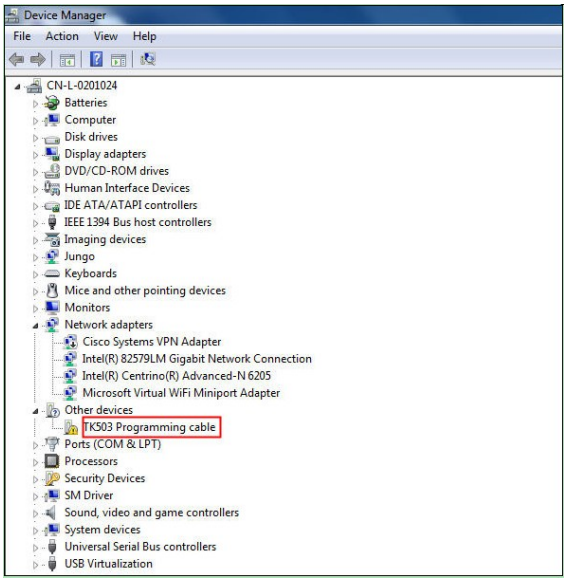
- Login and Create the communication between CoDeSys and PLC.

Before excuting the login command please make sure the COM interface setting in *Automation Builder* software tool should be "COMx – Online Access".




## What do you do if COM Port is not available?

- Right click "Computer" and choose Properties -> Device Manager, if you find the cable under "Other devices" as shown below:




It demonstrates that no driver was found for the TK503 programming cable. This could be the case if you have already connected the TK503 programming cable to your PC without pre-installation of driver on PC's operation system. In this case, proceeds as below:

- Right click the unrecognized device with the question mark symbol and select "Uninstall".
- Then carry out the pre-installation once more as described above before connecting the TK503 programming cable to your PC.