

Operating instructions

TELE-Network

user's manual

englisch

for

TELE - LINK,

TELE - BOOK

and

TELE-PROFessional

Version 5.0

© 1994 - 2001 by PI + TIS

Operating instructions Tele-Network

Contents:

1	PREFACE	6
2	US-FCC-RULES FOR DEVICES WITH US-MODEM	6
2.1	SPECIAL INFORMATION ON TELE-LINK	7
2.2	SPECIAL INFORMATION ON TELE-BOOK.....	7
2.3	SPECIAL INFORMATION ON TELE-PROFESSIONAL.....	7
3	FEATURES	8
4	INSTALLATION	11
4.1	REQUIREMENTS	11
4.2	PIN ASSIGNMENT OF THE TELE-NETWORK DEVICES.....	11
4.2.1	<i>TELE-LINK</i>	11
4.2.1.1	Telephone Connection.....	11
4.2.1.2	PG-Connection.....	12
4.2.1.3	PLC-Connection.....	12
4.2.1.4	Voltage Connection.....	12
4.2.2	<i>TELE BOOK</i>	12
4.2.2.1	PCMCIA-Modem-Connection	13
4.2.2.2	PG-Connection	13
4.2.2.3	PLC-Connection.....	13
4.2.2.4	Voltage Connection.....	13
4.2.3	<i>TELE-PROFessional</i>	14
4.2.3.1	Telephone Connection.....	14
4.2.3.2	PG-Connection.....	14
4.2.3.3	PLC-Connection.....	14
4.2.3.4	Voltage Connection.....	14
5	HANDLING	16
6	FIRST CONFIG	17
7	MENU TREE	21
7.1	MENU ITEM MESSAGES.....	25
7.2	MENU ITEM HANG UP.....	25
7.3	MENU ITEM SELECT SUBSCRIBER	25
7.4	MENU ITEM EDIT SUBSCRIBER	25
7.5	MENU ITEM ONLINE ACTION	26
7.5.1	<i>Hang up</i>	26
7.5.2	<i>Lift</i>	26
7.5.3	<i>Data Mode</i>	26
7.5.4	<i>Voice mode</i>	27
7.5.5	<i>Init Modem</i>	27
7.5.6	<i>Login remote</i>	27
7.5.7	<i>Transmit programme</i>	27
7.5.8	<i>Fetch Programme</i>	28
7.5.9	<i>Remote Config ON</i>	28
7.6	MENU ITEM FIRST CONFIG	28
7.7	MENU ITEM CONFIGURATION	31
7.7.1	<i>Device type</i>	31
7.7.2	<i>Device Name</i>	32
7.7.3	<i>PG-MUX-Mode (Only for PLC-TELE and S5)</i>	32
7.7.4	<i>Telephone</i>	32
7.7.4.1	Dial mode	32
7.7.4.2	Extension.....	32
7.7.4.3	Outline Code	33
7.7.4.4	Count of Rings	33
7.7.4.5	Busy Identify.....	33
7.7.4.6	PCMCIA-Modem type (Only with TELE-BOOK).....	34

7.7.5	<i>Connection</i>	35
7.7.5.1	Hangup hearing	35
7.7.5.2	Max. Connect time	35
7.7.5.3	Max. Idletime	35
7.7.5.4	Baud rate manual	35
7.7.6	<i>Recallmode (Only for PLC-TELE)</i>	36
7.7.7	<i>Recallnumber (Only for PG-TELE)</i>	36
7.7.8	<i>Access code</i>	36
7.7.8.1	PIN device local	36
7.7.8.2	PIN plc local	36
7.7.8.3	PIN device remote	36
7.7.8.4	PIN plc remote	37
7.7.9	<i>S7-Config (Only for PLC-TELE)</i>	37
7.7.9.1	Local MPI-Adress	37
7.7.9.2	Max. MPI-Adress	37
7.7.9.3	S7-MPI-Adress	37
7.7.9.4	S7-Poll-List	38
7.8	MENU ITEM OPTIONS	39
7.8.1	<i>Pager-TELE</i>	39
7.8.1.1	PAGER operation	39
7.8.1.2	PAGER flag	39
7.8.1.3	PAGER-COM-DB	39
7.8.2	<i>PLC/ASCII-TELE</i>	39
7.8.2.1	Modem Control	39
7.8.2.2	Modem flag	40
7.8.2.3	SPS-TELE operation	40
7.8.2.4	SPS-TELE flag	40
7.8.2.5	SPS-TELE-COM-DB	40
7.8.2.6	ASCII operation	40
7.8.2.7	ASCII flag	40
7.8.2.8	ASCII-COM-DB	40
7.8.3	<i>Fax-TELE</i>	41
7.8.3.1	FAX-TELE operation	41
7.8.3.2	FAX-TELE flag	41
7.8.3.3	FAX-TELE-COM-DB	41
7.8.3.4	Resolution	41
7.8.3.5	FAX-POLL-DB	41
7.8.4	<i>Kodak-Option</i>	42
7.8.5	<i>Symadyn-Option</i>	42
7.8.6	<i>Menu item digital I/O (only with TELE-DIO-Module)</i>	43
7.8.6.1	Local inputs	43
7.8.6.2	Local outputs	44
7.8.6.3	Remote Input	45
7.8.6.4	Remote Output	45
7.8.6.5	Offline Output	45
7.8.6.6	Mode	45
7.8.7	<i>PCS-Option</i>	45
7.9	MENU ITEM SPECIAL	46
7.9.1	<i>To PG/PLC interface?</i>	46
7.9.2	<i>Break Tx-line</i>	46
7.9.3	<i>S7-200 on</i>	46
7.9.4	<i>IBX-Test (Only for PLC-S5 KOR/MUX)</i>	46
7.9.5	<i>Menu item Direct mode</i>	47
7.9.5.1	Source-Com	47
7.9.5.2	Dest.-Com	47
7.9.5.3	Direct Mode ON	48
7.9.5.4	Direct Mode On with HW	48
7.9.6	<i>Tele-Switch</i>	48
7.9.7	<i>PG-coupling</i>	49
7.10	LANGUAGE	49
7.11	INFORMATION	49
7.11.1	<i>Version</i>	49
7.11.2	<i>Remoteverision</i>	49

Operating instructions Tele-Network

7.11.3	Remotename.....	50
7.11.4	Copyright.....	50
8	SPECIAL FUNCTIONS OF THE TELE-NETWORK DEVICES	51
8.1	RECALL MODE.....	51
8.1.1	PLC-TELE.....	51
8.1.2	PG-TELE.....	51
8.1.3	Use recall-mode.....	52
8.2	OPERATION OF SEVERAL PLCS AT ONE TELE-NETWORK DEVICE.....	52
8.2.1	Operation with Siemens MUX-757.....	52
8.2.2	Operation with intelligent Bus-terminal IBX.....	52
8.3	OPERATION OF SEVERAL PLCS VIA THE H1-BUS.....	53
8.4	OPERATION OF SEVERAL PLCS VIA THE L1-BUS.....	53
8.5	OPERATION OF SEVERAL PLCS VIA THE L2-BUS.....	54
8.6	COUPLING OF SEVERAL PLCS VIA THE TELEPHONE LINE: SPS-OPTION.....	55
8.6.1	Set up a communication word between the plc and the TELE-Network device.....	55
8.6.2	Setup of the SPS-TELE flag.....	56
8.6.3	Setup of the communication data module at the SPS-TELE.....	57
8.6.4	Send data with the SPS-TELE.....	58
8.7	SEND DATA FROM THE PLC TO A FAX: FAX-OPTION.....	59
8.7.1	Set-up of a communication word between plc and TELE-Network device.....	59
8.7.2	Set up of a communication data module at the FAX-TELE.....	60
8.7.3	Sending a fax with the FAX-TELE-option.....	61
8.8	SEND DATA FROM THE PLC TO A MODEM SUBSCRIBER: ASCII-OPTION.....	62
8.8.1	Setup of the communication word between plc and TELE-Network.....	62
8.8.2	Setup of the ASCII-TELE-flag.....	63
8.8.3	Setup of the communication data module at the ASCII-TELE.....	64
8.8.4	Send data with the ASCII-option.....	64
8.9	MESSAGES OF THE PLC SENDING TO A PAGER.....	66
8.9.1	Setup of the communication word between plc and TELE-Network.....	67
8.9.2	Setup of the communication data module for S5 for PAGER.....	68
8.9.3	Setup of the communication data module for S7 for PAGER.....	69
8.9.4	Sending a message to a PAGER.....	69
8.10	COMMUNICATION WITH A MAILBOX (MODEM).....	70
8.11	COMMUNICATION WITH AN S7-300 AND AN S7-400 PLC: S7-OPTION.....	71
9	POSSIBILITY OF PROGRAMMING OF SIEMENS OPS.....	72
9.1	PROGRAMMING WITH PROTOOL LITE:.....	72
9.2	PROGRAMMING WITH PROTOOL:.....	72
10	CONTROLLING OF THE TELE-NETWORK-DEVICES WITH TAPI-INTERFACE.....	73
11	COMMUNICATION WITH TELE-SWITCH	74
11.1	FUNCTION OF THE TELE-SWITCH AS MUX (COMPATIBLE WITH SIEMENS-MUX 757).....	74
11.2	FUNCTION AS TELE-SWITCH.....	74
11.3	TECHNICAL DATA OF THE TELE-SWITCH.....	75
12	ASSIGNMENT OF THE NORMAL TELEPHONE CORD	76
12.1	SIDE OF THE MODEM.....	76
12.2	TAE-PLUG.....	76
13	ASSIGNMENT OF THE CONNECTION PINS OF THE TAE-SOCKET.....	77
14	CONNECTION OF THE TELEPHONE LEAD.....	77
15	TECHNICAL DATA OF THE TELE-NETWORK DEVICES.....	78
16	PLC-TYPES	79

17	PECULIARITIES OF SPECIAL PLC-TYPES	81
17.1	ALLEN BRADLEY-TELE	81
17.1.1	<i>The connecting cable</i>	82
17.1.2	<i>Examples for the connection of Allen-Bradley-PLC's</i>	82
17.2	KLÖCKNER MOELLER-TELE	83
17.2.1	<i>Plc-Types</i>	83
17.2.2	<i>Timeout of the Communication</i>	83
17.2.3	<i>Connecting cable to the PC:</i>	84
17.3	MITSUBISHI-TELE.....	84
17.3.1	<i>PLC-Types</i>	84
17.3.2	<i>Interface-Cable to the PC</i>	84
17.3.3	<i>Interface-Cable to the PLC</i>	84
17.3.4	<i>Medoc-Software</i>	84
17.4	JETTER-PLC	85
17.4.1	<i>Interface-Cable to the PC</i>	85
17.4.2	<i>Interface-Cable to the PLC</i>	85
18	PIN ASSIGNMENT OF THE TELE-NETWORK DEVICES	86
18.1	PIN ASSIGNMENT TELE-LINK	86
18.1.1	<i>Pin assignment for the PG-socket (TTY):</i>	86
18.1.2	<i>PIN assignment for the PLC-socket (TTY):</i>	86
18.2	PIN ASSIGNMENT TELE-BOOK.....	87
18.2.1	<i>PIN assignment for the PG-socket (TTY):</i>	87
18.2.2	<i>PIN assignment for the PG-socket (V24):</i>	87
18.2.3	<i>PIN assignment for the PLC-socket (V24):</i>	87
18.3	PIN ASSIGNMENT FOR TELE-PROFESSIONAL	88
18.3.1	<i>Pin assignment the PG-socket (TTY):</i>	88
18.3.2	<i>PIN assignment for the PG-socket (V24):</i>	88
18.3.3	<i>PIN assignment for the PLC-socket (TTY):</i>	89
18.3.4	<i>PIN assignment for the PLC-socket (V24):</i>	89
18.3.5	<i>PIN assignment for the connection of the printer (function optional):</i>	90
19	WORLD-WIDE USE OF THE TELE-LINK (MODEM CONNECTION)	91
20	TROUBLESHOOTING	94
21	ADDITIONAL SOFTWARE: TELE-MANAGER <small>LITE</small>.....	95
21.1	THE WAY TO WORK WITH THE SOFTWARE	95
21.1.1	<i>Configuration of the Port</i>	95
21.1.2	<i>Activating of the Tele-Manager lite in the Tele-Network-Device</i>	95
21.1.3	<i>Read or Write the firmware</i>	96
21.2	DESCRIPTION OF THE MENU BAR.....	97
21.3	CONFIGURATION	98
21.4	SUBSCRIBER.....	99
21.5	EXIT THE PROGRAMMING OF TELE-LINK.....	99

1 Preface

The TELE-Network devices were developed especially for the remote maintenance of plc-systems. This means that the device is geared completely to industrial necessity, from its mechanical configuration to its handling. The compatibility of the TELE-Network devices with the original programming tools of the respective plc-manufacturer has highest priority. Their connection mechanics, pin seizure, and electrical data meet the specifications of the respective controls. Thus, users can work directly and without special adapters with the normal cables of the devices they want to connect, like for example PGs and control units. All TELE-Network devices have the same hardware structure. The complete electronics are integrated in a metal casing.

2 US-FCC-Rules for devices with us-modem

This equipment complies with Part 68 of the FCC Rules. On the **soldering side** of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

This equipment uses **RJ12** plugs.

An FCC compliant telephone cord and modular plug are provided with this equipment. This equipment is designed to be connected to the telephone network or promises wiring using a compatible modular jack which is part 68 compliant. See installation instructions for details.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, please contact **your dealer of this tele-network device, the telephone number is known by yourself**, for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

2.1 Special information on TELE-LINK

The TELE-LINK devices can be operated by the integrated 14400 V42-BIS HIGH SPEED-modem directly at the telephone connection of the Deutsche Telekom and at each private branch exchange. Special modems are available for fixed line operations.

The device can be fastened directly to the switchboard. Fixing straps for the Hut- and C-contact rail are optionally available.

2.2 Special information on TELE-BOOK

The TELE-BOOK devices can be operated by a PCMCIA-modem directly at the telephone connection of the Deutsche Telekom and at each private branch exchange. Moreover, these devices are highly suited to use in combination with a portable phone because of the variable PCMCIA-interface. Simply exchange the PCMCIA-modem with a PCMCIA-GSM-card which is specifically made for portable phones, connect it to a portable phone, and you can have world-wide connections.

2.3 Special Information on TELE-PROFessional

The TELE-PROFessional devices can be operated by the integrated 33K6 V42-BIS HIGH-SPEED-modem directly at the telephone connection of the Deutsche Telekom and at each private branch exchange. Special modems are available for fixed line operations. As an additional option, this device can also be operated by a software-option with a PCMCIA-modem. In this way, it can be installed world-wide with a portable phone.

The device can be fastened directly to the switchboard. Fixing straps for the Hut- and C-contact rail are optionally available.

Caution:

The operation of these remote maintenance units is only allowed if a supervising person is present who can intervene in the installation at any time. Please do not intervene in running programmes without visual communication or control.

Before installing the TELE-LINK-Network devices, please connect them by all means with earthing PE at the casing or at the screw terminal!

Please read the user's manual closely before installing the device. There is no responsibility taken for damages due to incorrect connection or handling.

3 Features

- compatible with all SIMATIC-S5-PLC's
- compatible with SIMATIC-S7-300/400-plc (connection of PLC-TELE by S7 via MPI/PPI-cable or pc-adapter)
- compatible with SIMATIC-S7-200-plc (connection of PLC-TELE by S7 via MPI/PPI-cable or ppi-adapter)
- ONLINE with the plc at the customer in a few seconds
- suitable for industrial use and in agreement with CE
- integrated HIGH-SPEED-modem (TELE-LINK and TELE-PROFessional)
- PCMCIA-slide-in unit for PCMCIA-plug-in cards (TELE-BOOK, TELE-PROFessional optionally)
- can be operated by all original and compatible programming devices
- second PG-interface for parallel operation (integrated Multiplexer)
(Only for S5 devives!)
- supports the operation at the H1, L1, and L2 with reference to bus-dialling
- supports the operation KOR/MUX of Siemens, as well as PG-BUS
- operation software is saved in the flash memory which makes the updating of the software easier
- absolutely simple to set parameter values
- module which checks all the device functions and the voltage supply
- the electronics to the telephone network, to the external voltage supply, to the plc and to the programming device are dc-insulated.
- compact device in a metal casing: 280x170x55 mm (TELE-LINK and TELE-PROFessional)
233x162x39 mm (TELE-BOOK)
- 24V DC supply (TELE-BOOK can also be used in a car since it has 12-36V/DC)

Operating instructions Tele-Network

- easy mounting into the switchboard (TELE-LINK and TELE-PROFessional)
- tough sheet-steel casing with a flange
- power supply 24V/DC or 230V/DC (24V plug-in power supply 350mA)
- circuit arrangement that fits the EMV
- easy handling because of menu drive and LCD-display in the uncoded text
- easy and fast configuration because of the menu item “first configuration“
- in the PG, a software driver is not necessary; the complete handling is taken over by the TELE-LINK (after dialing the target system, the plc is “on your desk“
- only one device for several controls:

Siemens S5 &S7
AEG
Allen Bradley
Bosch
Mitsubishi
Klöckner Moeller
GE Fanuc
Selectron
Tele-Mechanique Premium TSX57

- safe data transmission because of a multiply protected data protocol, e.g. modules are only transmitted to the plc after they have been checked for their correctness
- all PG-functions can be carried out via the telephone line or the portable phone (TELE-BOOK)

second interface; select either Multiplex operation for the operation of a 2nd PG / PC/ control device/ ...or as a connection for a 2nd plc / CP for L1 / L2 / H1/ ... from the PG-TELE, PLC 1 or PLC 2 can be switched **only for S5-devices**

- PG-coupling possible
- world-wide use possible, connection to GSM-net optional
- high data protection because of multistage password levels
- optimisation of telephone costs because of the return call function
- telephone register for 197 phone numbers is integrated into the TELE-device; this guarantees quick and easy calling of the desired target system
- compatible world-wide to all TELE-network devices

Operating instructions Tele-Network

- software updates and options transmittable by the telephone line
- update and hotline service are for free
- additional options:

fault report via the fax

data transmission to higher-ranking plc

data transmission to pc-server

data transmission Scall, Quix, SMS-message (standard in Siemens Network-devices)

printer connection

L2-BUS-interface

configuration of control devices (e.g. Siemens-OPs /PCS/ ...) (OP's standard for the Siemens Network-Devices)

CAN-BUS-interface

Interbus-S-interface

image transmission (digital camera)

4 Installation

4.1 Requirements

The following requirements are demanded for the system environment of the TELE-Network devices:

- 230V line voltage which supplies the power pack of the plug (provided) or
- 24V DC with at least 350mA load current
- TAE-mains socket of the Telekom, (N-coded), normally 3pin socket:
NFN <=> N = Extension device (modem, fax), F = Telephone, N = Extension device

4.2 Pin Assignment of the TELE-Network devices

4.2.1 TELE-LINK

On top of the device, there are five keys which make the communication between user and TELE-LINK possible.

