

# Handling-Shortinstruction for S7-USB V1.0



## S7-USB (Art.nr: 9352-S7-USB) for the Simatic S7-200 to S7-400

The module is connected directly to the MPI/Profibus-interface of the S7-PLC. The connection of the USB-socket is identical to that of a normal USB-device. You will need a USB-cable type A to type mini-B (item no. 9352.3).

Since this module does not have a keyboard, the configuration is carried out via the TIC interface configurator.

The basic configuration of this module is set so that you can plug the module into the standard MPI/Profibus-interface and access it immediately with the TIC. Active bus-parameter-protocols are required for this standard operation.

## Installation USB-driver

When you connect the module to the PC for the first time, it is recognized by your Windows PC, but no driver is installed.

To do this, please download the USB-driver "USB-driver 32- and 64-bit" from the product page from the tab "Downloads" => "main downloads". Please save and extract the file on the desktop of the PC.

Now open the "Device Manager" of your Windows-PC, you need *admin rights* to install the USB-driver! You can find the "Device Manager" via the system function or by pressing the two keys on your keyboard "Windows key" and "Pause-key", in the opened System-window at the top left side.

The S7-USB is then entered under "Other devices" in the "Device Manager". Now right-click with the mouse on the entry and select the entry "Install driver". Do not search in the Internet, but locally on the PC. Then select the path where you have extracted the USB-driver-file. The driver is dependent on the version of the operating system :

32-bit in the subfolder „USB-Treiber-x86“

64-bit in the subfolder „USB-Treiber-x64“

After the folder has been selected, the USB driver is installed in the system. After the installation is complete, the entry "PI-USB-Device" is in the section "USB-Controller" in the device manager. The USB-driver was installed successfully.

### **USB driver installation and HCVI:**

From Win10 Build 1803 there is a kernel isolation called "HCVI". Problems can occur during installation with activated "HCVI". The error message is:

*The device driver for this hardware cannot be loaded.  
The driver may be damaged or missing. (Code 39)*

The only remedy is to deactivate "HCVI", call up the registry editor via "*Run as administrator*" and then navigate to the key:

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Control\DeviceGuard\Scenarios\HypervisorEnforcedCodeIntegrity

There set the DWORD value "*Enabled*" to 0 (see also:

<https://web.archive.org/web/20190420022748/https://docs.microsoft.com/en-us/windows/security/threat-protection/windows-defender-exploit-guard/enable-virtualization-based-protection-of-code-integrity>).

Then Windows 10 must be restarted. Then "HCVI" should be deactivated and the installation of the USB driver must work.

### **Installation of the TIC (driver for Simatic-Manager and TIA)**

Install the TIC-driver on your PC (see attached link to the homepage). After the restart of your pc you can find the driver in your Simatic-Manager in "Setting the PG/PG-Interface". Open the properties of the correct driver "TIC ETH/USB" for MPI, PPI or Profibus. Set the S7-USB device. There is also the possibility to automatically identify possible modules with "search". You will now see all possible modules with their names. Select and accept the module to be used and the driver will establish the connection. Please make sure that the USB driver has been installed beforehand. Otherwise no communication is possible.

### **Installation PLCVCom (virtual COM-port for other applications like PG-2000)**

Install the PLCVCom-software on your PC (see attached link to the homepage). After the restart of your pc, the software PLCVCom will be started automatically. Please click on the icon (near of the time information in the status line of your windows) of the PLCVCom software and you get a new window. Please press "configure" and you get a new information window. Now select the S7-USB with which you want to communicate. There is also the option of "Search" the module automatically. You will now see all possible recognized cable types. Select and accept the cable to be used and the PLCVCom software immediately provides the configured COM port. Please make sure that the USB driver has been installed first, otherwise we will not find and display any USB product.

The virtual COM port is only visible, adjustable and accessible when the PLCVCOM is in the "connected" state, ie an existing cable can be addressed.

Siemens supports on 64-bit operating-systems no more "serial" driver like as "PC Adapter" with COM port. These drivers can't be used anymore.

More on the interface cables and the current manual for MPI-LAN, MPI-II, MPI-USB, S7-USB, S5-LAN and S7-LAN can be found on the product-page of this product. Link on further pages.

