OPERATION INSTRUCTION

PROGRAMMING CABLE TK503 / TK504
USB DRIVER INSTALLATION
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1 Introduction and Basics

1.1 Intended Use

The TK503/TK504 programming cable can be used to operate and to configure the PLC via a PC or laptop. For this, CODESYS software, driver and utility programs must be installed and a TK503 or TK504 programming cable must be connected.

**NOTICE!**
The TK503/TK504 programming cable cannot be used for AC500 V3 Processor Modules.

1.2 PC System Requirements

- Platform: Microsoft Windows Vista, Windows 7, Windows 10
- CD-ROM drive
- USB port available for connecting the TK503/TK504 programming cable

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1.3 Content of the Installation Package

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>x64</td>
<td>File folder</td>
</tr>
<tr>
<td>x86</td>
<td>File folder</td>
</tr>
<tr>
<td>setup.ini</td>
<td>Configuration settings</td>
</tr>
<tr>
<td>slabwcp.cat</td>
<td>Security Catalog</td>
</tr>
<tr>
<td>slabwcp.inf</td>
<td>Setup Information</td>
</tr>
<tr>
<td>TK503_TK504_Driver_Installation.pdf</td>
<td>Adobe Acrobat Document</td>
</tr>
<tr>
<td>TK503_TK504_Installer.exe</td>
<td>Application</td>
</tr>
</tbody>
</table>
2 Installation

2.1 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 driver on your PC using the program TK503_TK504_Installer.exe.
− Installation of the new hardware in Windows after the TK503 programming cable or 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 driver first.

2.2 Pre-Installation Routine

1. Uninstall all existing versions of the driver software.

2. Start the pre-installation of the driver by calling TK503_TK504_Installer.exe.

**NOTICE!**

You must have administrator rights to run the installation.

3. Define the installation directory and click Install.
Windows Vista users only:

Start the `TK503&TK504Installer.exe` with the Run as administrator option, even if you have administrator rights. Acknowledge the following dialog with Allow.

![Image of File Manager and Encryption Process]

Windows 7 users only:

Windows will display an error message after clicking Install.

![Image of Error Message]

On this condition, decrypt the installation folder:

![Image of File Manager and Encryption Process]

Then, start `TK503_TK504_Installer.exe` with the Run as administrator option again.
3 Communication

3.1 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 in the Windows Control Panel under Device Manager.

![Image of Windows Device Manager showing virtual communication ports]

4. In the Ports settings click **Properties** to set the baud rate.
5. Set the COM port number under **Advanced** (up to COM32).

![Advanced Settings for COM5](image)

**NOTICE!**

When configuring the communication connection in CODESYS, the baud rate can also be set separately for each COM connection.
Automation Builder Communication

1. Install TK503/TK504 programming cable driver.
2. Connect the TK503 or TK504 programming cable to a PC or laptop. Windows detects the new hardware – complete the installation.
3. Start Automation Builder and open the project.
4. Right-click the PLC root node and select Communication Parameters.
5. Select the new virtual COM port.

![Automation Builder Communication](image)

**NOTICE!**
The port number must be the same as the port number in the Device manager – Port – TK503/TK504 programming cable (COMx). Otherwise the communication cannot be built up.

The number of COM ports depends on the availability on your computer.
The baud rate can be selected between 19200 and 115200 bps.

6. In CODESYS, create the communication between Automation Builder and the PLC.
### CoDeSys - Application AC500 PRO

#### Online Panel:

- **Login**
  - Alternative: F8
- **Logout**
  - Alternative: Ctrl + F8
- **Download**
- **Run**
  - Alternative: F5
- **Stop**
  - Alternative: Shift + F8
- **Reset**
- **Reset (cold)**
- **Reset (original)**
- **Toggle Breakpoint**
  - Alternative: F9
- **Breakpoint Dialog**
- **Step over**
  - Alternative: F10
- **Step in**
  - Alternative: F8
- **Single Cycle**
  - Alternative: Ctrl + F5
- **Write Values**
  - Alternative: Ctrl + F7
- **Force Values**
  - Alternative: F7
- **Release Force**
  - Alternative: Shift + F7
- **Write/Force Dialog**
  - Alternative: Ctrl + Shift + F7
- **Show Call Stack**
- **Display Flow Control**

### Simulation Mode:

- **Write file to PLC**
- **Read file from PLC**
- **Show file information**
- **Send marked text to RemoteControl Master (e.g., as parameter)**
- **Create boot project**
5 Uninstallation / Update

1. In the Windows Control Panel open the Device Manager.

2. Right-click on the entry **TK503/TK504 programming cable** and select **Uninstall** or **Update Driver**.