At the two long sides of the TELE-LINK device, there are the connection boxes for the installation of the device. At one side, there is the connection box for the telephone cable (provided). At the other side, there are the connection boxes for the programming device, Siemens plc, voltage supply, and the optionally available digital in- and output.

4.2.1.1 Telephone Connection

When connecting the telephone, the cable with the black (TAE-)plug is plugged in the telephone socket (N-contact). Please note that with some plugs a locking device has to be removed with a screwdriver in order to extract the plug from the TAE-socket. The other side, a so-called western-plug, has to be plugged, with the ejector up, in the small hole of the modem. You will hear how the locking device latches. In order to extract the western-plug, simply press down the locking lug and extract the plug.

Just be shur, for the modem with us-version, you have two plug for the telefon lead. You just have to connect the lead to the left plug, when you look straight on the backside of the telenetwork device. On the other plug, you can connect a telephone.

Operating instructions Tele-Network

4.2.1.2 PG-Connection

If the device is designed as PG-TELE, the connection or programming cable, which is normally designed for the Siemens-control, is now plugged in the 15pin D-SUB-socket. The 15pin D-SUB-plug right next to it is not used in this setting.

4.2.1.3 PLC-Connection

If the device is defined as AG-TELE, the optionally available connection cable is plugged onto the 15pin D-SUB-plug and connected to the programming interface of the Siemens-control. In contrast to the PG-TELE, you can now occupy the unused 15pin D-SUB-socket with a programming system. This means that the control can be accessed by phone from outside and the co-worker at the face can **simultaneously** have access to the control with his programming tools.

4.2.1.4 Voltage Connection

For the voltage supply of the TELE-Network device, either the provided plug-in power supply or an existing voltage supply of 24V DC with at least 350mA current is connected to the green 2pin plug. The voltage poles of the plug-in power supply are marked with coloured wire-end sleeves.

The PLUS-pole is red, the MINUS-pole blue. When using the TELE-LINK, connect the PLUS-pole to the left screw terminal and the MINUS-pole to the right screw terminal.

4.2.2 TELE BOOK

The connection boxes for the installation are at the back of the TELE-BOOK device. There is the PCMCIA-slot for the connection of the PCMCIA-modem or the PCMCIA-GSM-card, right next to it is the connector for the PLC-connection; moreover, there are two connection boxes for the PG-connection (9pin V24, 15pin TTY) and the voltage supply.

Caution:

Never occupy more than one of these two PG-connection boxes!

At the front, there is the ON/OFF switch that you have to press for one second in order to change the operating condition. Next to it is the display and the five function keys for the device's handling.

4.2.2.1 PCMCIA-Modem-Connection

When plugging in or ejecting the PCMCIA-plug-in card, please note that the respective card can only be exchanged if the device is turned off.

Eject the card: By pressing the black ejection lever, the card is pushed off (ca. 1cm.). Now you can pull it off completely without any risk.

Plug in the card: Push the card cautiously face up into the PCMCIA-slot. Don't use force!
In case the card does not go in further than 6 cm, you have inserted it the wrong way and have to turn it. The card is only completely plugged in if the ejection lever shows again completely and the card locks in position.
(You will hear it click.)

Caution:

We don't take any responsibility for damages due to incorrect handling.

4.2.2.2 PG-Connection

If the device is defined as PG-TELE, the connection or programming cable which is normally designed for the Siemens-control, is now either plugged in the 15pin D-SUB-socket or the 9pin D-SUB-socket right next to it is connected to the serial interface of the PC with a 9pin 1to1 cable.

The 9pin D-SUB-socket right next to it is not used in this adjustment.

4.2.2.3 PLC-Connection

If the device is defined as AG-TELE, the optionally available connection cable (interface cable V24↔TTY) is plugged onto the 9pin D-SUB-socket and is then connected to the programming interface of the Siemens-control. In contrast to PG-TELE, a programming system can now be connected either to the unused 15pin D-SUB-socket or to the unused 9pin D-SUB-socket. This means that the control can be accessed by phone from outside and that the co-worker at the face can simultaneously have access to the control with his programming tools.

4.2.2.4 Voltage Connection

For the voltage supply of the TELE-BOOK-device, either the provided plug-in power supply or the existing power supply of 24V/DC with at least 350mA current is connected to the green 3pin plug. The voltage poles of the plug-in power supply are marked with coloured wire-end sleeves. The PLUS-pole is red, the MINUS-pole blue. When using the TELE-BOOK, connect the PLUS-pole to the left screw terminal and the MINUS-pole to the right (external) screw terminal. The connection box in the middle is for earthing and has to be connected to PE.

Operating instructions Tele-Network

4.2.3 TELE-PROFessional

On top of the device, there is a keyboard with five keys and two LEDs. The keyboard makes the communication between user and TELE-PROFessional possible.

At the two long sides of the TELE-PROFessional device, there are the connection boxes for the installation of the device.

At one side, there is the connection box for the telephone cable (provided). At the other side, there are the connection boxes for the programming device, Siemens plc, voltage supply, and the optionally available printer interface..

4.2.3.1 Telephone Connection

When connecting the telephone, the cable with the black (TAE-)plug is plugged in the telephone socket (N-contact). Please note that with some plugs a locking device has to be removed with a screwdriver in order to extract the plug from the TAE-socket. The other side, a so-called western-plug, has to be plugged, with the ejector up, in the small hole of the modem. You will hear how the locking device latches. In order to extract the western-plug, simply press down the locking lug and extract the plug.

Please note: Modems used in the US have two connection boxes for the telephone cable. Plug the cable in the left socket (if you lock at it from behind). The right socket is fed through and is suited for connection of a telephone at the same telephone line.

4.2.3.2 PG-Connection

If the device is defined as PG-TELE, the connection or programming cable which is normally designed for the Siemens-control, is now either plugged in the 15pin D-SUB-socket or 9pin D-SUB-socket right next to it is connected to the serial interface of the PC with a 9pin 1to1 cable.

The 9pin and 15pin D-SUB-sockets right next to it are not used in this setting.

4.2.3.3 PLC-Connection

If the device is defined as AG-TELE, either the optionally available connection cable (interface cable V24↔TTY) is plugged onto the 9pin D-SUB-socket or the optionally available connection cable is plugged onto the 15pin D-SUB-socket and is then connected to the programming interface of the Siemens-control. In contrast to PG-TELE, a programming system can now be connected either to the unused 15pin D-SUB-socket or to the unused 9pin D-SUB-socket. This means that the control can be accessed by phone from outside and that the co-worker at the face can simultaneously have access to the control with his programming tools.

4.2.3.4 Voltage Connection

For the voltage supply of the TELE-BOOK-device, either the provided plug-in power supply or the existing power supply of 24V/DC with at least 350mA current is connected to the green

Operating instructions Tele-Network

2pin plug. The voltage poles of the plug-in power supply are marked with coloured wire-end sleeves. The PLUS-pole is red, the MINUS-pole blue. When using the TELE-PROFessional, connect the PLUS-pole to the left screw terminal and the MINUS-pole to the right (external) screw terminal.

5 Handling

The TELE-Network-devices are operated by five keys. The menu drive is shown on the built-in display in the uncoded text. There are the following key functions:

Cursor-left	(←)
Cursor-right	(→)
Cursor-up	(↑)
Cursor-down	(↓)
ENTER key	(ENTER).

In order to get from menu level to menu level, use the cursor-up or cursor-down keys. You can select a certain menu item by pressing ENTER or by using the cursor-right key. You are in a submenu now and can select a subitem in the same way (cursor-up/down) and then press ENTER or use the cursor-right key.

In case you have confirmed a menu item you do not want you can cancel this selection by pressing the cursor-left key. In case there have already been any modifications these are not saved then.

If you want to save a modification, just press ENTER.

Caution:

If the tele-network device doesn't recognize the keyboard input, so this may have a lot of causes.

- **At first, the communication between both modems is so bad, because the telefon line is so bad, so the modems had to repeat more and more the same blocks of data, so there is not so much time to recognize the keyboard input. But when there is no problem with the telefon line more, the input of the keyboard is OK.**
- **You have a connection with a tele network device, which modem doesn't work correctly. So your modem tries to send the data blocks to another modem, but there is no response, and so it tries it the whole time. When you have this problem, your device has the same response as the first case. But here, you can do it easier. Disconnect the telefon lead of the device, so the connection is broken. When you have a lot of time, you can press the keycodes and wait a long time, you can see under info - remote version, and there you see nothing, so you know, that the device of the other side doesn't work correctly.**
- **You are at the plc-tele, and on the other side there is a force block or force variable, so you can't press any key, and the device does the action you want, because, we have for this cases broken the keyboard connection.**

6 First Config

After mounting the device into the switchboard, or placing on the table, at first you have to connect the ground connector on the right side of the device with the ground pin of the switchboard. Then you connect of the backside of the device the telefon lead into the correct connector (see chapter 14) and then connect the power 24V with the green connector on the front side. After the device is booting, you can read in the display „not connected“, so you can begin with the first configuration.

In order to configure the TELE-Network devices quickly and safely, there is a special menu item in the menu tree (see chapter 7). This menu item is called “First config“ and its menu structure is shown in the following:

```

First Config:
Language
    German
    English

Device type
    PLC-S5-TELE
    PG-TELE
    PLC-S5 KOR/MUX
    PLC-S7 300/400
    PLC-S7 200 9K6
    PLC-S7 200 19K2
    PLC-S5-F-Type

Dial mode
    Ton
    Impulse

Extension
    Yes
    No

Outline Code
    0,1,2,3,4,5,6,7,8,9,!,“,/,>,#,X,W,*

Count of rings
    0,1,2,3,4,5

busy identify
    Yes
    No

PCMCIA-Modem type                (Only in TELE-BOOK)
    
```

With the cursor-up or cursor-down keys, you can go through the menu tree. Press ENTER in order to select a menu item. Now use the cursor-up or cursor-down key again to select your next adjustment. Press ENTER to save it.

Operating instructions Tele-Network

Menu item LANGUAGE:

- German menu drive in German
- English menu drive in English

Menu item DEVICE TYPE:

- PLC-S5-TELE The device is next to the plc-control and is connected to it
- PG-TELE The device is next to the programming device and is connected to it
- PLC-S5 KOR/MUX The device is not connected directly to the plc but via a SIEMENS Multiplexer (PG-BUS-dialling), via a coordinator (e.g. 923 C) or via the IBX-Bus (Bus system of PI with PG-BUS-dialling); (special type of PLC-TELE).
Caution:
The built-in Multiplexer is not active in this operation mode!
- PLC-S7 300/400 This device is connected to a S7-300/400 plc
- PLC-S7 200 9K6 This device is connected to a S7-200 plc and communicates with 9600 baud
- PLC-S7 200 19K2 This device is connected to a S7-200 plc and communicates with 19200 baud
- PLC-S5-F-Type This device is connected to S5 plc, especially a F-Type

Menuitem DIAL MODE:

- Tone The modem dials with the multi-frequency-method MFM
- Pulse The modem dials with the pulse method

Menuitem EXTENSION MODE:

- NO The device is either connected directly to the line, i.e. you do not need a prefix number in order to get a line or the device is within a private branch exchange and should call a partner within this system.
- YES The device is not connected directly to the line. You then need either a prefix number or a certain key combination to get to the line.

Menuitem OUTLINE CODE:

With these possible figures you can config the device to get a telefon line:

0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,X,W,*

Operating instructions Tele-Network

All handy written down above functioning with the pcmcia-card serie 10. The original number of siemens for this card is:

Siemens E10 S10 activ 511 PC-Card

And the cable between handy and pcmcia-card is::

0030 LIFAR L36880-N1201-A11 WE Nr. 78783

Don't use the cable for connecting a PC (PC Com1 oder Com2 [RS232] to the handy)!!

After inputting all these adjustments, the TELE-Network device is ready for use. If you go through the menu another time, you can check the parameters and change them if necessary.

So you can also use the newer handys, like for e.g. siemens S25, C35, or nokia (6150, 5110). For the use of this handys, you need to plug in a serial PCMCIA-card, that your tele-book gets a com-port. Now you can use the cable for this handys, that you use normally for the connect to the pc. After this, you select the siemens GSM or the nokia dtp-2 card in this menu item.

Caution:

The operation of these remote maintenance units is only allowed if a supervising person is present who can intervene in the installation at any time. Please do not intervene in running programmes without visual communication or control.

Before installing the TELE-LINK-Network devices, please connect them by all means with earthing PE at the casing or at the screw terminal!

Please read the user's manual closely before installing the device. There is no responsibility taken for damage due to incorrect connection or handling.

7 Menu Tree

Messages

Hang Up

Select subscriber

Selection of one of the possible 197 subscriber entries and the dial to

Edit subscriber

The edit of the 197 subscriber

Number of the entry	Name max. 9 char	Baudrate	12-144
			R12-R144
			M12-M144

Number of the subscriber 16 chars, with "→" possible, the next 16 chars append to this entry

RRV-number (only with recall): intern. telefon number of the device, that want this recall

Online action

Hang Up

Lift

Data Mode

Voice Mode

Init Modem

Login remote

Transmit Firmware

Fetch Firmware

Remote config ON

(Only PG-TELE)

Remote config OFF

(Only PLC-TELE)

First Config

Language ...

Device type ...

Telephone ...

Configuration

Device type

PLC-S5-TELE

PG-TELE

PLC-S5 KOR/MUX

PLC-S7 300/400

PLC-S7 200 9K6

PLC-S7 200 19K2

PLC-S5-F-Type

Device name

Max. 9 char

PG-MUX mode

(only with PLC-TELE)

PG-MUX

PG-PLC

PG-MUX -c

Operating instructions Tele-Network

Telephone

Dial mode

Ton

Impulse

Extension

Yes

No

Outline Code

0,1,2,3,4,5,6,7,8,9,!,",",/,>,#,X,W,*

Count of rings

0,1,2,3,4,5

busy identify

Yes

No

PCMCIA-Modem type

(Only in TELE-BOOK)

Connection

Speaker

On

Off

Hangup hearing

0 – 10 sec.

Max. connect time

0 – 60 min.

Max. Idletime

0 – 60 min.

Baud rate manual

12

24

48

96

144

Recall mode

(Only with PLC-TELE)

Yes

No

Recall number

(Only with PG-TELE)

Telefon number, 16 chars max

Acces code

PIN device local

6 chars Pin

PIN plc local

6 chars Pin

PIN device remote

6 chars Pin

PIN plc local

6 chars Pin

S7-Config

(Only with PLC-TELE)

Local MPI-Adress

(mpi-adress for the device, if it is on the mpi bus)

Max. MPI-Adress

S7-MPI-Adress

(is only valid, if there is no Poll-list active, for Pager, Fax- and SPS-TELE)

Poll-list

(if there any entries exist, the S7-MPI-Adress is not valid)

Options

Pager-Tele

Pager operation

Yes

No

Pager flag

Only even flag words, 0 to 254

Pager-Com-DB

DB1 to DB 255, DW 0 to 998

SPS/ASCII-TELE

Modem control

No

With Flag word

With dig. IO

Modem flag

Only even flag words, 0 to 254

SPS-TELE operation

Yes

No

SPS-TELE flag

Only even flag words, 0 to 254

SPS-TELE-Com-DB

DB1 to 255, DW 0 to 998

ASCII operation

Yes

No

ASCII Flag

Only even flag words, 0 to 254

ASCII-COM-DB

DB1 to 255, DW 0 to 998

FAX-TELE

FAX-TELE-operation

Yes

No

FAX-TELE flag

Only even flag words, 0 to 254

FAX-TELE-COM-DB

DB1 to 255, DW 0 to 998

Resolution

Heavy

Fine

FAX-POLL-DB

DB1 to 255, DW 0 to 998

Kodak-Option

Symadyn-Option

Digital-IO

Local input

Local output

Remote input

Remote output

Preset output

Mode

Manual

Mirror

Dialing

PCS-Option

Operating instructions Tele-Network

Special	To PG/PLC interface?		(Only with PG-TELE)
	Connect PG with	PLC	(PLC-socket of the PLC-TELE)
	Connect PG with	PG	(PG-socket of the PLC-TELE)
	Break TX-Line		(Only with PG-TELE)
	0 to 30 sec.		
	S7-200 on		(Only with PG-TELE)
	IBX-Test		(Only with PLC-S5 KOR/MUX-TELE)
	Direct mode		(Only with PG-TELE)
	Source-COM		
	Dest.-COM		
	ON		
	ON with HW		
	Tele-Switch		(Only with PG-TELE)
	PG-Coupling		
	Pro-Tool 7/17		(Only with PG-TELE)
Language	German		
	English		
Info	Version		
	Remoteversion		
	Remotename		
	Copyright		

7.1 Menu item Messages

In this menu item which occurs automatically on the display after starting the TELE-Network device, the user receives important data about the condition of his/her device. It is displayed whether the TELE-Network has a direct connection to the control.

- AG ONLINE
- AG OFFLINE

Moreover, after the first dialling, the users is informed whether there is a connection or not:

- connected
- not connected

7.2 Menu item Hang Up

With this menu item, the modem disconnects an existing connection, i.e. it hangs up.

7.3 Menu item Select Subscriber

Select one of the maximally 197 saved entries by using the cursor-up/down key. Then press ENTER for starting the actual dialling.

You can interrupt the dialling process by using the cursor-left key. This might become necessary if you accidentally dialled the wrong number.

7.4 Menu item Edit subscriber

This function enables you to input up to 197 names and telephone numbers in a telephone directory and save them there. You have the storage positions 1 to 197 at your disposal.

