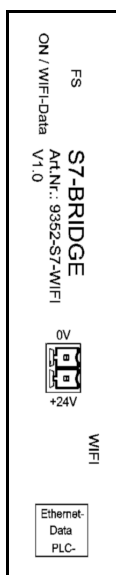


# Handling-Shortinstruction for S7-BRIDGE



**connects all your controllers to PN / DP / MPI / PPI over LAN and WIFI**

## 1.) Connection/Labeling



The S7-BRIDGE has the following label printed on the top side (side of the free PG socket).

FS: Factory setting of the WIFI router  
(3s hold down with a paper clip, then the Factory setting triggered, the device makes a reboot )

ON/WIFI: ON-LED, with WIFI-communication this LED flashes additionally

Assignment of voltage connection (top view):

Upper pin :	0V
Lower pin (towards the RJ45 socket) :	+24V DC

RJ45-socket with LEDs:

Upper LED:	Link and ethernet-communication to the router
Lower LED:	Link and communication to the S7-PLC

## 2.) Voltage connection

The module is plugged into the PG interface of the S7 PLC. If this PLC controller does not output 24V DC at this interface, the module can be powered externally. The assignment of the small connector is shown in the chapter above .

**Check the assignment of the Phoenix-plug before using the external power-supply! The module itself is protected against reverse polarity, but it can not be guaranteed if it is plugged onto another module .**

### 3. WebServer of WIFI-router

To access the device's website, all you need is a web browser (for example, Microsoft Internet Explorer, Mozilla Firefox, or Google Chrome). The website access is independent of the operating system or web browser of the computer used .

The web server of the device can be reached via WIFI or Ethernet. The factory IP-address is 192.168.1.56 with the subnet mask 255.255.255.0.

On delivery, the device is a WIFI access point and there is nothing in the way of connecting to the laptop with the SSID "S7-Bridge WiFi". There is no encryption required. The access is free .

Of course, the device can also be addressed via the integrated Ethernet interface with the known IP-address .

Communication with the S7 PLC via the integrated S7 LAN module is possible with the same IP-address 192.168.1.56 and subnet mask 255.255.255.0. The TIC-driver is required for operation with the Simatic-Manager or TIA-Portal. Both „devices“ use the identical IP-address!

**Attention:** To ensure communication via the S7-BRIDGE and the integrated S7-LAN module, the PC and the S7-BRIDGE must be in the same subnet!

### 4. Installation of the integrated Step7 driver "TIC"

Please install the TIC driver (see link to homepage). The installation will guide you through all necessary points. After a computer restart, the driver is automatically included in the Simatic Manager in the PG / PC interface. Open the properties according to the driver "TIC ETH / USB" for MPI, PPI or Profibus. Set the IP address of the S7-LAN of your S7-BRIDGE to be used. **There is also the possibility to automatically detect possible modules with "search". You will now be shown all possible modules with IP address and name. Select and accept the module to be used and the driver will establish the connection.** Please check if the PC has its own fixed IP address. If the IP address is assigned by a DHCP server, it must be checked whether the computer still has an IP address when operating without a network. Otherwise, no communication is possible.

More about the S7-BRIDGE and the current device manuals for S7-BRIDGE and S7-LAN can be found on the product page.

## Alternative S7-interface-product (only LAN)

**S7-LAN-module (art.nr: 9352-LANCON)**

**Simatic S7 network adapter for PPI-MPI-PROFIBUS network for every S7 controller in less than 3 minutes**

Your advantage:

The S7-LAN module is a reliable and handy S7 network adapter for every **PPI, MPI - and PROFIBUS**.

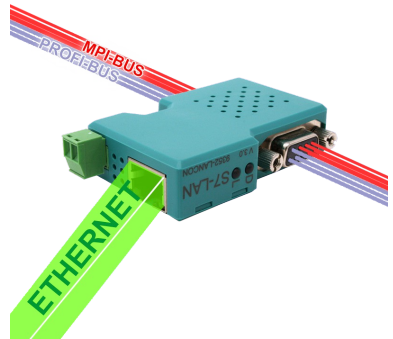
It's compact design, in a **PROFIBUS connector** case and it's power supply directly from the CPU, enable the possibility to a **PLC, to be connected to the Ethernet in less than 5 minutes.**

Bus protocols, including baud rate and HSA, are automatically detected and set in the module.

Thus give all devices like HMI devices, e.g. **current panel series** , as well as any other S7-Ethernet device the opportunity to be connected directly via **S7-TCP-IP**.

Quite simple directly from Siemens **TIA** , **Simatic Step7 Manager** and **WinCC** projects out.

Thanks to the integrated TIC driver without project changes.



## Application areas:

- **PUT / GET** for **S7-1500/1200/300/400** (PN or with Ethernet-CP) with specified and unspecified connection possible.
- **VPN remote maintenance** function, to maintain the PLC via the Internet.
- Read the cyclic time from the NTP server and set in all of the connected PLC controller.
- PLC-Coupling with DB-Transfer to S7-LAN, **S7-Gateway** , **S7-CP** , S5-LAN or **S5-Gateway**.
- Any TCP device writes / reads DBs in S7-300 / 400 controller
- Monitor variables in WebServer **without Step7 programming package**.
- Analysis the connected bus system with spikes and error counter.
- **MPI / Profibus adapter** for S7 - 300 400 / PPI - Adapter for S7 - 200

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

The cable/module 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. The S7-USB shows you its state with integrated 2 LEDs, green: Power/mpl-communication, yellow: error with flashing code.