# Further interface-cable for S7

## MPI/PPI-Kabel 9350 for Simatic S7-200 up to S7-400

Please connect the cable to the serial port (Com-Port) of your pc and to the MPI- or PPI-Port of your plc.

After, the cable has been started, you can see in the display of the cable how much devices and their address are connected to the bus. In your S7-programming software you should configure following:

Siemens S7-300/400: [STEP7]

Under *options* → *Set PG/PC Interface...* please select the driver "PC-Adapter [MPI]" and configure it like the properties of the mpi-bus. If your software don't have this driver, you should have to install it now. You don't need the software CD, the driver is included in your Siemens software. You should press the button "Add/remove" in this menu.

You can also install the driver called "MPI-Speed" (see link to the homepage) to your system. This driver allows to communicate serial up to 115K2 Baud. The original driver "PC-Adapter [MPI]" only provides baudrates up to 38K4 Baud.

**Attention:** Siemens don't provide on operating-systems from Win7 64-bit and newer any serial products. You don't find in the properties of the driver any possibility to select a Com-port!

Siemens S7-200: [MicroWin]

Under *Set PG/PC Interface...* please select the driver PC/PPI-cable. The configured PPI-baudrate of 9K6 or 19K2 will be recognised of the connected MPI/PPI-Kabel. Please note, that the cable will make this only after starting up. If you have a change of the baudrate, please restart the cable!

This cable is not able to drive with a MultiMaster – network.

**Attention:** Siemens don't provide on operating-systems from Win7 64-bit and newer any serial products. You don't find in the properties of the driver any possibility to select a Com-port!

PG-95/2000:

Under *option* → *interface* you select the com-port and the baudrate up to 115K2 Baud.

S7 for Windows:

Under *file* → *properties* → *interface* select the protocol for "MPI Converter (Simatic S7)" and configure the correct com-port and the baudrate up to 115K2.

## MPI-II-Kabel 9352 for Simatic S7-200 up to S7-400

Please connect the cable to the serial port (Com-Port) of your pc and to the MPI- or PPI-Port of your plc.

After, the cable has been started, you can see in the display of the cable how much devices and their address are connected to the bus. In your S7-programming software you should configure following:

Siemens S7-300/400: [STEP7]

Under *options* → *Set PG/PC Interface...* please select the driver "PC-Adapter [MPI]" and configure it like the properties of the mpi-bus. If your software don't have this driver, you should have to install it now. You don't need the software CD, the driver is included in your Siemens software. You should press the button "Add/remove" in this menu.

For the connection to the profibus, please use the driver "PC-Adapter [Profibus]".

**Attention:** Siemens don't provide on operating-systems from Win7 64-bit and newer any serial products. You don't find in the properties of the driver any possibility to select a Com-port!

Siemens S7-200: [MicroWin]

Under *Set PG/PC Interface...* please select the driver PC/PPI-cable. The configured PPI-baudrate of 9K6 or 19K2 should be configured in the cable. Please go to the menu item *config* → *mode* and select it.

This cable is only able to drive with a MultiMaster – network with serial communication!

**Attention:** Siemens don't provide on operating-systems from Win7 64-bit and newer any serial products. You don't find in the properties of the driver any possibility to select a Com-port!

PG-95/2000:

Under *option* → *interface* you select the com-port and the baudrate up to 115K2 Baud.

S7 for Windows:

Under *file* → *properties* → *interface* select the protocol for "MPI Converter (Simatic S7)" and configure the correct com-port and the baudrate up to 115K2.

The MPI-II-Kabel can be connected also with USB to the pc. For this, you should use a cable for USB plug ↔ plug and type A ↔ A. If your pc want to start the installation-manager, please stop it and close it. Please install the software-tool "TIC-driver" (see link to the homepage) on this PC. Please look also at "Installation TIC-driver". Please select this driver in the setting PD/PC-interface und your used programming-software will with the MPI-II-cable communicate with USB.

You don't have to configure the MPI-II-Kabel for this communication, because, after rebooting the cable recognises the first communication (serial or USB) and uses this port.



#### **MPI-USB 9352-USB for Simatic S7-200 up to S7-400**

The cable will be plugged in the USB-port of your pc and the MPI- or PPI- or Profibus-port of your plc.