If you are in this menu item, you can select with the cursor up/down keys your desired storage position (1 to 197). Press ENTER and the cursor moves to the input position:

Number of the entry	Subscriber name (max. 9 characters)	Max. baudrate, to begin the connection
Telefon number of the subscriber (max. 16 character, or with "→" select next entry, so you can use both entries and you have max. 31 characters)		

Schema of LCD-display for menu item Edit Subscriber

Operating instructions Tele-Network

Possible baud rates:

12 - 144	(normal connection between two devices)
R12 – R144	(Connection with Recall, see chap. 8.1)
M12 – M144	(call to a mailbox, no tele-network device, see chap. 8.10)

If you have to edit a telephone number with more than 16 characters, you can do it with the following way:

You edit, for example subscriber 8, edit the telephone number with 15 characters, then the special char “→”, and edit in subscriber 9 the rest of this telephone number.

You can select letters, numbers or other adjustments by using the cursor-up/down keys and the cursor position (if possible) by using the cursor-right/left keys.

If you have activated the return call function (Rxx Baud), you will then have the possibility to input the RC-PNr. (return call-prefix number).

If you have activated the modem call function, you had to configure the connected PC by the TELE-LINK at the TTY-PG-Connector and by the TELE-BOOK and TELE-PROFessional at the V24-Connector with following options:

19200 Baud, 8 Data-Bit, 1 Stop-Bit, No Parity	and XON/XOFF at TELE-LINK
	and RTS/CTS at TELE-BOOK
	and RTS/CTS at TELE-PROFessional

7.5 Menu item Online action

7.5.1 Hang up

With this menu item, the modem disconnects an existing connection, i.e. it hangs up.

7.5.2 Lift

With this menu item, the modem receives incoming calls. This is only the case if the adjustment “number of signals before picking up” (which is explained further down) is turned to zero and if the modem does not pick up independently.

7.5.3 Data Mode

In case there is only one telephone line that should be used by a TELE-Network device and for the telephone communication with your co-worker, you can use this telephone line with this menu item for both ends.

The co-worker recognises after picking up a parallelly working telephone the signal of a calling TELE-Network device and can then connect the TELE-Network to the line with this

menu item. The device disconnects the existing connection to the telephone, takes over the line and is then in data mode with the calling device. In case of speech mode, this menu item can be used as well in order to connect TELE-Network devices to the line. In this case, however, this function has to be carried out at both devices.

Caution:

Only hang up the phone after the TELE-Network has displayed CONNECT. Do not hang up the phone if there should be a speech mode after the data mode.

Analogue: see speech mode

7.5.4 Voice mode

This is the contrasting command to the command "DATA MODE". It disconnects an existing data connection and the speech connection is released again.

Caution:

Do not hang up the phone while the data mode is in process.

Analogue: see data mode

7.5.5 Init Modem

With this command, modified initialisations are transferred to the modem.

7.5.6 Login remote

With this action you can repeat the password input a second time, after you had logged in incorrectly.

7.5.7 Transmit programme

This command is used to transmit newer software versions to TELE-Network devices with older versions. Your own programme is loaded to the other TELE-Network device via the telephone line to the programme memory.

In this way, all TELE-Network devices can be updated with the most recent software release.

Caution:

Programmes can only be transmitted between device types that are configured differently. (PLC-TELE ⇔ PG-TELE or PG-TELE ⇔ PLC-TELE): If the devices are of the same type (PLC-TELE ⇔ PLC-TELE or PG-TELE ⇔ PG-TELE), there will be the error report "partner does not recognise option".

The TELE-Network device that has received the programme, programmes itself after the transmission. While the programming is in process, do not disconnect the device from the voltage supply since then the complete programme becomes invalid. If the programme is invalid, the device reports CRC-ERROR. If this message appears, the programme has to be re-started with a PC.

After the programming, the device executes a warm start and after that it reports with the new software release yet with the same configuration.

7.5.8 Fetch Programme

This is the contrasting command to the command “Transmit Programme“. More recent software releases are loaded down from the TELE-Network devices. Here, the programme of another TELE-Network device is loaded to your own programme memory via the telephone line.

In this way, all TELE-Network devices are updated to the most recent software release.

Caution:

Programmes can only be transmitted between device types that are configured differently. (PLC-TELE↔PG-TELE or PG-TELE↔PLC-TELE): If the devices are of the same type (PLC-TELE↔PLC-TELE or PG-TELE↔PG-TELE), there will be the error report “partner does not recognise option“.

The TELE-Network device that has received the programme, programmes itself after the transmission. While the programming is in process, do not disconnect the device from the voltage supply since then the complete programme becomes invalid. If the programme is invalid, the device reports CRC-ERROR. If this message appears, the programme has to be re-started with a PC.

After the programming, the device executes a warm start and after that it reports with the new software release yet with the same configuration.

7.5.9 Remote Config ON

With item you can activate the configuration of the remote device. If you had activated this item, and you change any parameter in the konfiguration, you change it in the remote device and not in this device you are in front of. This item is so long active, until you deactivate this item.

Be shure, that you switch off the remote configuration after ending of the edit, because when you meen, you are ready with the configuration, and you want to edit your own configuration, you overwrite the remote configuration, and so ist possible, you can´t get a connect after this operation. Before you start the remote configuration, yuo should have the same firmware in both devices.

7.6 Menu item First Config

With this item it is possible, to configure the important parameters, so that your device is as fast as soon ready for installation.

With the cursor-up or cursor-down keys, you can go through the menu tree. Press ENTER in order to select a menu item. Now use the cursor-up or cursor-down key again to select your next adjustment. Press ENTER to save it.

Menu item LANGUAGE:

- German menu drive in German
- English menu drive in English

Menu item DEVICE TYPE:

- PG-TELE The device is next to the programming device and is connected to it
- PLC-TELE-S5 The device is next to the plc-control and is connected to it
- PLC-S5 KOR/MUX The device is not connected directly to the plc but via a SIEMENS Multiplexer (PG-BUS-dialling), via a coordinator (e.g. 923 C) or via THE IBX-Bus (Bus system of PI with PG-BUS-dialling); (special type of PLC-TELE).
Caution:
The built-in Multiplexer is not active in this operation mode!
- PLC-S7 300/400 This device is connected to a S7-300/400 plc
- PLC-S7 200 9K6 This device is connected to a S7-200 plc and communicates with 9600 baud
- PLC-S7 200 19K2 This device is connected to a S7-200 plc and communicates with 19200 baud
- PLC-S5-F-Type This device is connected to a S7-plc, but this plc is a F-type plc

Menuitem DIAL MODE:

- Tone The modem dials with the multi-frequency-method MFM
- Pulse The modem dials with the pulse method

Menuitem EXTENSION MODE:

- NO The device is either connected directly to the line, i.e. you do not need a prefix number in order to get a line or the device is within a private branch exchange and should call a partner within this system.
- YES The device is not connected directly to the line. You then need either a prefix number or a certain key combination to get to the line.

Menuitem OUTLINE CODE:

With these possible figures you can config the device to get a telefon line:

0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,W,* (Chap. 7.7.4.3 on page 33)

Menuitem RINGS BEFORE LIFTING:

- = 0 **CAUTION:**
With this adjustment, the modem does not pick up independently. With the menu item “pick up“ you have to make the modem pick up manually.

Operating instructions Tele-Network

- = 1-5 Modem picks up after the adjusted number of rings.

Menuitem Busy identify:

- Yes: The device proofes befor dialing, if the telefon line is free or Busy
- No: The device dials without proofing the telefon line.
This is the better config, because some telefon devices gives you a signal after taking the line, that seems to be a busy signal, so the device doesn't dial.

Menuitem PCMCIA-Modem type:

Wih this menu item is plugged in PCMCIA-card in the TELE-BOOK configured, so the TELE-BOOK can inatialis the card and take a secure telefon connection.

Following PCMCIA-Cards are in the moment possible:

Card-name	Config-name	Type
Elsa MicroLink 28800	Elsa-MicroLink	TAE-Modem
Megahertz	Megahertz	TAE-Modem
PSION DACOM Gold Card Global 33K6 and 56K with GSM	GoldCard	TAE-Modem
Ericson GH688	Elsa-MicroLink	GSM-Modem
Motorola GSM	Motorola GSM	GSM-Modem
Nokia DTP-2	Nokia DTP-2	GSM-Modem
Siemens GSM	Siemens GSM	GSM-Modem
Dr. Neuhaus Furycard 19.2 (DUO)	Siemens GSM	GSM-Modem
Smart ClipperCom	Smart Clipper	GSM-Modem
GVC extern	GVC extern	V24-Card with ext. Modem

There are following Siemens Handy's possible:

E 10 D for D-Netz
S 10 D for D-Netz
S 10 Aktiv for D-Netz
S11 E for E-Netz

All handy written down above functioning with the pcmcia-card serie 10. The original number of siemens for this card is:

Siemens E10 S10 activ 511 PC-Card

And the cable between handy and pcmcia-card is::

0030 LIFAR L36880-N1201-A11 WE Nr. 78783

Don't use the cable for connecting a PC (PC Com1 oder Com2 [RS232] to the handy)!!

After inputting all these adjustments, the TELE-Network device is ready for use. If you go through the menu another time, you can check the parameters and change them if necessary.

So you can also use the newer handys, like for e.g. siemens S25, C35, or nokia (6150, 5110). For the use of this handys, you need to plug in a serial PCMCIA-card, that your tele-book gets a com-port. Now you can use the cable for this handys, that you use normally for the connect to the pc. After this, you select the siemens GSM or the nokia dtp-2 card in this menu item.

Caution:

The operation of these remote maintenance units is only allowed if a supervising person is present who can intervene in the installation at any time. Please do not intervene in running programmes without visual communication or control.

Before installing the TELE-LINK-Network devices, please connect them by all means with earthing PE at the casing or at the screw terminal!

Please read the user's manual closely before installing the device. There is no responsibility taken for damage due to incorrect connection or handling.

7.7 Menu item Configuration

7.7.1 Device type

With this option you configure the first function of this device. You can configure following possibilities:

- PG-TELE The device is next to the programming device and is connected to it
- PLC-TELE-S5 The device is next to the plc-control and is connected to it
- PLC-S5 KOR/MUX The device is not connected directly to the plc but via a SIEMENS Multiplexer (PG-BUS-dialling), via a coordinator (e.g. 923 C) or via THE IBX-Bus (Bus system of PI with PG-BUS-dialling); (special type of PLC-TELE).
Caution:
The built-in Multiplexer is not active in this operation mode!
- PLC-S7 300/400 This device is connected to a S7-300/400 plc
- PLC-S7 200 9K6 This device is connected to a S7-200 plc and communicates with 9600 baud
- PLC-S7 200 19K2 This device is connected to a S7-200 plc and communicates with 19200 baud
- PLC-S5-F-Type This device is connected to a S5-plc, but it is a F-type plc.

Operating instructions Tele-Network

7.7.2 Device Name

If you input the a device name as for example the installation name, number or place, the usage of several TELE-Network devices and their management is made easier. The device name can be asked for with the option “remote name“ and it can be shown on the display. By pressing the cursor-up/down keys, numbers and letters can be edited and the position of the cursor can be changed by using the cursor-left/right key. Press ENTER in order to finish and save the input of the device name.

7.7.3 PG-MUX-Mode (Only for PLC-TELE and S5)

With this menu item, you can use the Multiplexer that is integrated in the TELE-Network device. For the operation with the Multiplexer, there are the following adjustments:

- PG-MUX Multiplexer is active between the telephone line and the PG-socket
- PG<->PLC PG-socket is connected to the PLC-socket (fast speed, **without** timecontrol, Multiplexer is turned off). When connected to a caller, the PG-socket is out of funktion. Behind the disconnection from a caller, the PG-socket will communicate with the PLC-Socket
- PG-MUX-C PG-socket is connected to the PLC-socket (fast speed, **with** timecontrol, Multiplexer is turned off). When connected to a caller, the PG-socket is out of funktion. Behind the disconnection from a caller, the PG-socket will communicate with the PLC-Socket

This mode is **only** for **S5-Mode** of the Tele-Network-Device in use.

7.7.4 Telephone

7.7.4.1 Dial mode

In this menu item, you can choose between two different dialling methods:

- Tone The modem dials with the multi-frequency dialling method (most common method for telephone installations, in the public telephone network only used with digital exchanges)
- Pulse The modem dials with the pulse method (sometimes, this is still used in older telephone installations, most common method in the public telephone network in Germany)

7.7.4.2 Extension

There are only two possible adjustments:

- NO The device is either connected directly to the line, i.e. you do not need prefix number in order to get a line or the device is within a private branch exchange and should call a partner within this system.
- YES The device is not connected directly to the line. You then need

either a prefix number or a certain key combination to get to the line.

7.7.4.3 Outline Code

Here, the key combination or the prefix number that are necessary for the connected telephone installation or each telephone set are set in order to call the line.

- Numbers 0 to 9 If you have to dial for example “0“ in order to get a line, you have to input “0“ here
- Earthing key (R) The earthing key can be input with the mathematical sign (>)
- Flash-key (#) The flash-key corresponds to the normal exclamation mark (!)
- Break 1/8sec It is the / (Slash)
- Break 2sec It is the , (comma)

7.7.4.4 Count of Rings

This menu item sets the number of rings after which the TELE-Network device should pick up.

- Number of rings=0 **CAUTION:**
With this adjustment, the modem does not pick up independently. With the menu item “pick up“ you have to make the modem pick up manually.
- Number of rings=5 Modem picks up after the adjusted number of rings.

7.7.4.5 Busy Identify

With some telephone installations, the free line signal may sound like the busy signal. Then, the modem is not able to dial. This ability to identify a busy signal is turned off with this menu item:

- NO Device does not identify a busy signal and dials immediately after starting the call (standard)
- YES Device waits for the free signal and checks if there is a busy signal. It now either dials after recognising the free signal or it does not dial if the line is busy.

Operating instructions Tele-Network

7.7.4.6 PCMCIA-Modem type (Only with TELE-BOOK)

With this menu item is plugged in PCMCIA-card in the TELE-BOOK configured, so the TELE-BOOK can initalize the card and take a secure telefon connection.

Following PCMCIA-Cards are in the moment possible:

Card-name	Config-name	Type
Elsa MicroLink 28800	Elsa-MicroLink	TAE-Modem
Megahertz	Megahertz	TAE-Modem
PSION DACOM Gold Card Global 33K6 and 56K with GSM	GoldCard	TAE-Modem
Ericson GH688	Elsa-MicroLink	GSM-Modem
Motorola GSM	Motorola GSM	GSM-Modem
Nokia DTP-2	Nokia DTP-2	GSM-Modem
Siemens GSM	Siemens GSM	GSM-Modem
Dr. Neuhaus Furycard 19.2 (DUO)	Siemens GSM	GSM-Modem
Smart ClipperCom	Smart Clipper	GSM-Modem
GVC extern	GVC extern	V24-Card with ext. Modem

There are following Siemens Handy's possible:

E 10 D for D-Netz
S 10 D for D-Netz
S 10 Aktiv for D-Netz
S11 E for E-Netz

All handy written down above functioning with the pcmcia-card serie 10. The original number of siemens for this card is:

Siemens E10 S10 activ 511 PC-Card

And the cable between handy and pcmcia-card is::

0030 LIFAR L36880-N1201-A11 WE Nr. 78783

Don't use the cable for connecting a PC (PC Com1 oder Com2 [RS232] to the handy)!!

After inputting all these adjustments, the TELE-Network device is ready for use. If you go through the menu another time, you can check the parameters and change them if necessary.

So you can also use the newer handys, like for e.g. siemens S25, C35, or nokia (6150, 5110). For the use of this handys, you need to plug in a serial PCMCIA-card, that your tele-book gets a com-port. Now you can use the cable for this handys, that you use normally for the connect to the pc. After this, you select the siemens GSM or the nokia dtp-2 card in this menu item.

7.7.5 Connection

7.7.5.1 Hangup hearing

With this menu item, you adjust whether you want to hear how the modem hangs up. If so, you can also determine a time span (in seconds):

- 0 second: You cannot hear how the modem hangs up.
- 1 to 10 seconds: You can hear for the duration of 1 to 10 seconds how the modem hangs up.

7.7.5.2 Max. Connect time

With this menu item, you determine the maximum duration of the connection. After this maximum, the connection is disrupted. The duration is set in minutes. The maximum is 60 minutes.

7.7.5.3 Max. Idletime

Here, you determine the maximum duration of the idle operation of the PG. The time span starts when there is no exchange of data between the plc and the PG anymore. After the maximum time is up, the connection is disconnected. The duration is set in minutes. The maximum is 60 minutes.

7.7.5.4 Baud rate manual

This entry of the Baud rate is only valid for data and speech operation. When switching from speech to data operation, the modem has to start with an initial value (initial Baud rate) in order to build up the connection. This initial Baud rate corresponds to the "Baud rate manual".

Following items are possible:

- | | |
|------|---|
| 12: | 1200 Baud |
| 24: | 2400 Baud |
| 48: | 4800 Baud |
| 96: | 9600 Baud |
| 144: | responding of the modem type, max. Baudrate 14400 or 33600 Baud |

7.7.6 Recallmode (Only for PLC-TELE)

Here, you can turn the return call mode on or off.

CAUTION:

This menu item is only necessary for the PLC-TELE.

7.7.7 Recallnumber (Only for PG-TELE)

Here, you can input the prefix number plus the number with which the TELE-Network device that requires a return call can be reached.

CAUTION:

This menu item is only active with the PG-TELE.

7.7.8 Access code

7.7.8.1 PIN device local

Password for the protection of the configuration of your TELE-Network device (PLC-TELE or PG-TELE). The parameters of the device can only be changed after the input of the correct password.

(local => means the device in front of you).

Max. 6 characters

7.7.8.2 PIN plc local

Password of the device that is located at the installation (PLC-TELE). This password protects the connected plc-control against unauthorised access via the telephone line. Without inputting a password, "PLC-OFFLINE" is reported via the telephone line and then there is an access is not possible.

(local => means the device in front of you).

Max. 6 characters

7.7.8.3 PIN device remote

Input of the password "PIN device local" at the partner device with which you are connected via the telephone line. Input only possible if the partner device does not have a password protection or if the user knows the password.

(Remote => means the device you have access to via the telephone line)

Max. 6 characters

7.7.8.4 PIN plc remote

Input of the password “PIN plc local“ at the partner device with which you are connected via the telephone line. Input only possible if the partner device does not have a password protection or if the user knows the password.