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 and 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 uses an 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-mpl-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 its 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:**

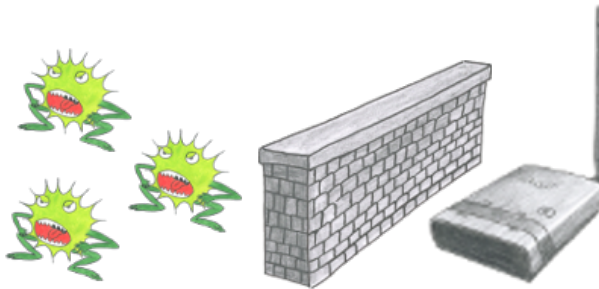
- + Products / docu / downloads
- + Hardware
  - + Programming devices
  - + Programming adapter S7
  - + LAN
  - + S7-BRIDGE

**QR-Code Website:**



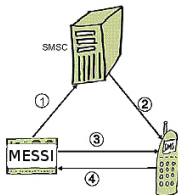
Please make sure to update your drivers before using our products.

Integrated firewall
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You use ALF as a WLAN-router to connect your PC with the internet. No Problem, this Sie nutzen ALF als WLAN-Router um Ihren PC ins Internet zu bringen. Kein Problem, ALF masters this task without problems. Its built-in firewall ensures that no hacker from outside changes your configuration or moves in your network.

## Message via SMS (SMSC)



1. Senden einer SMS
2. Weiterleiten auf Handy
3. Aktiver "Weckruf" und Aufforderung zur Quittierung
4. Quittierung

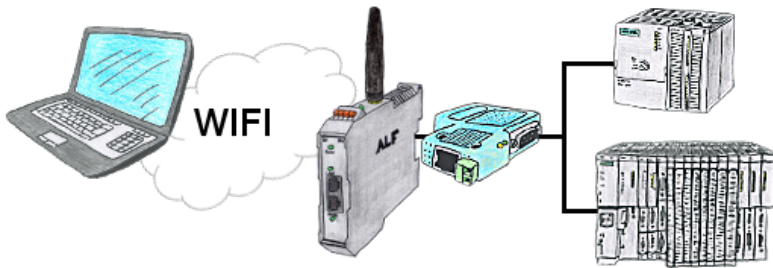
A SMS to a mobile phone is basically send by SMSC. Within the GSM-network it takes place via on-net SMSC. Thereby it's unimportant in which mobile network the receiver is.

The message is activated by:

- digital contacts (relays, motion detector...)
- serial interface (PLC, PC, Microcontroller ...) bitserial (PLC)

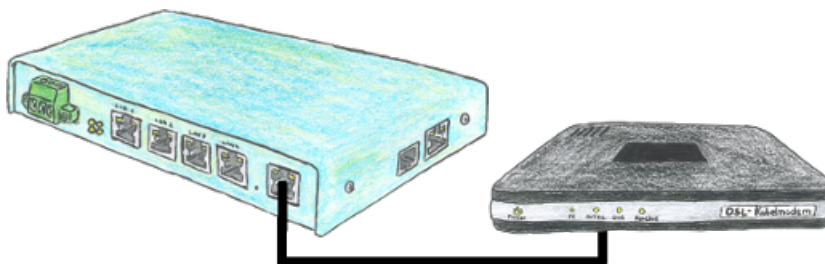
The detection system transmits the SMS to the mobile network operator. The mobile network operator provides the SMS to the mobile phone. Optionally the detection system dials the mobile phone to wake up" the receiver or to initiate the confirmation handling.

## Without LAN-cable round of the PLC



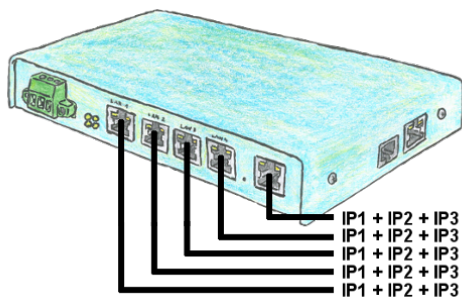
You're right in the middle of your production line and should move around the machine and simultaneously observe / manage. No problem, you parameterize the ALF, connect to the S7-LAN and connect to the WIFI-network of the ALF and are ONLINE on the PLC.

## Operation on DSL-cable-modem



You are looking for a device which can be operated even with DSL? No problem, just plug in your TELE-router to a DSL cable modem, enter the parameters relating to the access data into the device and you are connected to Internet.

## Universal network-administration



You need to remote maintenance multiple networks simultaneously and your existing switch / router does not have that many ports? No problem, with the TELE-Router you are able to assign up to 3 IP addresses to each LAN / WAN port, so you can communicate with the various segments and networks.