After, the cable has been started, you can see in the display of the cable how much devices and their address are connected to the bus.

Please install the software-tool "TIC-driver" (see link to the homepage) on this PC. Please look also at "Installation TIC-driver". Please select this driver in the setting PD/PC-interface und your used programming-software will with the MPI-II-cable communicate with USB.

You don't have to configure the MPI-II-Kabel for this communication, because, after rebooting the cable recognises the first communication (serial or USB) and uses this port.



#### **MPI-LAN 9352-LAN for Simatic S7-200 up to S7-400**

The cable will be plugged to the network port of your pc and the MPI- or PPI- or Profibus-port of your plc.

Or, you can connect the MPI-LAN with a Crossover-adaptor to the wall network port or to a hub/switch with an automatic recognising of the correct pinning. This module use a integrated keyboard, but the comfortable way is using the integrated webserver. For this action, you connect the PC and this module via network and write down in the browser the ip-address of this module <http://192.168.1.56> (default address). Now, you are possible to change the configuration and the ip-address, also.

Please install the software "TIC-driver" (see link to the homepage) on your PC. Please look at the note "installation TIC".

Now you are able to work with this driver with the same settings like the MPI-II-cable.

The basic-settings of this cable are so defined that you would be able to connect the cable directly to the standard-mpi-port and communicate with this driver.

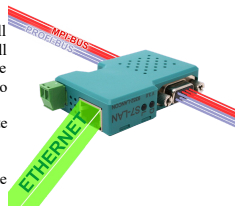
#### **S7-LAN 9352-LANCon for Simatic S7-200 up to S7-400**

The module will be connected direct to the mpi/profibus-port of the S7-plc. The connection of the RJ-45-port will be the same connecting a PC to the network. This module don't use a integrated keyboard so the configuration will be done with the integrated webserver. For this action, you connect the PC and this module via network and write down in the browser the ip-address of this module <http://192.168.1.56> (default address). Now, you are possible to change the configuration and the ip-address, also.

Please install the software "TIC-driver" (see link to the homepage) on your PC. Please look at the note "installation TIC".

Now you are able to work with this driver with the same settings like the MPI-II-cable.

The basic-settings of this module are so defined that you would be able to connect the module directly to the standard-mpi-port and communicate with this driver.



#### **S7-BRIDGE 9352-S7-WIFI for Simatic S7-200 up to S7-400**

The module will be connected direct to the mpi/profibus-port of the S7-plc. The connection of the RJ-45-port will be the same connecting a PC to the network. This module don't use a integrated keyboard so the configuration will be done with the integrated webserver. For this action, you connect the PC and this module via network and write down in the browser the ip-address of this module <http://192.168.1.56> (default address). Now, you are possible to change the configuration and the ip-address, also.

To use the WLAN section, connect your PC to the "S7-BRIDGE" WLAN network and open the S7-BRIDGE website at <http://192.168.1.55> (address at delivery). Here you can set and apply the parameters regarding WLAN. Of course, the WLAN connection is also available to the PLC interface.

Please install the software "TIC-driver" (see link to the homepage) on your PC. Please look at the note "installation TIC". Now you are able to work with this driver with the same settings like the MPI-II-cable.

The basic-settings of this module are so defined that you would be able to connect the module directly to the standard-mpi-port and communicate with this driver.



#### **MPI-Modem**

The TS-possibility allows the connection of a modem, to make a connection with a 2<sup>nd</sup> Modem and a PC to a S7-300/400. The MPI-Modem must be connected to an analogue telephone line and the PLC.

To work with the MPI-Modem in his TS-function, you must make the following actions: you need the TeleService-software from Siemens in your PC to work with the MPI-Modem. The configuration of the MPI-Modem can be made with the TeleService-software from Siemens or with the "MPI-Kabel Manager".

On the PC side you need another modem.



**Menutree Website:**

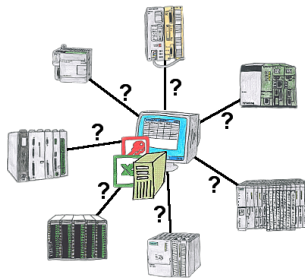
- + Products / docu / downloads
- + Hardware
  - + Programming devices
    - + S7
    - + USB
    - + S7-USB

**QR-Code Website:**



Please make sure to update your drivers before using our products.