(Remote => means the device you have access to via the telephone line)

Max. 6 characters

The access to a TELE-Network device that is protected by a password via the telephone line (see Login Remote) or at the device itself is only possible if the user knows the password.

CAUTION:

Please do not forget your password or keep it at a safe place. In case you forget the password, you have to send the device back to the producer because it has to be reset in its original state. This cannot be done by the customer or the partner or by telephone line!

7.7.9 S7-Config (Only for PLC-TELE)

7.7.9.1 Local MPI-Adress

With this menu item you configure the device, which MPI-adress is correct for the bus account. Default is 0, max. adress is 31.

7.7.9.2 Max. MPI-Adress

With this configuration the device is known, which is the maximum active mpi-adress.

7.7.9.3 S7-MPI-Adress

Here is write down the mpi-adress for the plc, which you need for following options:

- Pager-Option
- Fax-Option
- SPS-Option

Have you don't configured a mpi-adress, so the device doesn't know, which plc gives him the order to dial, to send a fax. Have you configured the S7-poll-list, so this entry is not active.

7.7.9.4 S7-Poll-List

If you have more than one plc's, which have order to fax, send sms for the tele-network device, so you can edit this list with the addresses of this plc's. This list is be reed for following options:

- Pager
- Fax
- SPS/ASCII-TELE.

If you edit only a „0“ in this list, so the device uses only the S7-MPI-Adress-entry.

7.8 Menu item Options

7.8.1 Pager-TELE

7.8.1.1 PAGER operation

With this menu item, you can turn the PAGER-TELE operation on or off.

7.8.1.2 PAGER flag

With this menu item, you can input the common flag word for the data communication.

CAUTION:

Use even numbers only (e.g. FW 122)! Only 0 to 254.

7.8.1.3 PAGER-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow and source at the PAGER-operation.

7.8.2 PLC/ASCII-TELE

This menu item is only activated if the TELE-Network device has a plc-option or an ASCII-option.

7.8.2.1 Modem Control

In this menu item, you can adjust how the communication between the plc and the modem is carried out.

NO:	plc does not have the possibility to control the modem
with flag word:	PLC-TELE-LINK and plc have a common flag word for controlling
with digital I/O:	PLC-TELE-LINK and plc communicated via the digital I/O-level

Operating instructions Tele-Network

7.8.2.2 Modem flag

In case you selected “with FW“ (with flag word) in the menu item “modem control“, you can now enter the common flag word for the modem control.

CAUTION:

Use even numbers only (e.g. MW 120)! Only 0 to 254.

7.8.2.3 SPS-TELE operation

With this menu item, you can turn the PLC-TELE operation on or off.

7.8.2.4 SPS-TELE flag

With this menu item, you can input the common flag word for the data communication.

CAUTION:

Use even numbers only (e.g. FW 122)! Only 0 to 254.

7.8.2.5 SPS-TELE-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow, source, and target at the PLC-TELE operation.

DB1 to 255, DW 0 to 998.

7.8.2.6 ASCII operation

With this menu item, you can turn the ASCII-TELE operation on or off.

7.8.2.7 ASCII flag

With this menu item, you can set the common flag word for the data communication.

CAUTION:

Use even numbers only (e.g. MW 122)! Only 0 to 254.

7.8.2.8 ASCII-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow, source, and target at the ASCII-TELE operation.

DB1 to 255, DW 0 to 998.

7.8.3 Fax-TELE

This menu item is only activated if the TELE-Network device has a FAX-option .

7.8.3.1 FAX-TELE operation

With this menu item, you can turn the FAX-TELE operation on or off.

7.8.3.2 FAX-TELE flag

With this menu item, you can input the common flag word for the data communication.

CAUTION:

Use even numbers only (e.g. FW 122)! Only 0 to 254.

7.8.3.3 FAX-TELE-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow and source at the PLC-TELE operation.

DB 1 to 255, DW 0 to 998.

7.8.3.4 Resolution

With this menu item, you can select the resolution of the fax transmit. Possible parameters are:

- heavy
- fine

7.8.3.5 FAX-POLL-DB

In this menu item you define the communication-DB for polling. It has the same building like the FAX-KOM-DB. But it is only activ, when the TELE-LINK-Network device gets a fax call with a blank paper.

So you call the TELE-LINK-Network-device with your fax, send him a blank page, and the device will call back your transmitted fax number with the data configured in the FAX-POLL-DB.

7.8.4 Kodak-Option

This menu item is only active, if you have for both devices the kodak-option. If you have connect between both modems, here you can activate the possibility, so you can make a picture with the camera, load the dig. pictures into the camera or from the camera. Or you can shut a picture with the camera, but you are not at the same place as the camera.

7.8.5 Symadyn-Option

This option is only active, when you have installed this option for both tele-network devices. If you have the connect of both modems, you can activate this option in the PG-TELE, so the network-devices helps you to programm the symadyn-card over the telefon line.

7.8.6 Menu item digital I/O (only with TELE-DIO-Module)

7.8.6.1 Local inputs

In this menu item you can see on the display the current settings of the digital input level that is built-in optionally.

This display is continuously actualised until you leave this menu item.

CAUTION:

Only decimal values are shown.

You can see the values in the following table:

Decimal value	Status Input 1	Status Input 2	Status Input 3	Status Input 4
00	OFF	OFF	OFF	OFF
01	ON	OFF	OFF	OFF
02	OFF	ON	OFF	OFF
03	ON	ON	OFF	OFF
04	OFF	OFF	ON	OFF
05	ON	OFF	ON	OFF
06	OFF	ON	ON	OFF
07	ON	ON	ON	OFF
08	OFF	OFF	OFF	ON
09	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

Operating instructions Tele-Network

7.8.6.2 Local outputs

The digital outputs that are optionally built-in are set here.

CAUTION:
You have to set a decimal value.

This is shown in the following table

Decimal value	Status Output 1	Status Output 2	Status Output 3	Status Output 4
00	OFF	OFF	OFF	OFF
01	ON	OFF	OFF	OFF
02	OFF	ON	OFF	OFF
03	ON	ON	OFF	OFF
04	OFF	OFF	ON	OFF
05	ON	OFF	ON	OFF
06	OFF	ON	ON	OFF
07	ON	ON	ON	OFF
08	OFF	OFF	OFF	ON
09	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

7.8.6.3 Remote Input

This inputs behave analogously to the local inputs but they are situated at the other station (PLC-TELE).

7.8.6.4 Remote Output

These outputs behave analogously to the local outputs but they are situated at the other station (PLC-TELE):

7.8.6.5 Offline Output

Here, you can type in the Default-value of the outputs that are built in the device optionally. In case there will be no connection, the optionally built-in outputs of the called device are set immediately to this value.

7.8.6.6 Mode

Here, the following modes can be set for the digital I/O-level:

- **Manual** This is the normal mode for digital I/O. Here, you can set the outputs of the I/O of your partner device.
- **Mirror** As soon as there is a telephone connection, the inputs of the PG-TELE are mirrored on the outputs of the PLC-TELE and vice versa.
- **Dialling** In this mode, the TELE reacts to the digital inputs with an alarm report. As soon as only one alarm input changes, the TELE-device decodes the combination of inputs and automatically calls the resulting subscriber entry. (See table in chapter 7.8.6.1 and 7.8.6.2).

7.8.7 PCS-Option

This menu item will be active, if you have installed for both tele-network-devices the pcs-option. If you have a telephone connection, this means, you have the connect between both modes, and you start you configuration-software for the pcs, both devices are be switched in the pcs-mode and gives you the help for programming the pcs.

7.9 Menu item Special

7.9.1 To PG/PLC interface?

In this menu item it is decided at the PG-TELE whether the communication at the PLC-TELE is made via the PLC or via the PG-socket.

Normally, the PG-TELE communicates with the plc via the PLC-TELE and the PLC-socket. If there is for example a 2nd plc connected to the PLC-TELE at the PG-socket, then the PG-TELE can communicate with the plc at the PG socket of the PLC-TELE with this adjustment.

This menu item is also valid for the H1, L1 and L2 communication if these software options are released. In this case, the CP is connected to the PG-socket of the PLC-TELE.

The following adjustments are possible:

- Connect PG-socket with PLC-socket normal setting
- Connect PG-socket with PG-socket 2nd plc or switch to CP connection

7.9.2 Break Tx-line

This menu item is valid for example for turning on the H1. In case the connected CP does not react anymore to the communication, a break with adjustable duration can be sent to the CP. (Duration in seconds, 0 to 30)

7.9.3 S7-200 on

If you want to program a S7-200 plc, you have to switch to this mode after connecting the modems. It is very important, that the plc-type is S7-200. In the display of both devices stands after you switch the mode: S7-200 on. If you want to stop this mode, press the cursor_to_the_left-button, and this mode stops.

7.9.4 IBX-Test (Only for PLC-S5 KOR/MUX)

If you have selected the device type KOR/MUX-TELE, you have now the possibility, to test the connected pg-bus. First you select Test IBX: xx; xx stands for the pg-bus-number 1 to 31. The tele tells you, if the selected slave is connected. Automatic the tele tries to connect the plc and gives you an OK if the Connection is good, or gives you the message, where the failure is.

7.9.5 Menu item Direct mode

You can select this mode in order to realise a data transmission that does not correspond to a communication protocol specific for controls as for example the AS511-protocol of Siemens-plcs.

After the TELE-Network devices have built up a connection, the direct / transparent mode can be turned on. There is now a direct coupling between the PG-socket of the PG-TELE and the PG-socket of the PLC-TELE: This means that data that enters the PG-TELE is released unchecked at the PLC-TELE. In this way, you can transfer files from one PC to another, configure a connected OP, or simply transfer and execute the protocol of another control which is not supported by the TELE-Network devices.

CAUTION:

The direct mode can only be activated from the PG-TELE! Moreover, it is an unprotected transmitting medium without special checking. Because of that it is a plain modem route with modem security (correction of errors according to modem standards). We cannot take any guarantee for run time errors.

7.9.5.1 Source-Com

With this menu item, the device is configured for the so-called transparent mode. The TELE-Network device is adjusted to parameters that are specifically made for transmission.

- PG or PLC (-socket) connection (input) from the dialling TELE-LINK
- Baud rate 300, 1200, 1800, 2400, 4800, 9600, 19200, 38400 Baud
- Number of data bits 5 to 8 bits
- Parity N (none), E (even), O (odd)
- Number of stop bits 1, 1.5 and 2 bits

7.9.5.2 Dest.-Com

In this menu item, the device is configured for the so-called transparent mode. The TELE-Network device is adjusted to parameters that are specifically made for transmission.

- PG -or PLC (-socket) connection (input) from the TELE-LINK that is called
- Baud rate 300, 1200, 1800, 2400, 4800, 9600, 19200, 38400 Baud
- Number of data bits 5 to 8 bits
- Parity N (none), E (even), O (odd)
- Number of stop bits 1, 1.5 and 2 bits

Operating instructions Tele-Network

7.9.5.3 Direct Mode ON

If there is a connection between PG-TELE and PLC-TELE, the direct mode can be turned on with this menu item. This mode is valid until the transmission is disconnected by using the cursor-left key.

7.9.5.4 Direct Mode On with HW

If there is a connection between PG-TELE and PLC-TELE, the direct mode can be turned on with this menu item. This mode is valid until the transmission is disconnected by using the cursor-left key. With this mode, there is a hand shaken connection between the plc-tele and the device, you want to communicate. Here is the DTR and DSR line used.

7.9.6 Tele-Switch

With this option, you can configure the tele-switch device for the Tele-Network-devices. The TELE-SWITCH can be operated at the PLC-or PG-socket of a TELE-Network device that is configured as PLC-TELE. In the PG-TELE, the following adjustments have to be made for calling a channel:

Menu item: TELE-SWITCH

1st line: TELE-SWITCH

2nd line: xx to ChaNr: yy xx = PG or PLC (with cursor-up/down key)
 yy = Channel 00 (fed-through mode finished)
 yy = Channel 01 to 16 (call corresponding slave number)

After this input, the question “Switch? YES/NO“ is displayed:

- YES Input is taken over, channel is called
- NO Input is dismissed, present condition remains

If there is a call, then it is reported whether the call or the transformation respectively were successful or not. After connection clear-down, the SWITCH is automatically deactivated.

7.9.7 PG-coupling

With this menu item, at an existing coupling between two TELE-Network devices the mode PG-coupling is set.

Please keep to the following scheme by all means:

PG-TELE: The PG has to be configured as ACTIVE for the coupling

PLC-TELE: The PG has to be configured as PASSIVE for the coupling

After the phone connection between the TELE-Network devices has been made, the sub menu item "PG-coupling on" in the menu item PG-coupling at the PG-TELE is turned to "yes". In the top menu item "Messages" you can see the message "PG-ONLINE". If there is a communication error or disconnection, the message "PG-OFFLINE" appears.

CAUTION:

At the PG that is connected to the PLC-TELE the message "PLC-connect in the PLC unknown" might appear. With this artificially produced error report, the PG-TELE tests the readiness of the PG that is connected to the PLC-TELE. You can simply neglect this report.

7.10 Language

By using the cursor-up/down key, you can select between German and English menu drive.

7.11 Information

7.11.1 Version

This menu item informs you about the software release of your TELE-Network device.

7.11.2 Remoteversion

This menu item informs you about software release of the called TELE-Network device. If there is a more recent or older release, a software update can be made. (see chapter 7.5.7 and 7.5.8).

Operating instructions Tele-Network

7.11.3 Remotename

In this menu item, the device name of the called device is displayed. In this way, can check with which installation a connection has been built up. This only works on the condition that the called device has a device name. (see chapter 7.7.2)

7.11.4 Copyright

Copyrights of the TELE-Network devices:
© 1994, 95, 96, 97, 98, 99, 2000 by PI & TIS

8 Special Functions of the TELE-Network devices

8.1 RECALL mode

In order to optimise or save phone charges, for example for longer and often international calls, you can receive recalls from the TELE-Network device of your interlocutor. After the firm or the technician there has reported a disturbance of the installation, you call there with the TELE-Network device and cause a return call. In this way, the phone costs are at the customer's expense.

Please make the modifications described in the following chapters in order to be able to work with the return call mode.

8.1.1 PLC-TELE

On the PLC-TELE, you have to config following:

Count of Rings:	minimum 1 or bigger
Dial Mode:	Tone or Pulse
Extension:	Yes or No
Outline Code:	0,1,2,3,4,5,6,7,8,9,!,",",/,>,#,X,W,*
Recall Mode:	YES

8.1.2 PG-TELE

In the PG-TELE, you have to configure following:

Count of Rings:	minimum 1 or bigger
Recall Number:	Own telefon number of this tele-network-device, if you want a Recall from other areas, only with precall number

In your Edit Subscriber, you you have configured the telefon number, you want the recall, you just have to select the baudrate beginning with the Rxxx. So for example the R144, this means, you want a recall with 144000 baud.

As soon as the Baud rate with the "R" has been activated, a new input field will be shown after the input of the phone number (RC-PNr.) This return call - prefix number stands for the international code of the PG-TELE (for Germany, the international code is 0049). If the return call is a national one, just confirm with ENTER (field remains empty). If you have input a RC-PNr., you must not delete the ZERO of the prefix of the return call number. This happens automatically when the TELE-Network device dials. This means that the return call number always remains completely in the entry.

Operating instructions Tele-Network

8.1.3 Use recall-mode

In order to start the return call, select (after having made the aforementioned adjustments) the respective subscriber in the menu item "subscriber dialling". As usual, you start the dialling with ENTER and in this way you also start the return call.

The TELE-Network devices communicate with each other, exchange the return call numbers, hang up immediately and then the PLC-TELE calls back the other TELE-Network device within a minute. If there is no return call, please check whether the adjustments in the TELE-Network device (PG-TELE and PLC-TELE) are correct and whether the device that calls back had got a line.

8.2 Operation of several plcs at one TELE-Network device

If you want to attend several automation devices that are not networked, there are two possibilities to connect them to a TELE-Network device.

8.2.1 Operation with Siemens MUX-757

Connect the PLC's in a star-shaped way with a MUX-757 of Siemens and connect the latter to a PLC-TELE. In this way, you can programme up to maximally 8 plc controls via one telephone connection. Turn the TELE-Network device to the operation mode "KOR/MUX" (see chapter 7.7.3).

8.2.2 Operation with intelligent Bus-terminal IBX

With the intelligent Bus-system IBX-terminal up to 30 plcs can be contacted. At the individual IBX-terminals, set the PG-number of the respective control via the DIP switch that is located at top. The terminals are connected with each other in a bus-shaped way via a 4wire RS485-line. Please note: Use a 2 x 2 x 0,25 cable, single shielded. The shield has to be connected both ways.

With your S5-software you contact with both variants the desired AG as usual via the PG-BUS (Bus/path calling). Switch the TELE-Network device to the operation mode "KOR/MUX" (see chapter 7.7.3).

8.3 Operation of several plcs via the H1-Bus

It is no problem to attend a complete H1-network.

With an additional software option, it is possible to configure the PLC-TELE in such a way that a “local AG“ can be connected at the PLC-socket of the PLC-TELE and that a CP can be connected at the PG-socket. After the connection set-up, the programmer decides at the PG-TELE whether he/she wants to programme at the PLC or at the CP. With the Bus-calling of his/her S5-software, he/she can reach and programme all the SIMATIC-S5-PLCs that are connected to the H1-Bus.

With the menu item “Special items“ and the submenu item “To the PG/PLC-interface“, it is decided at the PG-TELE whether the communication at the PLC-TELE is via the PLC-socket or the PG-socket.

Possible adjustments:

- Connect PG-socket with PLC-socket normal setting
- Connect PG-socket with PG-socket 2nd plc or switch to CP-connection

8.4 Operation of several plcs via the L1-Bus

It is no problem to attend a complete L1-network.

With an additional software option, it is possible to configure the PLC-TELE in such a way that a “local PLC“ can be connected at the PLC-socket of the PLC-TELE and that a CP can be connected at the PG-socket. After the connection set-up, the programmer decides at the PG-TELE whether he/she wants to programme at the PLC or at the CP. With the Bus-calling of his/her S5-software, he/she can reach and programme all the SIMATIC-S5-PLCs that are connected to the L1-Bus.

With the menu item “Special items“ and the submenu item “To the PG/PLC-interface“, it is decided at the PG-TELE whether the communication at the PLC-TELE is via the PLC-socket or the PG-socket.

Possible adjustments:

- Connect PG-socket with PLC-socket normal setting
- Connect PG-socket with PG-socket 2nd plc or switch to CP-connection

8.5 Operation of several plcs via the L2-Bus

It is no problem to attend a complete L2-network.

With an additional software option, it is possible to configure the PLC-TELE in such a way that a “local PLC“ can be connected at the PLC-socket of the PLC-TELE and that a CP143 or a CP1430 (H1) can be connected at the PG-socket. After the connection set-up, the programmer decides at the PG-TELE whether he/she wants to programme at the PLC or at the CP. With the Bus-calling of his/her S5-software, he/she can reach and programme all the SIMATIC-S5-PLCs that are connected to the L2-Bus.

With the menu item “Special items“ and the submenu item “To the PG/PLC-interface“, it is decided at the PG-TELE whether the communication at the PLC-TELE is via the PLC-socket or the PG-socket.

Possible adjustments:

- Connect PG-socket with PLC-socket normal setting
- Connect PG-socket with PG-socket 2nd plc or switch to CP-connection

8.6 Coupling of several plcs via the telephone line: SPS-option

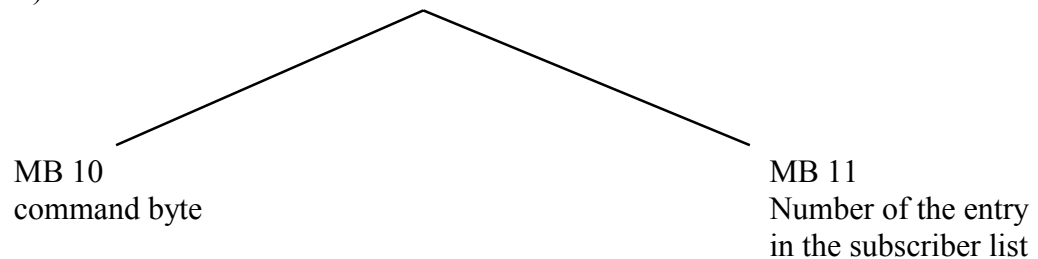
With the special option SPS-TELE, texts, modes, data modules etc. that have already been stored in the plc can be transmitted from the plc to another plc or they can be fetched from the plc if needed.

8.6.1 Set up a communication word between the plc and the TELE-Network device

With each option that demands a common communication flag word between plc and TELE-Network device, the flag word is set up according to the following scheme and is read by the TELE-Network device every 5 seconds.

Example: MW10 (can be divided into MB10 and MB11)

MW (Flag word) 10



Reference card for the command byte

- 01h: Start dialling process
After the connect with the called station, a 10h is written back in this register.
- 02h: Hang up the modem
This command is only possible if the connected TELE-LINK is the caller or if there is no connection by phone at all. The TELE-LINK then disconnects the existing connection. If the command has been executed, a 30h will appear in the status register. In case of an error, a 50h will appear.
- 03h: Hang up the modem in any case.
This instruction is executed in any case immediately and directly. A 30h will appear in the same register.

Operating instructions Tele-Network

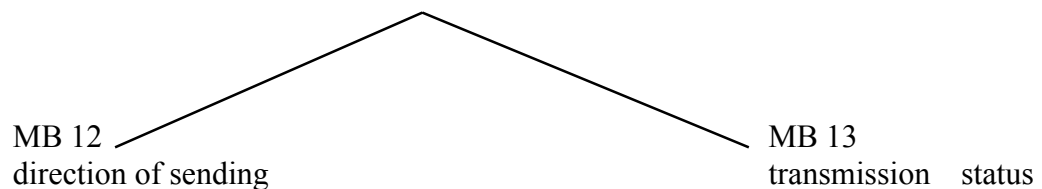
Return messages of the TELE-network device in the command byte

- 10h: Modem connection with TELE-LINK (plc-TELE or PG-TELE) existing
- 20h: The number of the desired subscriber entry is invalid
- 30h: Modem connection does not exist anymore, e.g. after hanging up or after the partner has hung up
- 40h: A Connect is not possible (probably because line is busy)
- 50h: The command to hang up (02h) could not be executed
- 60h: Modem connection with ASCII subscriber exists

8.6.2 Setup of the SPS-TELE flag

Example: MW12 (can be divided into MB12 and MB13)

MW 12



Direction of sending

- 01h: The command to send is triggered
The entries in the communication DM are treated as a command to send. The defined sector is transmitted to the partner.
Sender = sender of the command (source)
receiver = partner (target)
- 02h: The command to fetch is triggered
The entries in the communication DM are treated as a command to fetch. The defined sector is transmitted from the partner to the sender of the command.
Sender = sender of the command (Target)
receiver = partner (source)

Transmission status

- 01h: command ready without mistakes
- 02h: command executed, but you have to check for TIMEOUT, the command should be completely executed after 45 seconds
- 03h: source module does not exist or is too short
- 04h: target module does not exist or is too short
- 05h: mistake; the command has to be repeated
- 06h: configuration DB does not exist
- 07h: parameter fault
- 08h: the partner device is not a SPS-TELE

8.6.3 Setup of the communication data module at the SPS-TELE

- DW0: KC = data type of the source: (at the moment, only DB possible)
 'DB' data module
 'EB' entry byte
- DW1: KF = source DB number
- DW2: KF = initial address of the source sector = StartDWNr
- DW3: KF = number of words
- DW4: KC = Data type of the target (at the moment only DB possible)
 'DB' data module
 'EB' entry byte
- DW5: KF = target-DB number
- DW6: KF = initial address of the target sector = StartDWNr
- DW7: KF = number of words

Caution: If you use the plc-option with an siemens s7-plc, you have to look before programming the Communication-DB for even dataword-addresses. So this Communication-DB looks like so:

adress	name	typ	value
0.0		STRUCT	
+0.0	source_datatyp	CHAR	' D '
+1.0	source_datatyp1	CHAR	' B '
+2.0	source_DB_Nr	INT	10
+4.0	source_beginning_DW_Nr	INT	0
+6.0	source_number_of_words	INT	2
+8.0	destination_datatyp	CHAR	' D '
+9.0	destination_datatyp1	CHAR	' B '
+10.0	destination_DB_Nr	INT	10
+12.0	destination_beginning_DW_Nr	INT	0
+14.0	destination_number_of_words	INT	2
+16.0	temp_array	ARRAY[1..512]	
*2.0		INT	
=1040.0		END_STRUCT	

Please note, that you prove the edited DB in your plc, because, there are often failures, if you use in your Step 7 Software for editing your DB, the declaration window or the data window!

8.6.4 Send data with the SPS-TELE

In order to send data to or fetch data from another plc, you first have to define a communication flag word, a communication data module, and the PLC-TELE-flag in the TELE-LINK. The communication flag word and the PLC-TELE-flag always have to be input as an even number (0, 2, 4, 6, ..., 254).

In order to start the transmission and to call the subscriber 4, the plc now gives the following command to the communication flag word (f. ex. MW 10): 0104h.

The remaining data and the actual communication are executed according to the scheme defined in the DB.

Please note, that you have selected the pg-mux-mode for **pg-mux** (see cap. 7.7.3).

8.7 Send data from the plc to a fax: fax-option

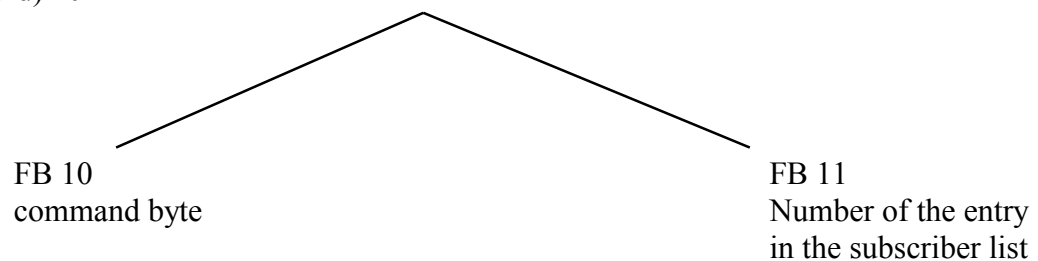
With the special option FAX-TELE, texts, modes, data modules that have already been stored in the plc can be transmitted to a fax if needed.

8.7.1 Set-up of a communication word between plc and TELE-Network device

With each option that demands a common communication flag word between plc and TELE-Network device, the flag word is set up according to the following scheme and is read by the TELE-Network device every 5 seconds.

Example: MW10 (can be divided into MB10 and MB11)

MW (Flag word) 10



Reference card for the command byte

- 01h: Start dialling process
After the connect with the called station, a 10h is written back in this register.
- 02h: Hang up the modem
This command is only possible if the connected TELE-LINK is the caller or if there is no connection by phone at all. The TELE-LINK then disconnects the existing connection. If the command has been executed, a 30h will appear in the commando register. In case of an error, a 50h will be appear.
- 03h: Hang up the modem in any case.
This instruction is executed in any case immediately and directly. A 30h will appear in the same register.

Return messages of the TELE-network device in the command byte

- 10h: Everything OK, fax sent
- 20h: The number of the desired subscriber entry is invalid
- 30h: A data module is too small
- 40h: A Connect is not possible (probably because line is busy)
- 50h: Error occurred when fax was transmitted

8.7.2 Set up of a communication data module at the FAX-TELE

DW 0 - DW 9: the station-ID of the plc-fax is input as KC
e.g. +49 1122331121

CAUTION:

Input only valid ASCII-signs, otherwise blanks up to DW 9!

DW10: Source data module 1
 DW11: start data word in this DB
 DW12: number of data words in this DB
 DW13: source data module 2
 DW14: start data word in this DB
 DW15: number of data words in this DB
 DW16: etc....

The end of the list is recognised if the number 0 (zero) is input in the source data module.

Example: The characters in DB 5 up from DW 4 100 words and in DB 10 up from DW 0 200 words should be sent:

Set-up of the module:

DW0 - DW9 = KC'+4996199999' (as you like it)

DW 10: 5
 DW 11: 4
 DW 12: 100
 DW 13: 10
 DW 14: 0
 DW 15: 200
 DW 16: 0 (end is recognised)

adress	name	typ	value
0.0		STRUCT	
+0.0	ID of sender	ARRAY[1..20]	
*1.0		CHAR	'+4','99','61','99','99','9'
+20.0	Source_DB_1	INT	5
+22.0	Source_Start_DW_1	INT	4
+24.0	Source_Count_of_Words1	INT	200
+26.0	Source_DB_2	INT	10
+28.0	Source_Start_DW_2	INT	0
+30.0	Source_Count_of_Words2	INT	400
+32.0	End_ID	INT	0
=34.0		END_STRUCT	

8.7.3 Sending a fax with the FAX-TELE-option

If you want to send a fax, you have to define a communication flag word and a communication data module in the TELE-LINK. The communication flag word always has to be an even number in the range of 0, 2, ... 254.

In order to start the transmission and to call the subscriber 4, the plc now gives the following command to the communication flag word (f. ex. MW 10): 0104h.
The remaining data and the actual communication are executed according to the scheme defined in the DB.

Please note, that you have selected the pg-mux-mode for **pg-mux** (see cap. 7.7.3).

8.8 Send data from the plc to a modem subscriber: ASCII-option

The plc can exchange data with a so-called ASCII-subscriber via data modules. The ASCII-subscriber is a normal modem. Only V.42-BIS connections are allowed.

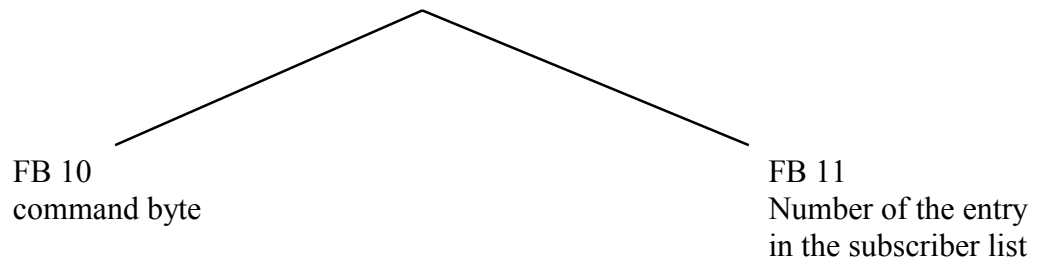
The caller might be either the ASCII-subscriber or the plc or it can be started via the TELE-LINK.

8.8.1 Setup of the communication word between plc and TELE-Network

With each option that demands a common communication flag word between the plc and the TELE-Network device, the flag word is set up according to the following scheme and is read by the TELE-Network device every 5 seconds.

Example: MW10 (can be divided into MB10 and MB11)

MW 10



Reference card for the command byte

01h: Start dialling process

After the connect with the opposite position, a 10h is written back in this register. When calling a ASCII-TELE-LINK, you receive a 60h at the latest 20 seconds after both modems have built up a connection. Another possibility is that the called ASCII-subscriber already has a line that he wants to send to the plc before those 20 seconds are over. If the plc wants to send immediately, you have to call with 04h.

02h: Hang up the modem

This command is only possible if the connected TELE-LINK is the caller or if there is no connection by phone at all. The TELE-LINK then disconnects the existing connection. If the command has been executed, a 30h will appear in the commando register. In case of an error, a 50h will be appear.

03h: Hang up the modem in any case.

This instruction is executed in any case immediately and directly. A 30h will appear in the same register.

04h: An ASCII-subscriber is called. If there is a connect afterwards, then a 60h is sent to the plc for the connect with the ASCII-subscriber.

Advantage: The plc can set down the ASCII-commands immediately after the connect.

CAUTION:

If there is a TELE-LINK (PLC or PG) at the other end, those cannot communicate with each other. Only use this if you are sure that the subscriber definitely is a ASCII-subscriber. Otherwise, use 01h.

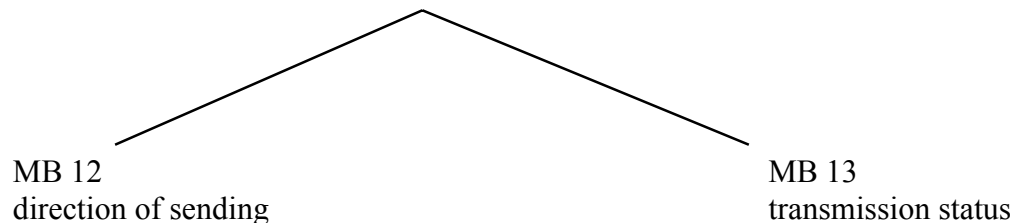
Return messages of the TELE-network device in the command byte

- 10h: Modem connection with TELE-LINK (PLC-TELE or PG-TELE) exists
- 20h: The number of the desired subscriber entry is invalid
- 30h: Modem connection does not exist anymore, e.g. after hanging up or if the partner has hung up
- 40h: Connect is not possible (probably because line is busy)
- 50h: The command to hang up could not be executed
- 60h: Modem connection with ASCII-subscriber does not exist.

8.8.2 Setup of the ASCII-TELE-flag

Example: MW 12 (can be divided into MB 12 and MB 13)

MW 12



Direction of sending

0100H in the flag word (absolutely 00 in the LOW-byte also with PLC-TELE in order to delete the status; otherwise, the TELE-LINK does not accept the command) → send the data module that was described in the communication DB. The number of the bytes that have to be sent can be found in the communication DB.

0200H The plc is ready to receive data. This means that the received lines are only written in the plc if this command is there. Only one line including CR is written. After that, TELE inputs into the command flag 0AH which means - 020AH. This means for the plc that data has been received. After this data has been processed, 0200H can be input again. If there are still lines in the TELE, these are sent to the plc. The following is then in the target DB:

DW: Number of the received bytes in KF-format
 DW: from here in KC the signs

Operating instructions Tele-Network

Transmission status

- 01h: command is ready without mistakes
- 02h: command is being executed, but you have to check for TIMEOUT, the command should be executed after 45 seconds
- 03h: source module does not exist or is too short
- 04h: target module does not exist or is too short
- 05h: mistake; the command has to be repeated
- 06h: configuration DM does not exist
- 07h: parameter fault
- 08h: the partner device is not an ASCII-subscriber

8.8.3 Setup of the communication data module at the ASCII-TELE

DW0: KC	=	data type of the source (at the moment, only DB possible) 'DB' data module 'EB' entry byte
DW1: KF	=	source DB number
DW2: KF	=	initial address of the source sector = StartDWNr
DW3: KF	=	number of words
DW4: KC	=	Data type of the target (at the moment only DB possible) 'DB' data module 'EB' entry byte
DW5: KF	=	target-DB number
DW6: KF	=	initial address of the target sector = StartDWNr
DW7: KF	=	number of words

8.8.4 Send data with the ASCII-option

The following criteria have to be fulfilled:
(the ASCII-subscriber is called "AS" in the following)

- The AS does not send 0AH as 1st sign to the plc
- All transmissions from the AS have to be finished with CR = 13dez
- TELE-Network device saves maximally 3200 signs from the ASCII-subscriber in the cache (also several lines)
- One line can be maximally 510 bytes long (including CR)

A communication flag word as well as a communication data module have to be arranged here (compare to PLC-TELE). The source area is the area that is sent to the AS. The AS on the other hand sends to the target area. It has to be noted that the target area marks the number of the received bytes in the first word. (note: bytes!) The TELE-LINK does not write the number of the received bytes in the configuration DB but in the 1st word of the target area. When sending from the plc to the AS, the number of the bytes that are to be send (not WORDS as with the PLC-TELE) is taken over from the configuration DM. For the status report the same values as with the PLC-TELE are valid.

Operating instructions Tele-Network

If you want to send data from the plc to an ASCII-subscriber or if you want to fetch data, you have to define a communication flag word, a communication data module and the ASCII-TELE-flag in the TELE-LINK. The communication flag word and the ASCII-TELE-flag always have to be an even number (0, 2, 4, 6, ..., 254).

In order to start the transmission and to call the subscriber 4, the plc now gives the following command to the communication flag word (f. ex. MW 10): 0104h.

The remaining data and the actual communication are executed according to the scheme defined in the DM.

Please note, that you have selected the pg-mux-mode for **pg-mux** (see cap. 7.7.3).