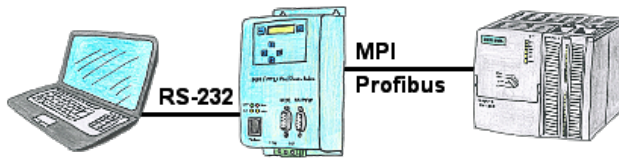
Communication with PLCs without knowledge of the specific protocol



Who does not know the problem for a production-analysis still lack data that is stored in the controller. Without PLC-specific programming-packages you can not get the data and the software-technician has no time.

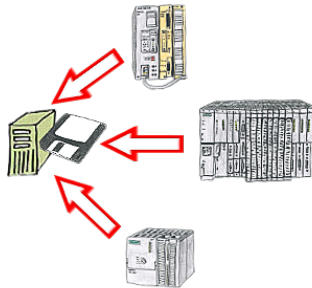
A one-time change to the evaluation-tool, the PLC-specific DLL-file integrated (also at Excel, Access, ...) and functions for reading and writing data of the controller are available.

## Use on-site without PC-adapter?



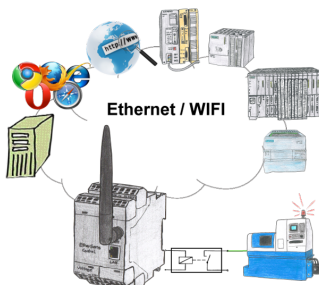
With the MPI/PPI/Profibus-modem you can connect serial to your PC/laptop and then communicate directly with the PLC without a PC-adapter or other S7-programming cables.

## Data logging of your PLC



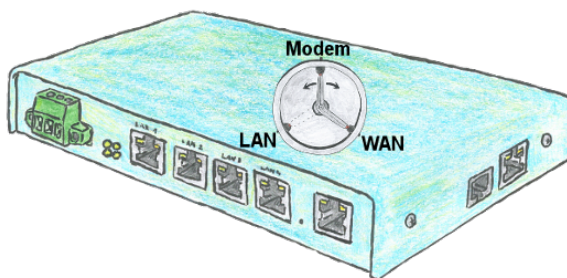
You shortly need a logging of your PLC's operating states respectively are on the way of figuring out a problem and have no datalogger? No problem, connect the PC, start the PG-2000-software with "option datalogger", define relevant variables, appoint timestamp and then the recording starts running immediately. The data will be stored on the fixed disc according to the configuration.

## Relaycontacts 230VAC/16A directly over WIFI/LAN



Switch with the EtherSens Control with relay-output easily and directly over LAN or WIFI up to 230VAC/16A, switchable over web-browser, TCP/IP-protocol or PLC-controlled. At the same time you monitor the switching-states on the optional SD-card or on the FTP server.

## Universal router



You need to be realized a flexible device for the remote maintenance of your systems? No problem with the TELE-Router you have a device that you can set easily and quickly to the requirement. Whether you need a connection between the modem and LAN, modem and WAN or LAN and WAN.

## WIFI not allowed, what now?

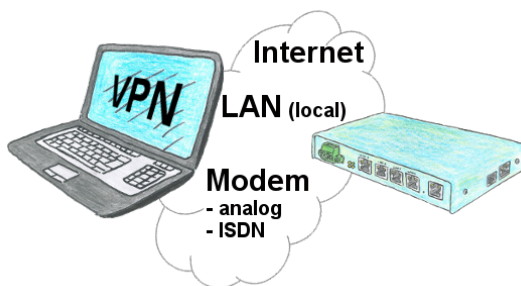


You may not use WIFI in your environment?

Connect the USB-ETHERNET-adapter to the ProfiNet-WATCHDOG's USB-port and create another Ethernet-socket.

Connect your PC directly with LAN-cable to the ProfiNet WATCHDOG.

## Secure access through VPN



Secure connection via network or internet or via modem-line with VPN?

The TeleRouter fulfills all of these requirements. It contains an engine for VPN, regardless of whether a server or a client is required. Configuration of the VPN-engine and the device in general via the integrated web-server.

A corresponding VPN-client for Windows can be downloaded free of charge as an installation-script from the download-page.