8.9 messages of the plc sending to a pager

***** Attention *****

Switch PAGER-operation only to „YES“ when you have set and proofed all parameters.

With the PAGER-option you can send from the plc, in the plc defined data, the actual build of flags and DB to a pager. This option is possible in all TELE-Network-Devices with Software Version 4.00 or bigger with S5/S7-Firmware.

You have to look for the specialities of the different pagers. Following pager are supported with this option:

- SMS to Handy
- Cityruf (alphanumeric)
- Scall
- Skyper
- Quix (alphanumeric)
- ANP Belgacom (numeric and alphanumeric)

For your further information it exists for the sms kommunication different protocolls to the sms data server. In this option are following protocolls implemented: TAP and UCP. The TAP is for D1 and E-Plus. UCP is for D2. Befor you give the TELE-Network-device the command to start this operation, you have to select in the COM-DB the right pager type. In the subscriber database of the TELE-device you have to enter the telefonnumber of the data server of the pager.

numbers for germany

<i>pager type</i>	<i>Number</i>	<i>protocoll</i>	<i>maximum length of the sending data in characters</i>
D1 SMS	01712521002	TAP	160
D2 SMS	01722278025	UCP	160
E-Plus SMS	01771167	TAP	160
Cityruf number	01691	special	80
Scall number	01696nnnnnnn (*)	special	15 numeric
Quix (aphanumeric)	016591	special	80
Quix (Numeric)	016592	special	15
Skyper (aphanumeric)	01692nnnnnnn (*)	special	80
ANP Belgacom	0452500001	special	120 / alpha

(*) n = number of the pager

Please remark, that you have to edit the telefon number of the SCALL and SKYPER complete in the subscriber database of the TELE-device. For the other pagers you have to edit the telefon number in the PAGER-COM-DB.

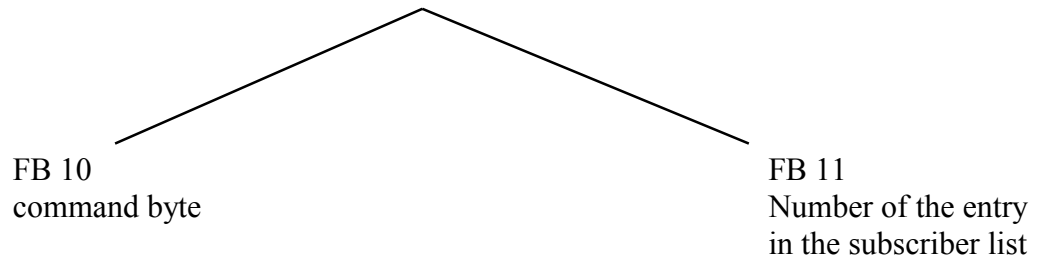
Please note, if you have problems with sending some sms, proefe at first the telefon number of the central dialing number of your provider. It is possible, that this number has been changed. Please contact your dealer of this device, or the technical hotline of this device.

8.9.1 Setup of the communication word between plc and TELE-Network

With each option that demands a common communication flag word between the plc and the TELE-Network device, the flag word is set up according to the following scheme and is read by the TELE-Network device every 5 seconds.

Example: MW10 (can be divided into MB10 and MB11)

MW 10



Reference card for the command byte

01h: Start dialling process to the pager

Return messages of the TELE-network device in the command byte

20h: The number of the desired subscriber entry is invalid or the subscriber is empty

30h: a DB is too small, or doesn't exist, or has wrong parameters e.g. the wrong pager number

40h: Connect is not possible (probably because line is busy)

50h: The command to hang up 02h could not be executed

60h: Modem connection with ASCII-subscriber does exist.

70h: A failure is occurred by sending the sms-message

80h: Sms-message is sent correctly

90h: Command doesn't exist, or is not supported with this option

8.9.2 Setup of the communication data module for S5 for PAGER

The minimum length of the PAGER-COM-DB is 142 words (DW 0 to DW141)

DW 0:

Coding of the pager types: Format KF

D1 or E-Plus SMS with TAP	0
D2 SMS with UCP	1
Cityruf alphanumeric	2
Scall numeric	3
Quix alphanumeric	4
Quix numeric	5
Skyper alphanumeric	6
ANP Belgacom	7

This table of coding the pager types is growing for the future for the different pager types for foreign countries

DW 1 - DW 10:

Number for the first pager in KC with an 'E' at the end. There are only maximum 19 characters possible. For example 0171992282E.

Is the first character an 'E', so is the following number not guilty. A special opportunity for SMS pager is, that you can with one call send the message to more than on sms-pager. This is only for SMS-Pager, for the other one there is no possibility. If you use the Skyper or Scall where you have edit the pager number in the subscriber database, there is no look for the pager number in this DB.

***** Attention: This entry must exist in every case! *****

DW 11 - DW 20:

Number of the second SMS-PAGER (only when 1 or 0 in DW0)

DW 21 - DW 30:

Number of the third SMS-PAGER (only when 1 or 0 in DW0)

DW 31 - DW 40:

Number of the fourth SMS-PAGER (only when 1 or 0 in DW0)

DW 41 - DW 50:

Number of the fifth SMS-PAGER (only when 1 or 0 in DW0)

DW 51 - DW59:

not used

DW60 - DW141:

Text of the message. Only maximum 160 characters.

Pay attention, that when you use pager with numeric data. For e. g. Scall, Quix and so on. This numeric data is only from 20h to 7Fh ascii code available. All the other data is unguilty. The end of the data is a 00h in this DB. You have to look for the different maximum data characters for the different pagers. In this case, your message is sent not correctly. Maximal data characters are 160 characters.

8.9.3 Setup of the communication data module for S7 for PAGER

Adresse	Name	Typ	Anfangswert	Kommentar
0.0		STRUCT		
+0.0	Pagertyp	INT	0	
+2.0	PagerNr1	ARRAY[1..20]	'E'	
+1.0		CHAR		
+22.0	PagerNr2	ARRAY[1..20]	'E'	
+1.0		CHAR		
+42.0	PagerNr3	ARRAY[1..20]	'E'	
+1.0		CHAR		
+62.0	PagerNr4	ARRAY[1..20]	'E'	
+1.0		CHAR		
+82.0	PagerNr5	ARRAY[1..20]	'E'	
+1.0		CHAR		
+102.0	Frei	ARRAY[1..16]		
+1.0		CHAR		
+118.0	Text	STRING[160]	'Dies ist ein Pagertesttext'	
+280.0	TextEnde	INT	0	
=282.0		END_STRUCT		

Pay attention, that you finish the message text at the end with a 0. The type string is used for the text, because is so easier to edit. TELE-LINK / PROF need for the end detection a 00h.

Please note, that for this option the PG-MUX-Mode must be PG-MUX (see cap.7.7.3)

8.9.4 Sending a message to a PAGER

After you have correctly defined the PAGER-COM-DB in the plc, now you can give the TELE-Network-device the commnd for dial. For this you write into the communication flag word the 01h for dialing. The TELE-Network-device gives the plc after sending the message the status back. The status for sending ok or sending with mistake.

8.10 Communication with a mailbox (modem)

With this option now you can communicate with the tele-network-device from your pg/pc above the telefon line into a mailbox (esp. the modem). You only have to configure your terminal programm in your pg/pc with following parameters:

Baudrate 19200 Baud, 8 data-bit, 1 stop-bit, no parity

Handshakes like following:

TELE-LINK:	XON/XOFF on TTY-PG-Connector
TELE-BOOK and TELE-PROFessional:	RTS/CTS on V24-Connctor

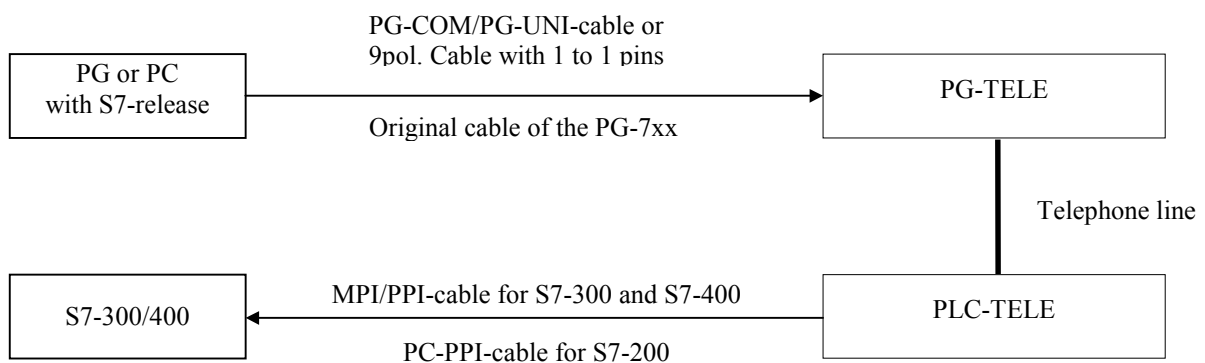
At next, you select the subscriber you want to dial, but now you need this baudrate like **M144** or **M96** and so on. After the connect you can work with your pc and your terminal programm, like the modem is build in in your pc.

8.11 Communication with an S7-PLC

This device, who is on the plc side, must be configured in the menu item Konfiguration Device Type as PLC-S7 300/400. If you use the S7-200, you just have to change the device type as PLC-S7 200 9K6 or PLC-S7 200 19K2. For the PG-TELE you don't have to change anything, because the PG-TELE recognices the plc tyoe, wether its S5 or S7.

Caution: If you are using a S7-200 PLC, you should activate in the PG-TELE in the menu-item Speciall the "S7-200 ON" item. After connecting the both modems together, you should do this. Now you can work with the programmingtool MicroWin. It is better for the communication, you configure your device driver PPI-Cable with the modemconnection. With this feature, you get longer timeouts. For the modem device you can use the **Bausch Induline IL 14K4** with the normal standard parameters. The pc is connected to the PG-TELE PG-V24-port with a straight cable 1to1 pin.

Connection scheme:



The transmission rate is set to **19200** Baud with this option. You can connect to the TELE-Network device that is set as PG-TELE with your Siemens-PG or with a compatible PC via the V.24 or V.24/TTY.

CAUTION:

A connection from the Siemens-PG via the built-in MPI-interface is NOT possible. You had to install the PC-Adapter with 19200 Baud and Com1 or Com2.

The TELE-Network device that is configured as PLC-TELE is connected to the S7-control S7-300 via a so-called MPI/PPI-cable. This cable realises the transformation of R232 (V.24) to the MPI-interface of the plc.

The TELE-Network device that is configured as PLC-TELE is connected to the S7-control S7-200 via a so-called PC-PPI-cable. This cable realises the transformation of R232 (V.24) to the PPI-interface of the plc.

9 **Possibility of Programming of Siemens Ops**

With the TELE-Network devices with a software version bigger than 4.41 it is possible to programm Siemens Ops. For this, you have to do following:

9.1 **Programming with ProTool lite:**

With this, you can programm the OP7/17 directly with ProTool lite. You have to connect the programming port of the OP with the PG-Port of the PLC-TELE. On the PG-TELE side, you connect your PC on the same way as you want to programm the plc. After connecting the two modems via telefon line, you restart your OP for beginning the transfer, after this, you change to the menu item Special on your PG-TELE and activate the ProTool 7/17. Now you can transfer your project to your OP. After programming your OP, you can end the ProTool-Option with pressing the ← - key. Now, your TELE-Network device is in the standard programming mode, for example for the S5 or the S7.

By this way, you can also programm the C7, too.

9.2 **Programming with ProTool:**

For programming the bigger Ops, like OP27 / 37, you can't use the software ProTool lite. For this OPs you use ProTool. This OPs can be programmed only via MPI-Protocoll, because, the standart protocoll of programming is not modem like. For this, you must configure following:

- Connection of PLC-TELE with MPI/PPI-cable and MPI-Netz-Adapter to the OP
- Change devicetyp of PLC-TELE to PLC-S7 300/400
- The ProTool-Software must be installed in the simatic manager
- In your project or the OP must be activated the MPI-Interface for transfer

After connect of the telefon line, you restart the OP for the transfer mode. Now you start your transfer with your ProTool-Software via PC-Adapter and 19200 Baud. After the OP is programmed, you disconnect the telefon line and your OP is ready to work.

This Method works with S5 OPs, too. But you need for this way the simatic manager for Step 7. This is only way to programm OPs.

10 Controlling of the TELE-Network-Devices with TAPI-Interface

The Tele-Network-Devices can be controlled with the TAPI-Interface with MS Outlook for example. So you can dial or hang up, without using the keyboard of the tele-network-devices. So, if you have edited more telefon numbers, for example 120, so you don't have the time, to pull down until, you got your telefon entry number 120. So you can controll this with a comfortable software.

You need following configuration:

You connect your PC with the second COM-port with a so-called "Zero-Modem-cable" (it's a cable not 1to1, you have twisted pairs, so 2 to 3, 3 to 2, and so on) to the plc-V24-port of the tele-professional.

After this, you install in your pc a standart modem for this com-port.

Please note following:

TAPI-Controll to TELE-Professional: Dial mode (ton, impulse), count of rings, busy identify you must configure it on the Tele-Professional. (It was testet with Outlook 2000)

1. Connection to plc-v24-port of Device Baudrate: 9600,8,N,1 without Handshake!
2. choose standart analog modem (with Win 9x or NT please first install, then choose)
3. In the telefon number (MS Outlook: Contacts) you can with following symbols configure following functions:

- ! => Pin number is following, but it is only a numeric pin allowed, you can't transfer ascci-chars with the TAPI-function
- (=> Baudrate is following
 - (12 means 1200 Baud
 - (24 means 2400 Baud
 - (48 means 4800 Baud
 - (96 means 9600 Baud
 - (144 means 14400 Baud (the maximum of the modem)
-) => Callback with the RRV-number (max. 9 figures)

For example:

Dial the number 00418762112 with PIN:45671, baudrate 4800 and call back from swiss to germany:

The right entry is: 00418762112!45671(48)0049

The placement of PIN, call back option or baudrate don't care, it is only iportant, that the telefon number is at first.

11 Communication with TELE-SWITCH

11.1 Function of the TELE-SWITCH as MUX (compatible with Siemens-MUX 757)

All DIP switches are turned to the following adjustment corresponding to the slave number:

DIP 1	DIP 2	meaning
OFF	OFF	channel 1 to 8 corresponding to slave 1 to 8
ON	OFF	channel 1 to 8 corresponding to slave 9 to 16
OFF	ON	channel 1 to 8 corresponding to slave 17 to 24
ON	ON	channel 1 to 8 corresponding to slave 25 to 30

The remaining DIP switches are all turned OFF. For the calling, the usual PG-BUS-calling is used.

11.2 Function as TELE-SWITCH

DIP 3 has to be turned ON, DIP 1 and DIP 2 according to the above table. The TELE-Network device supports with this operation mode only the slave numbers 1 to 16.

The TELE-SWITCH can be operated at the PLC-or PG-socket of a TELE-Network device that is configured as PLC-TELE. In the PG-TELE, the following adjustments have to be made for calling a channel:

Menu item: TELE-SWITCH

1st line: TELE-SWITCH

2nd line: xx to ChaNr: yy xx = PG or PLC (with cursor-up/down key)
 yy = Channel 00 (fed-through mode finished)
 yy = Channel 01 to 16 (call corresponding slave number)

After this input, the question “Switch? YES/NO“ is displayed:

- YES Input is taken over, channel is called
- NO Input is dismissed, present condition remains

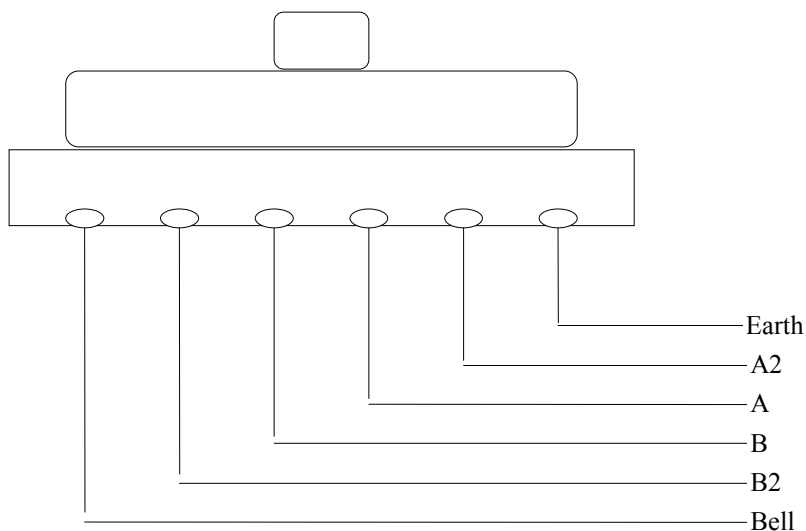
If there is a call, then it is reported whether the call or the transformation respectively were successful or not. After connection clear-down, the SWITCH is automatically deactivated.

11.3 Technical data of the TELE-SWITCH

Supply Voltage	24V DC
(Power) input	12 VA
Functional control	LED display for the channel calling
Working temperature	5 to 55 degree Celsius
Dimensions	Metal casing: 325 x 182 x 42 mm

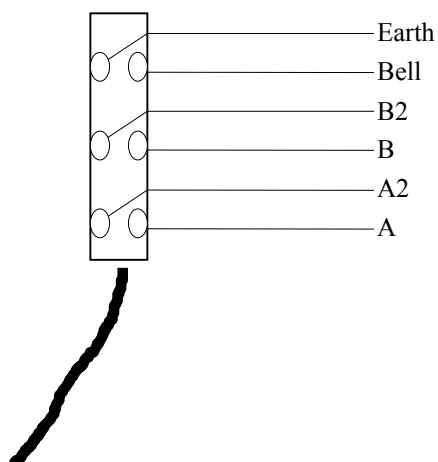
12 Assignment of the normal telephone cord

12.1 Side of the modem



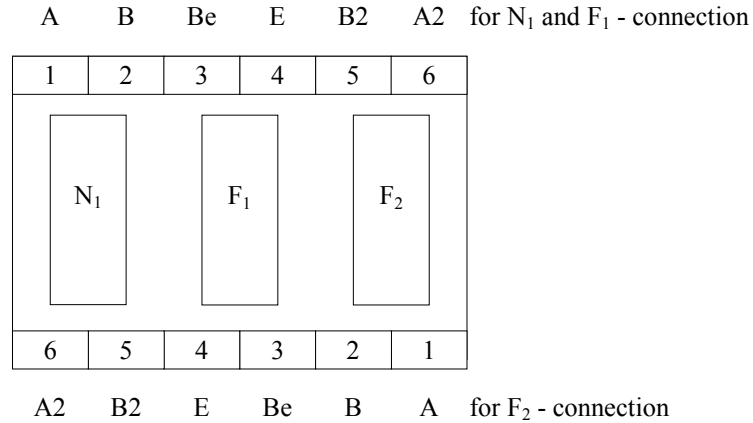
View from above on the western plug, gold contacts facing down, 6pin type. In this way, the assignment of the western socket in the modem is visible. With the 4pin type, the two pins at either end are left out.

12.2 TAE-plug



View from above on the TAE-plug (from the front).

13 Assignment of the connection pins of the TAE-SOCKET



Connections A + B are absolutely sufficient for a modem connection only, without telephones.

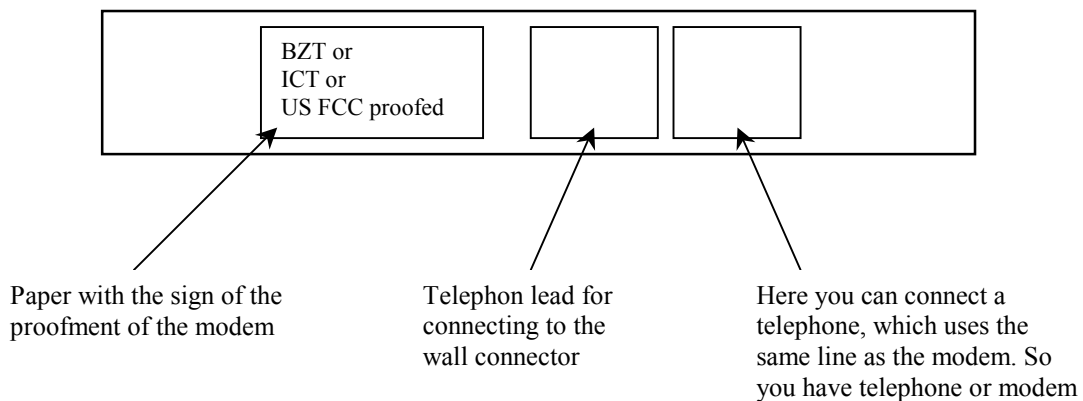
CAUTION:

With pulse dialling and calling the line with earthing key, the connection E additionally has to be connect to frame at the telephone installation.

14 Connection of the telephone lead

The telephone lead has to be connected to the left connection port, called phone. Here you see a picture from the backside of the network device.

Picture with the two connetors, the left one is the right:



15 Technical Data of the TELE-Network devices

Supply Voltage	24V/DC input range 18-36V (only TELE-LINK and TELE-PROFessional) Caution: The supplied 24V are at the user's disposal at the PG-socket without any restrictions.
	Input range 12 - 36 V (only TELE-BOOK)
Input	3VA 5VA (with TELE-PROFessional)
Functional control	voltage- and watchdog supervision
Working temperature	5 to 55 degree Celsius
Dimensions	metal casing: 280 x 170 x 55 mm (TELE-LINK and TELE-PROFessional) 233 x 162 x 39 mm (TELE-BOOK)
AG-interface	TELE-LINK: TTY/20mA current loop AG-TELE active; plc-control passive TELE-BOOK: V24 completely occupied TELE-PROF: TTY/20mA current loop AG-TELE active, plc-control passive or V24 completely occupied
PG-interface	TELE-LINK: TTY/20mA current loop 100 % mechanically and electrically compatible TELE-BOOK: TTY/20mA current loop 100 % mechanically and electrically compatible or V24 with 1to1 cable from the PC TELE-PROF: TTY/20mA current loop 100% mechanically and electrically compatible or V24 with 1to1 cable form the PC
Modem (not tele-book)	33600 HIGH-SPEED, V42/BIS NMP5 with BZT-admission (standard) western socket at the device; a provided cable allows connection to the TAE-N-socket of the Telekom

16 Plc-types

The TELE-Network device can be used with the following plc-controls:

Siemens:

S5-90 U
 S5-95 U
 S5-100 U
 S5-90 U
 S5-115 U + F
 S5-135 U
 S5-155 U + H

S7-200
 S7-300
 S7-400

+ H1-Option (only with S5-TELE-devices)
 + L1-Option (only with S5-TELE-devices)
 + L2-Option (only with S5-TELE-devices)
 + FAX-Option
 + SPS-Option
 + ASCII-Option (only with S5-TELE-devices)

Bosch:

CL200
 CL300
 CL400
 CL500

AEG:

A 120
 A 250

Mitsubishi:

FX-Series
 A-Series

ALLEN Bradley:

SLC 500 DF1-Protocoll + DH 485

Klöckner Moeller:

PS3 controls
 PS4 controls (V24)

Operating instructions Tele-Network

Selectron:

PMC 20

GE Fanuc

Pilz PSS3xxx

Telemecanique Premium TSX57

Please note that for each of the mentioned plc-types, a special TELE-Network device has to be used. With the exception of Siemens S5 + S7, there is no possibility to realise two different plc-types in one TELE-device at the moment.

17 Peculiarities of special plc-types

17.1 Allen Bradley-TELE

The connection between tele-network-device and pc is a V24/TTY-interface-cable or a V24 9pol. 1to1 cable.

Either the message "AB-PLC-TELE" or the message "AB-PG-TELE" is displayed. The DF1-protocoll is supported in the full duplex mode without hardware handshake. This means that hardware shake should not (!) be activated at the PC-software since then an online is not possible anymore.

The following Baud rates are supported:

- 1200
- 2400
- 4800
- 9600
- 19200 respectively with even (E) or none (N) parity

The PLC-TELE constantly checks the connection to the plc at the current interface to the plc and automatically determines the correct Baud rate. This process does not take place in the active "plc-mode".

Peculiarity:

It is shown in the 2nd line of the menu item "Messages" whether the plc is connected or respectively whether the communication to the plc is possible.

- OFFLINE = plc does not respond or it is not connected or remote device is PIN-protected and Login has not yet been made.
- ONLINE xxxxx,y it is shown that the plc does respond, it is therefore ONLINE and the Baud rate of the plc

xxxx = Baud rate	y = parity
1200	E = even
2400	N = none
4800	
9600	
19200	

The user can infer from this status the adjustment of the interfaces for the plc-software.

For the operation of the programming software, the menu item "DF1-mode ON" has to be used. Then the display changes to:

"plc-mode is"
"active..."

Now you can work with the plc-software. Press any key in order to leave this operation. Now the TELE-LINK can be operated. This means, however, that if you press this key while a PC-plc-communication is in process, the running communication is disrupted.

Operating instructions Tele-Network

Restriction:

- The supervision of the duration of the connection does not take place.
- MUX-operation is not possible
- Digital I/O is not yet supported

17.1.1 The connecting cable

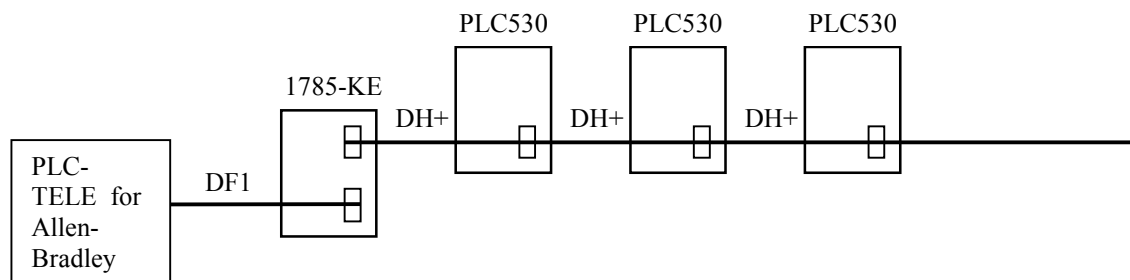
The RS232-connection (9pin plug) of the plc is used, PIN-assignment the same as at the PC. Since it is worked without handshake, a PG-UNI-cable can either be used at the TELE-AG-socket with corresponding GENDER-CHANGER or it can be connected at the TELE-PG-socket.

Please note when connecting to the PG-socket:

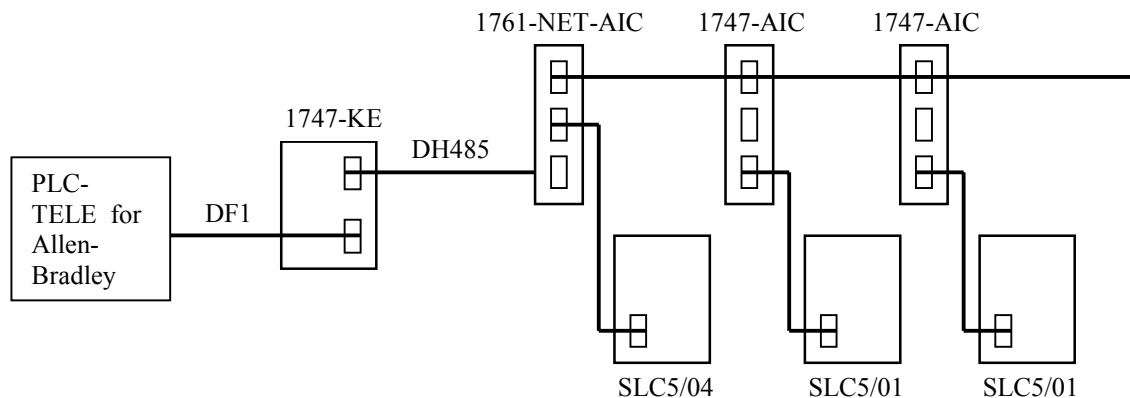
If there is no modem connection, the standard interface is used.

In the menu “configuration → standard connection“, the connection that can be used after another connection set-up as a standard for the communication can be selected at the PLC-TELE.

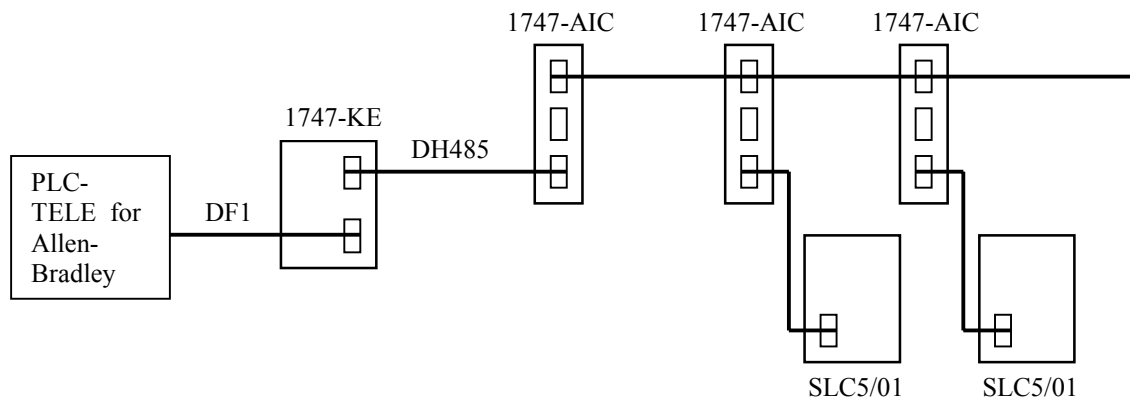
17.1.2 Examples for the connection of Allen-Bradley-PLC's



or



or



17.2 Klöckner Moeller-TELE

17.2.1 Plc-Types

The Klöckner Moeller-TELE-Network supports the following Klöckner Moeller-controls:

- PS3
- PS4

this means all controls with **SUCOM A-protocol** (has to be noted for the PC- programming-software). The Cables for the special plc-type can be variable.

17.2.2 Timeout of the Communication

If the file **COM.INI** does not exist, you have to create it with the following entries (stick to the correct spelling):

- [COM-interface parameter]
- Baud rate=9600
- Receive Timeout=10

10 means 10 seconds and can be changed if necessary. Please note that these entries are different if you use another language. In this case, you have to read the user's manual.

Operating instructions Tele-Network

17.2.3 Connecting cable to the PC:

At the PC, DSR and DTR have to be connected:

- 9pin: Bridge 4 - 6
- 25pin: Bridge 6 - 20

At the side of the plc: TELE-PROFessional, TELE-Book or TELE-LINK with S7-adapter, and the PC-plc-connecting cable to the corresponding plc.

17.3 Mitsubishi-TELE

17.3.1 PLC-Types

The Mitsubishi-TELE provides following PLC-devices:

- FX
- A-Serie

17.3.2 Interface-Cable to the PC

You have to connect at the pc following pin, DTR and DSR, RTS and CTS:

- 9pol: Connection 4 – 6 and 7 – 8
- 25pol: Connection 6 – 8 and 4 – 5

17.3.3 Interface-Cable to the PLC

From the PLC-TELE TELE-Professional, TELE-BOOK connector PLC V24, TELE-LINK with V24-Changer to the PLC with the SC-09-cable from Mitsubishi.

17.3.4 Medoc-Software

The function of programming the plc above telephone line is being tested with following software:

MELSEC Medoc+ V2.32 for Windows.

It is possible, that you can get problems with an older version of this software, because there is a software bug inside the pg-software. So the pg sends data to the plc and doesn't wait for the answer of the plc, so it is possible, the pg-software get an answer of a question, that is just now not guilty.

So you get a failure.

17.4 Jetter-PLC

If you want to programm a jetter plc, you have to leave the s5-mode. So you use the direct mode.

The right parameters for the communication protocol for destination-com and source-com you have to read your jetter manual.

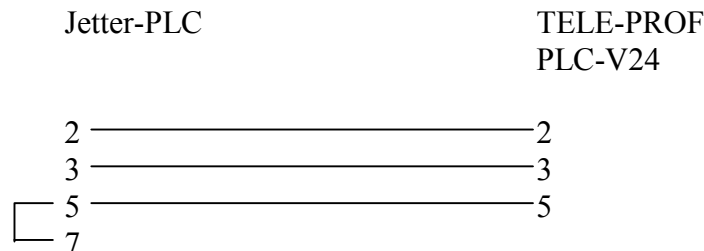
17.4.1 Interface-Cable to the PC

You can use following different types of cable for the connection from pc to pg-tele:

- 9pins 1to1 from PC-V24 (Com1 or Com2) to PG-V24-Connector of the tele-network-device
- Interface-cable from PC-V24 (Com1 or Com2) to PG-TTY-Connector of the tele-network-device

17.4.2 Interface-Cable to the PLC

The cable between the plc-tele and jetter-plc has following pinning:



18 Pin assignment of the TELE-Network devices

18.1 Pin assignment TELE-LINK

18.1.1 Pin assignment for the PG-socket (TTY):

PIN 1:	M _{ext}
PIN 2:	TTY IN-
PIN 3:	+ 5V
PIN 4:	+ 24V
PIN 5:	ground
PIN 6:	TTY OUT+
PIN 7:	TTY OUT-
PIN 8:	M _{ext}
PIN 9:	TTY IN+
PIN 10:	ground 24V
PIN 11:	20mA for sender
PIN 12:	ground
PIN 13:	20mA for receiver
PIN 14:	+ 5V
PIN 15:	ground

18.1.2 PIN assignment for the PLC-socket (TTY):

PIN 1:	M _{ext}
PIN 2:	TTY OUT-
PIN 3:	N.C.
PIN 4:	N.C.
PIN 5:	N.C.
PIN 6:	TTY IN+
PIN 7:	ground (TTY IN-)
PIN 8:	M _{ext}
PIN 9:	20mA for receiver (TTY OUT+)
PIN 10:	N.C.
PIN 11:	N.C.
PIN 12:	N.C.
PIN 13:	N.C.
PIN 14:	N.C.
PIN 15:	N.C.

Therefore, a connection to a TTY-compatible interface via a 15pin 1to1 cable is possible.

18.2 PIN assignment TELE-BOOK

18.2.1 PIN assignment for the PG-socket (TTY):

PIN 1:	M _{ext}
PIN 2:	TTY IN-
PIN 3:	+ 5V
PIN 4:	+ 24V
PIN 5:	ground
PIN 6:	TTY OUT+
PIN 7:	TTY OUT-
PIN 8:	M _{ext}
PIN 9:	TTY IN+
PIN 10:	ground 24V
PIN 11:	20mA for sender
PIN 12:	ground
PIN 13:	20mA for receiver
PIN 14:	+ 5V
PIN 15:	ground

18.2.2 PIN assignment for the PG-socket (V24):

PIN 1:	DCD	(data carrier detect)
PIN 2:	TxD	(transmit data)
PIN 3:	RxD	(receive data)
PIN 4:	DSR	(data set ready)
PIN 5:	GND	(ground)
PIN 6:	DTR	(data terminal ready)
PIN 7:	CTS	(clear to send)
PIN 8:	RTS	(request to send)
PIN 9:	RI	(ring indicator)

18.2.3 PIN assignment for the PLC-socket (V24):

PIN 1:	N.C.	(no connection)
PIN 2:	RxD	(receive data)
PIN 3:	TxD	(transmit data)
PIN 4:	DTR	(data terminal ready)
PIN 5:	GND	(ground)
PIN 6:	DSR	(data set ready)
PIN 7:	RTS	(request to send)
PIN 8:	CTS	(clear to send)
PIN 9:	N.C.	

18.3 Pin assignment for TELE-PROFessional

18.3.1 Pin assignment the PG-socket (TTY):

PIN 1:	M _{ext}
PIN 2:	TTY IN-
PIN 3:	+ 5V
PIN 4:	+ 24V
PIN 5:	ground
PIN 6:	TTY OUT+
PIN 7:	TTY OUT-
PIN 8:	M _{ext}
PIN 9:	TTY IN+
PIN 10:	ground 24V
PIN 11:	20mA for sender
PIN 12:	ground
PIN 13:	20mA for receiver
PIN 14:	+ 5V
PIN 15:	ground

18.3.2 PIN assignment for the PG-socket (V24):

PIN 1:	DCD	(data carrier detect)
PIN 2:	TxD	(transmit data)
PIN 3:	RxD	(receive data)
PIN 4:	DSR	(data set ready)
PIN 5:	GND	(ground)
PIN 6:	DTR	(data terminal ready)
PIN 7:	CTS	(clear to send)
PIN 8:	RTS	(request to send)
PIN 9:	RI	(ring indicator)

18.3.3 PIN assignment for the PLC-socket (TTY):

PIN 1:	M _{ext}
PIN 2:	TTY IN-
PIN 3:	N.C.
PIN 4:	N.C.
PIN 5:	N.C.
PIN 6:	TTY OUT+
PIN 7:	ground (TTY OUT-)
PIN 8:	M _{ext}
PIN 9:	20mA for receiver (TTY OUT+)
PIN 10:	N.C.
PIN 11:	N.C.
PIN 12:	N.C.
PIN 13:	N.C.
PIN 14:	N.C.
PIN 15:	N.C.

Therefore, a connection to a TTY-compatible interface via a 15pin 1to1 cable is possible.

18.3.4 PIN assignment for the PLC-socket (V24):

PIN 1:	N.C.	(no connection)
PIN 2:	RxD	(receive data)
PIN 3:	TxD	(transmit data)
PIN 4:	DTR	(data terminal ready)
PIN 5:	GND	(ground)
PIN 6:	DSR	(data set ready)
PIN 7:	RTS	(request to send)
PIN 8:	CTS	(clear to send)
PIN 9:	N.C.	

18.3.5 PIN assignment for the connection of the printer (function optional):

PIN 1:	strobe\	
PIN 2:	D0	(data line 0)
PIN 3:	D1	(data line 1)
PIN 4:	D2	(data line 2)
PIN 5:	D3	(data line 3)
PIN 6:	D4	(data line 4)
PIN 7:	D5	(data line 5)
PIN 8:	D6	(data line 6)
PIN 9:	D7	(data line 7)
PIN 10:	ACK\	(received data from printer)
PIN 11:	BUSY	(printer is busy)
PIN 12:	POUT	(paper out)
PIN 13:	SELECT	(printer responds)
PIN 14:	AFEED\	(automatic paper feed)
PIN 15:	ERROR\	(printer error)
PIN 16:	RESET\	(reset printer)
PIN 17:	SELP\	(select printer)
PIN 18:		
to PIN 25:	Ground	(ground)

19 World-wide use of the TELE-LINK (modem connection)

Normally, TAE-socket and German cable can always be connected to the corresponding AB-line! In this way, there is a protection against the connection of other phones as well.

Country	Modem type	Cable
Abu Dhabi	USA	USA
Africa	USA	USA
Algeria	USA	USA
Argentina	USA	USA
Australia	USA	USA
Austria	G	A
Belgium	G	B
Brasilia	USA	USA
Canada	USA	USA
Chile	USA	USA
China	USA	USA with IDD-line ¹⁾
Columbia	USA	USA
Czech Republic	USA	USA
Denmark	G	DK
Dominikan Republic	USA	USA
Finland	G	G with TAE-socket ²⁾
France	G	F
Great Britain	USA	USA
Greece	G	G with TAE-socket
Hong Kong	USA	USA
Hungary	G	G with TAE-socket
India	USA	USA
Indonesia	USA	USA
Ireland	USA	USA
Israel	USA	USA
Island	USA	USA
Italy	G/USA	USA
Japan	USA	USA
Jemen	USA	USA
Kasachstan	USA	USA
Kenya	USA	USA
Korea	USA	USA
Kroatia	USA	USA
Latvia	USA	USA
Luxemburg	USA	USA
Malaysia	USA	USA
Marocco	USA	USA
Mexico	USA	USA
Moldawia	USA	USA
Netherlands	G	NL
New Zealand	USA	USA
Norway	G	G with TAE-socket ²⁾

CAUTION:

For a world-wide operation with the TELE-Network devices it is normally indispensable to use for each country in which the modem is used the modem corresponding to that country (e.g. for Great Britain a British modem, for Spain a Spanish modem and so on). Experience shows that this is not always possible. Then, the decision has to be made by the user himself/herself.

The above table that shows the usable modem types for several countries is put together according to practical experience. Therefore it is not guaranteed that the corresponding TELE-Network device has the admission for the operation in the country in question. Technically speaking, the US modem works in every country since it does not have the restrictions a German modem has (as for example bell voltage, bell frequency, charging pulse filter and so on).

20 Troubleshooting

Display /Condition	Cause
Display remains dark	Voltage connected? Voltage poled?
Modem does not dial	Telephone line connected? Telephoneline in the correct connector? Dialling method recognised correctly? Parameters for dialling set correctly? Is the phone installation released for data operation? Is the modem connected to an ANALOGUE connector?
Return call does not work	Are the parameter values for the return call set according to the instructions? PLC-TELE and PG-TELE correctly configured?
No connect by dialling	Uses your company a Call-By-Call-Provider? So it is possible,that the line is be multiplexed, and so the carrier ton is be interrupted. Baudrate correctly configured? For some countries it is better, not to dial with the maximum baudrate, it is better to select a baudrate less than 1 or 2 steps
Device doesn't lift up	Count of rings correctly configured? A - and B -line correctly connected? Telefon-lead corectly connected?
Hardly ONLINE to the plc	TELE-Network device is earthed correctly? Cable connection between AG-TELE and plc OK? Is the device really an AG-TELE? PG-MUX-Mode correctly configured?
No ONLINE to the plc	Cable connection between AG-TELE and plc OK? Is the device really an AG-TELE? Cable between plc and tele correct or damaged?

21 Additional software: TELE-Manager Lite

Programming of TELE-Network devices via computer

Requirements for the operation of the software:

- Windows 3.xx/Win9x/Win NT
- Mouse, Touchpad or other device

21.1 The way to work with the software

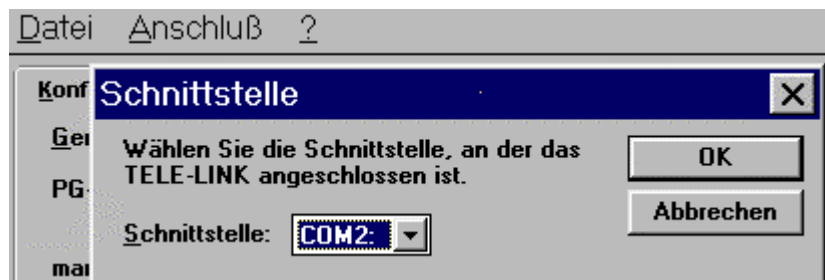
21.1.1 Configuration of the Port

Determine interface

1.1 select interface at the computer in *Anschluß*

Select interface, e.g. COM2:

Confirm with *OK*



21.1.2 Activating of the Tele-Manager lite in the Tele-Network-Device

Open the directory Firmware/Online with the mouse.

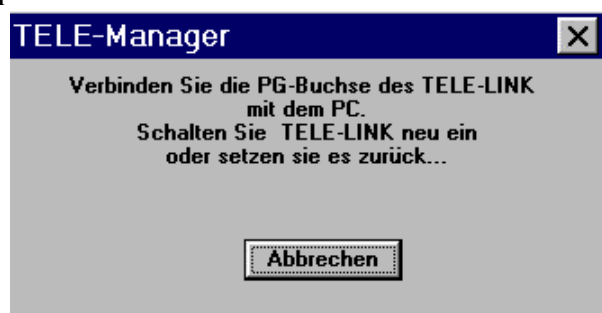
Connect TELE-LINK (PG-socket) with the Computer

Click on *Tele-Mang. im TELE-LINK aktivieren*
Set up connection to the computer, disconnect the power supply to the TELE-LINK and connect it again afterwards.

Wait until message: "Tele-Manager is successfully activated at TELE-LINK" appears.

Click on *Abbrechen*

Connection from the TELE-LINK to the computer is now made.



Attention: If you press the button above, the communication to the tele-network-device is interrupted, and the Tele-Manager is not installed jet.

Operating instructions Tele-Network

21.1.3 Read or Write the firmware

Read Firmware from the TELE-LINK

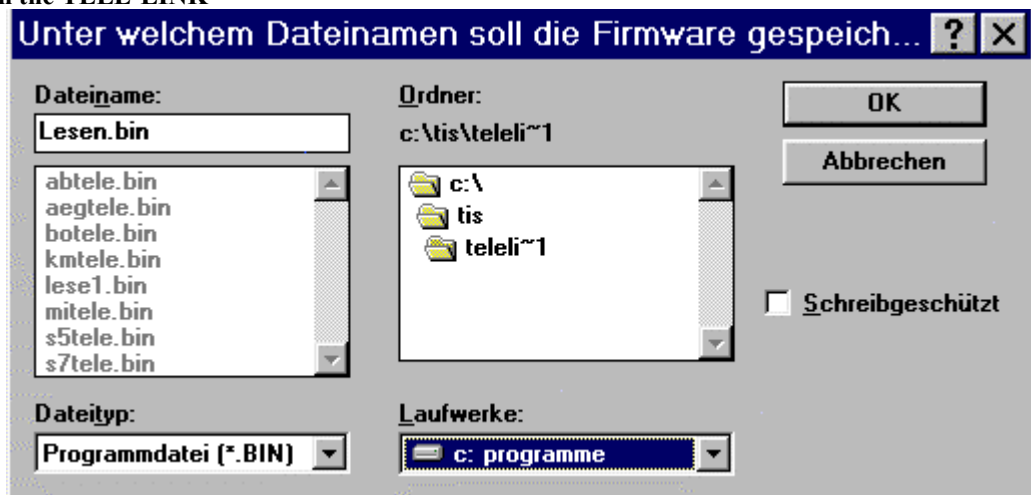
Click on Lese

Firmware vom TELE-LINK

Save TELE-LINK Firmware on the hard disk or disk under a file name that is determined by you.

Click on **OK**:

File is selected by the TELE-LINK and is saved under the file name determined by you.



This function is only available in the licensed version!

Transmission of the Firmware from the Computer to the TELE-LINK

Click on *Firmware wählen....*

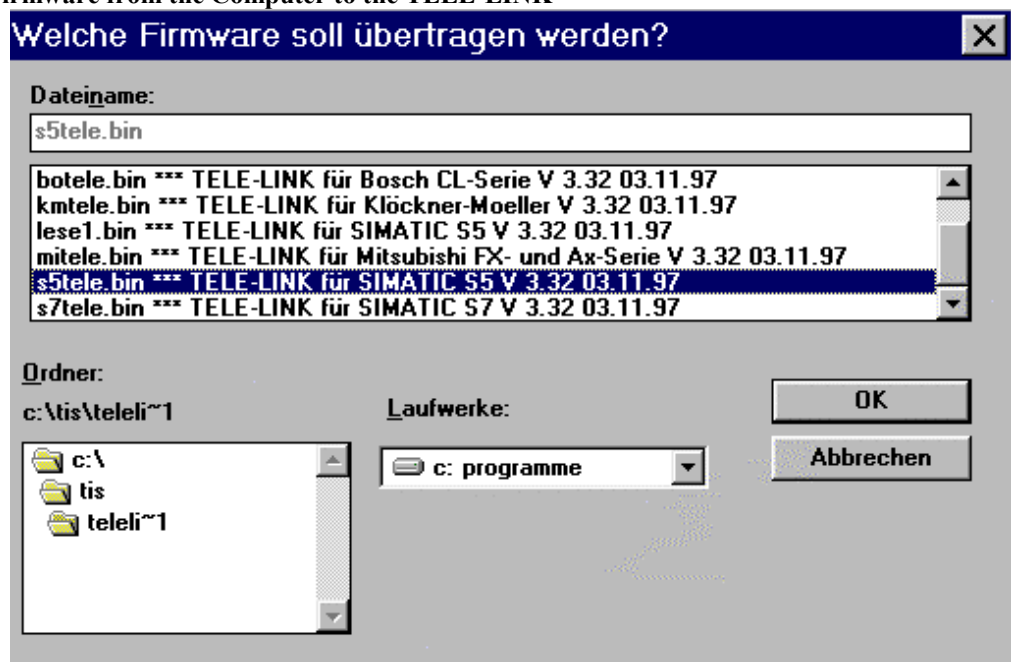
Select directory on the hard disk / disk of your computer and determine the <software>.bin that you want to transmit.

Confirm with **OK**

Click on Schreibe *Firmware ins TELE-LINK*

security request: "Really want to re-write firmware in TELE -LINK?" appears.

Confirm with yes: the Firmware in the TELE-LINK is overwritten (Did you save the "old" firmware?). If you input "no", the writing process is interrupted.



You can only replace in the light version an old firmware to a new firmware of the same plc-type

21.2 Description of the menu bar

Click on **Datei** and you can open a menu

Neu is without function

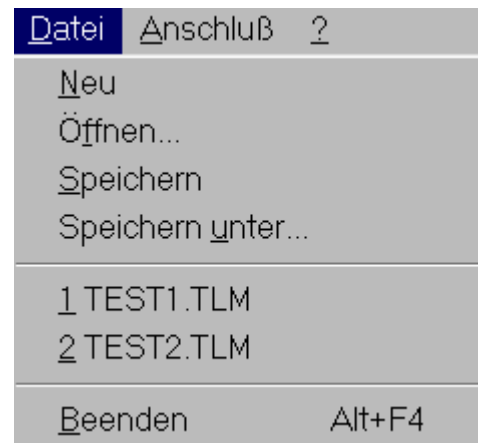
Öffnen... You open a directory on your hard disk/disk with the <Software>.t1m (e.g. Test1.t1m)

Speichern With save you can save the open and sometimes changed TELE- Manager Software

Speichern unter... You can give a new name to the open and Changed software and save it in a different directory

Beenden TELE-Manager is closed

Anschluß see interface



With **?**, you receive information on the product

With the purchase of the TELE-Manager the software is licensed for you.

A transmission to other persons causes the transmission of your registration data.

The transmission is illegal and prosecuted.

With the exception of the Online operation, the software is completely able to function.



21.3 Configuration

- Read from Tele-Link
- Transmit to Tele-Link
- Devicetyp

Adapt TELE-LINK individually

Lade von TELE-LINK...

the “existing“ data is selected and displayed

You can store the configuration with Datei, Speichern

You can change the data and save it under a different name in Datei, Speichern unter...

Click on Übertrage zum TELE-LINK... after the adjustments have been changed and if the transmission to the TELE-LINK should take place. Confirm with *yes* and click on Exit.

Under the option “device type“, you can select from among AG-TELE, PG-TELE and KOR/MUX-TELE

TELE-Manager - Unbenannt

Datei Anschluß ?

Konfiguration Teilnehmer Firmware / Online

Gerätename: XY 4711 Gerätetyp: AG-TELE

PG-MUX Mode: PG-MUX -C

manuelle Geschw.: 14400 Baud Übertrage zum TELE-LINK...

Wählverfahren: Ton Lade von TELE-LINK...

Nebenstelle: 0

Rückruf-Nr.: 0432147110

Abheben bei: 2 [0...5 Klingelzeichen]

Besetzterkennung der Telefonleitung

Auflegen hören: 0 [0...10 sec] max. Dauer: 0 [0...60 min]

Rückruf erlaubt max. Leerlauf: 0 [0...60 min]

21.4 Subscriber

- Read from Tele-Link
- Transmit to Tele-Link
- Cursor
- Change
- Insert
- Delete and Remove

Manage subscriber data

You can enter 197 different subscribers in one file name.

select data with **Lade von TELE-LINK...**

Save this data with **Datei, Speichern unter...**

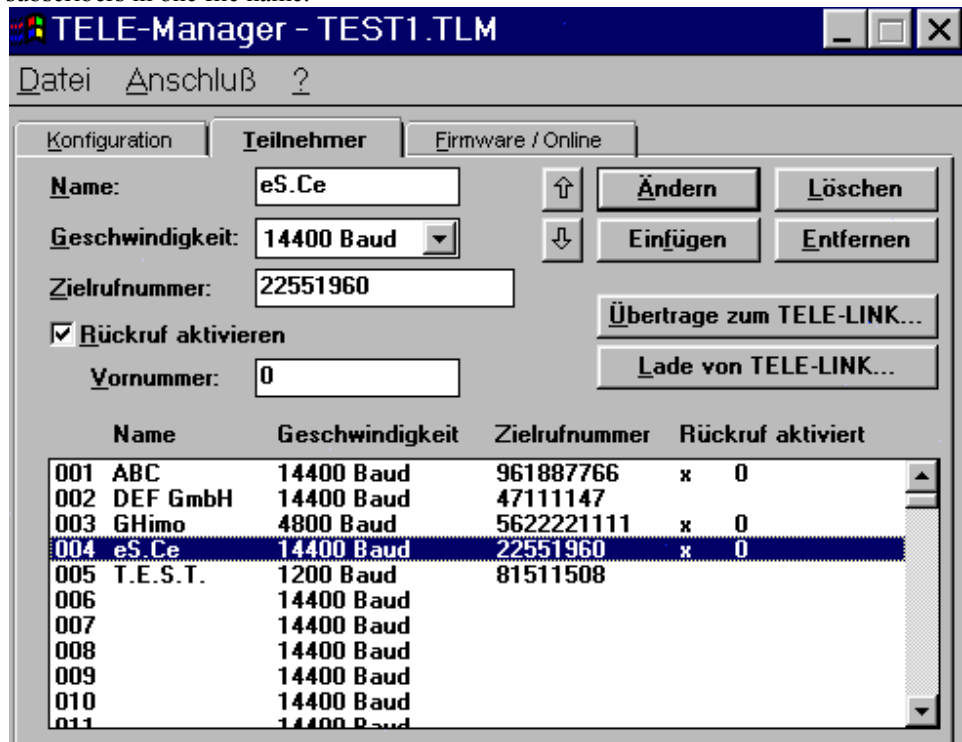
With **Übertrage zum TELE-LINK...**

you can transmit the subscriber list you have just made to the TELE-LINK. Confirm with **Yes** and click on **Exit**. The adjustment is then ready. Use the **Cursor keys** to move the marked telephone number to a different position.

Use **Ändern** to move the marked number one position further down.

Use **Einfügen** to insert the data that is displayed in the display background at the marked position.

Be careful with **Löschen** and **Entfernen** (Is file saved?).



21.5 Exit the programming of TELE-LINK

Call up Firmware/Online display background

Click on **TELE-Manager im TELE-LINK deaktivieren**

Click on **Exit**. Remove cable to the computer and to the power supply.

Operating instructions Tele-Network

room for notices:

room for notices: