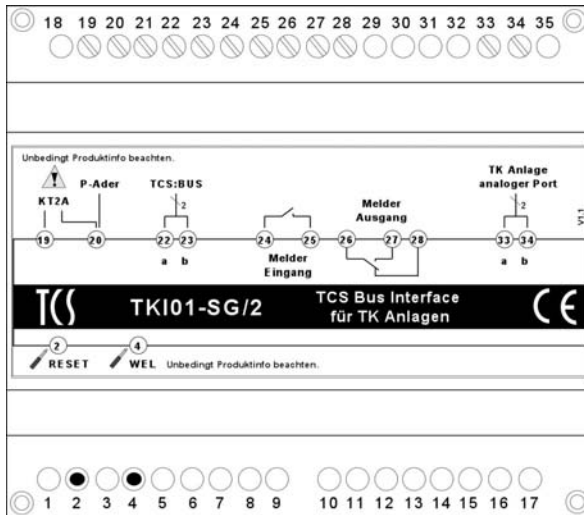




# Product Information

TCS:BUS Interface for PBX Systems

## TKI01-SG/2



## Introduction to the TK01-SG/2

This product information is intended to teach you quickly how to make reliable use of the TKI01-SG/2. A more detailed description of any additional functions can be ordered from

us. Call our hotline (0700) 82 74 68 54 or get the Programming Manual from the Internet: [www.tcs-germany.de](http://www.tcs-germany.de).

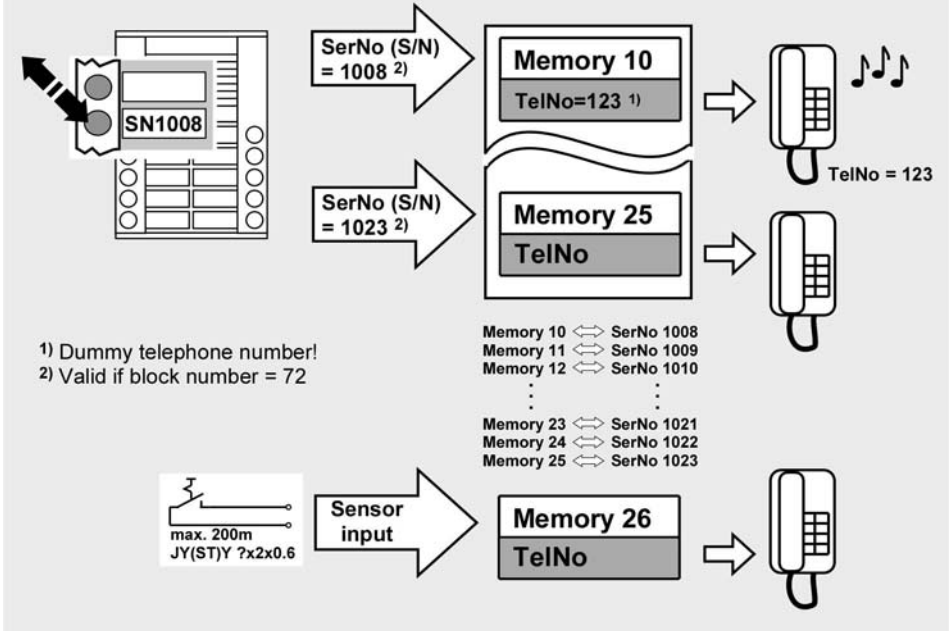
## Main Features at a Glance:

- Connects to the PBX like an analog phone set
- Connectors for TCS:BUS, a/b interface, control output and sensor input
- Power supply via NWV1000 or 24VDC system voltage of front-door station (P terminal of bus controller)
- Memory for 16-digit (max.) dial numbers in 16 memory positions
- Only tone dialling (DTMF) available
- Access to central office via a/b interface of the ISDN PBX
- Number for connection to an external line (1 or 2 digit) can be programmed
- Direct call to front-door stations and door-release and lighting controls
- Call to up to 3 flat-door stations of the door intercom system
- Bus relays energized by the calling party. Ten different bus relays may be accessed independently.
- Easy-to-understand audio signalling to represent system states
- Tamper proof against unauthorized external feeding of DTMF at the front-door station
- Programming of the interface is done via DTMF only. Therefore, the phone sets connected to your PBX must be ready to send DTMF during an internal connection (DTMF suffix dialling)
- 6 Module widths, for mounting rail to DIN EN 5002

## Legend

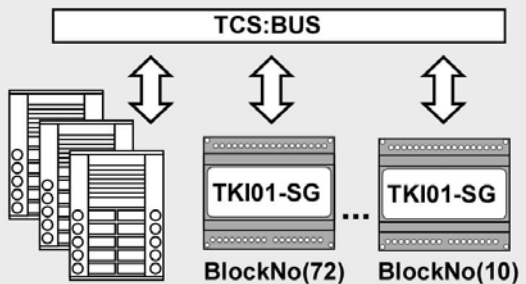


## Functional principle of TKI01-SG




### Note:

- (1) Several TKI01-SG or flat-door stations can be connected in parallel to the TCS:BUS.
- (2) Each TKI01-SG block number has to be set to a unique value. (Refer to command 18)



**DTMF functionality after call to TKI01-SG**



**1** **2** **3** **Select front-door station**  
1=AS0 / 2=AS1 / 3=AS2

**4** **5** **6** **Call a flat-door station**  
4=SerNoX / 5=SerNoY / 6=SerNoZ

**7** **Energize door release 1)**  
(Connection will be automatically disconnected.)

**8** **Energize light switch 1)**

**9** **Terminate call**

**0** **1...6** **0...9** **Select front-door station**  
by AS Address AS(10...63)


**\*** **\*** **Enable control output**

**\*** **0...9** **Energize optional BRE / TOER2**

**#** **Not used**

1) Not until after a front-door station has been selected!

**DTMF functionality after call from TKI01-SG**



**1** **2** **3** **Not used**

**4** **5** **6** **#** **Not used**

**7** **Energize door release**  
(Connection will be automatically disconnected.)

**8** **Energize light switch**

**9** **Terminate call**

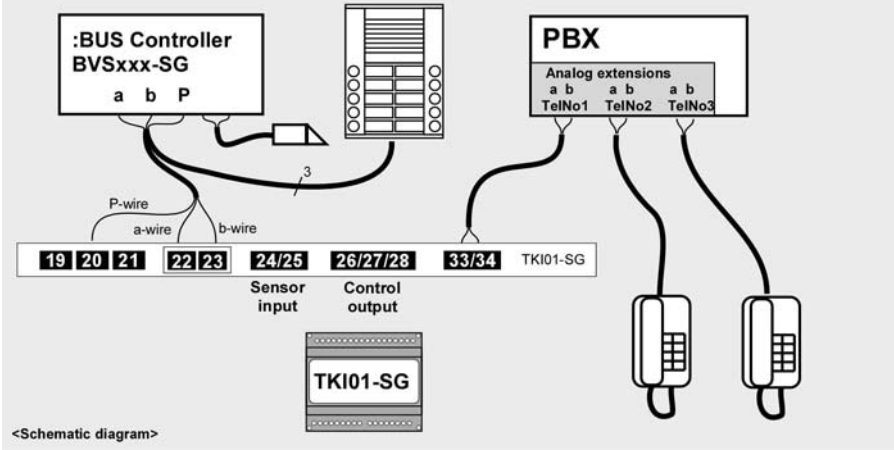
**0** **Retrieve DTMF code (Refer to command 36)**

**\*** **\*** **Enable control output**

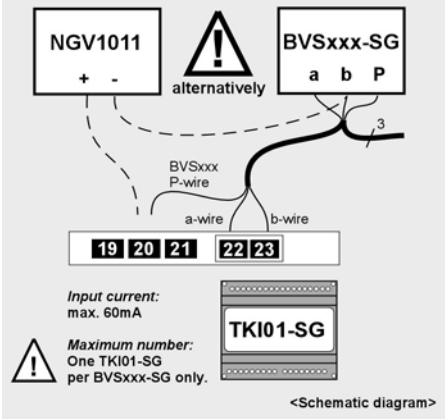
**\*** **0...9** **Energize optional BRE / TOER2**

**How to install / connect the interface device**

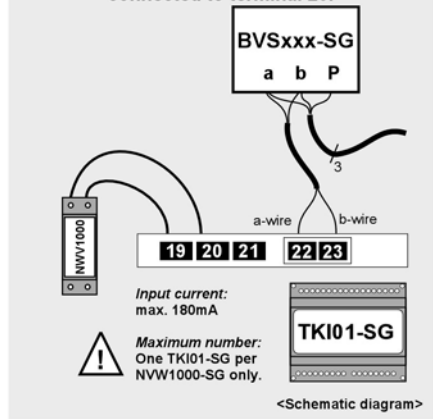
**Basic layout using TKI01-SG**



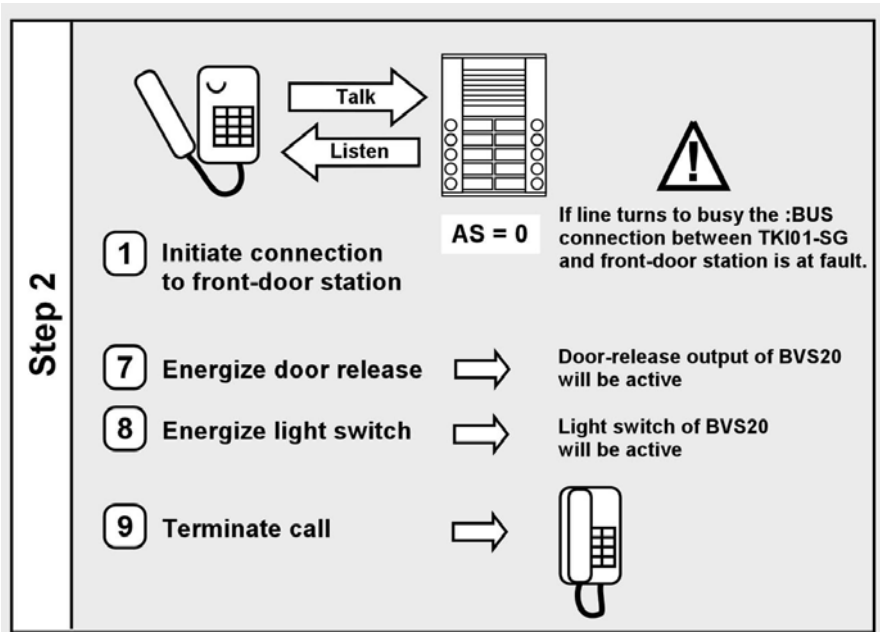
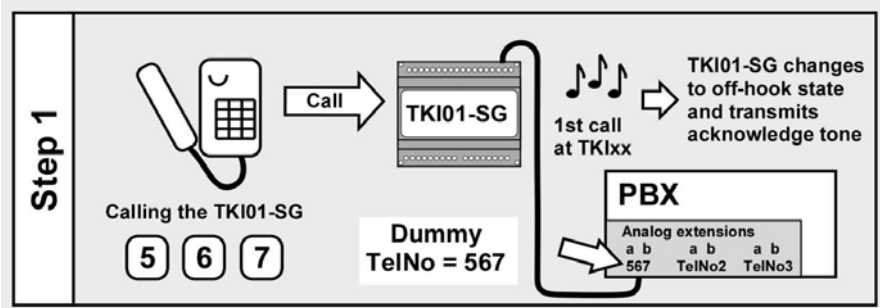
**Power supply using the P-wire**  
 Either NGV1011 or BVSxxx



**Power supply using NVW1000**  
 The BVSxxx P-wire must not be connected to terminal 20!

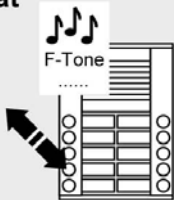
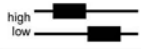

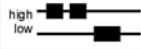





**Initial operation** (Basic layout shown)



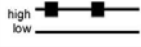








**Support for initial operation**

**Acoustic user guidance**

Fault tones at		Empty memory selected:	Called party busy:	Called party does not answer:
 <p>F-Tone .....</p>	<b>Issue</b> Empty memory selected:	<b>Sound</b> 	<b>Sound</b> 	<b>Sound</b> 
	<b>Symbol</b>  <p>F-Tone <i>Empty</i></p>	 <p>F-Tone <i>Busy</i></p>	 <p>F-Tone <i>Absent</i></p>	

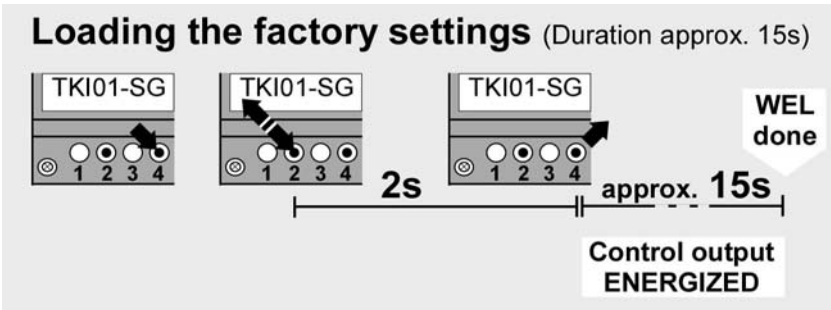
  

Signal tones at		TKI acknowledge:	TKI time out for connection:	Command positive acknowledge:	Command negative acknowledge:
 <p>K-Tone .....</p>	<b>Issue</b> TKI acknowledge:	<b>Sound</b> 	<b>Sound</b> 	<b>Sound</b> 	<b>Sound</b> 
	<b>Symbol</b>  <p>K-Tone <i>TKI</i></p>	 <p>K-Tone <i>End</i></p>	 <p>K-Tone <i>Positive</i></p>	 <p>K-Tone <i>Negative</i></p>	

## Factory Settings (WEL)

Loading the factory settings is only necessary where all parameters are to be reset in one go. This might become inevitable if the PIN for the programming

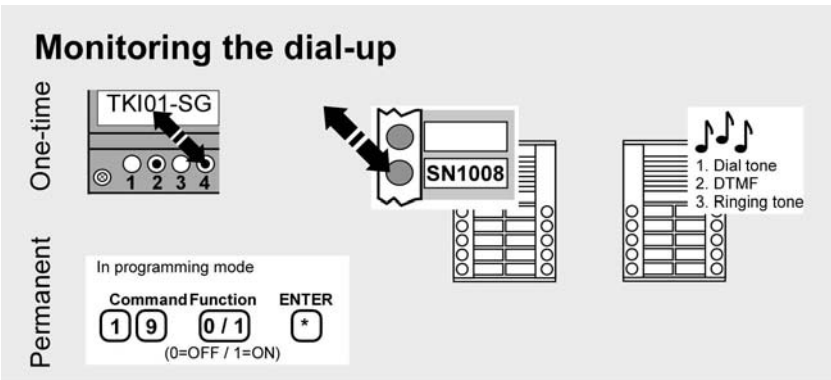
mode has been lost. Only loading of the factory settings will reset the PIN to "0000".



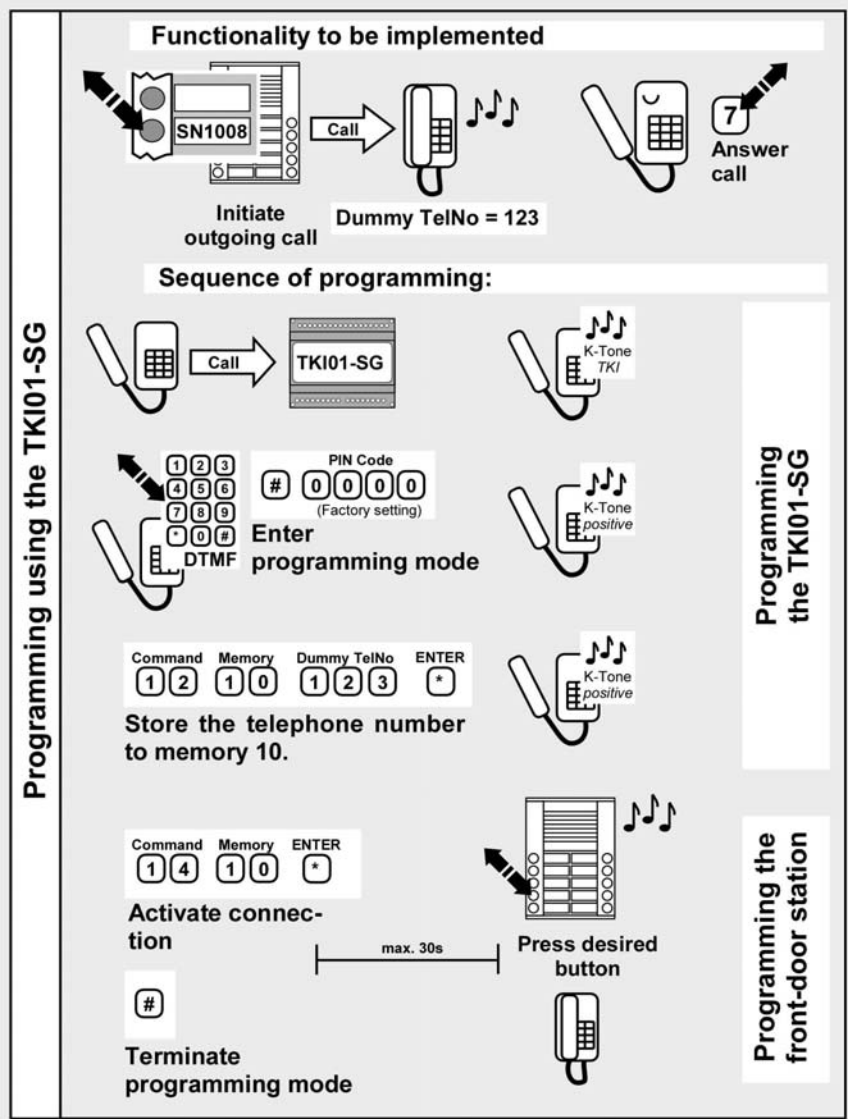
## Monitoring at the Front-door station:

In addition to the message tone sequences, also the establishment of a connection may be monitored at the front-door station. Start

by using the following sequence. This allows you to monitor the establishment of a connection without using any instrumentation. Thus, possible **causes of faults** may be **analyzed very quickly**.

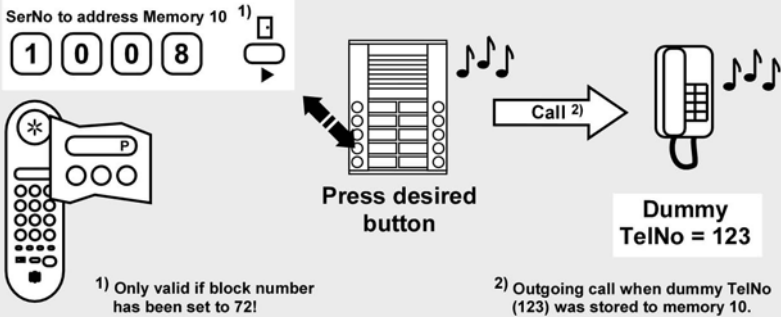


**How to Program the System (Part 1 of 2)**

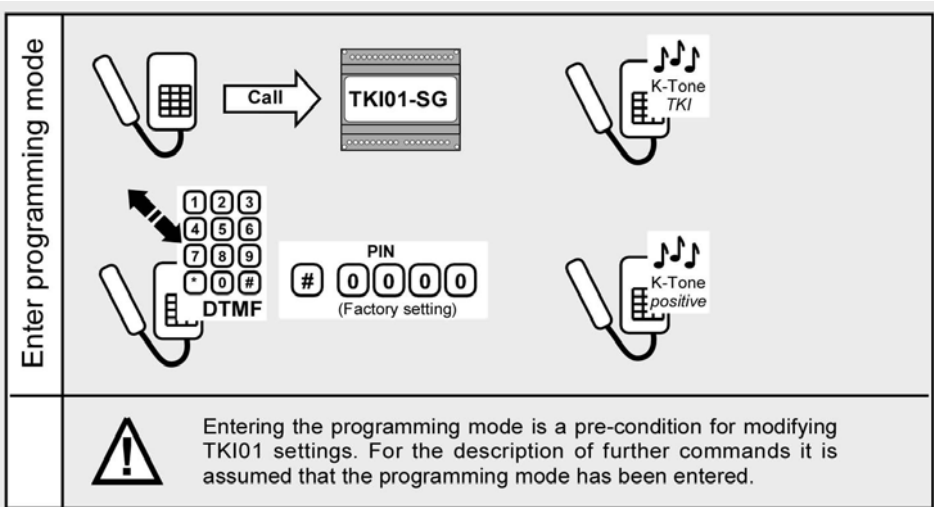


## How to Program the System (Part 2 of 2)

### Alternative method using TCSK01



## Programming the TKI01-SG/2 – Important Commands



**Programming the TKI01-SG/2 – Important Commands (Part 1 of 3)**

**Terminate programming mode**

**Alter PIN**

**User input**

**Modify talk time**

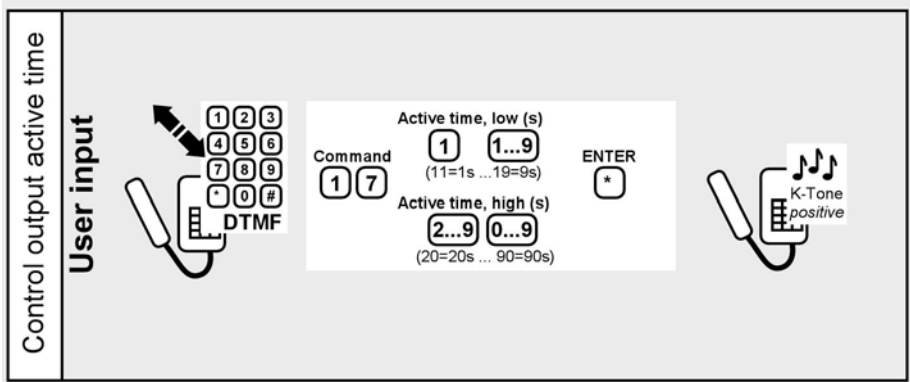
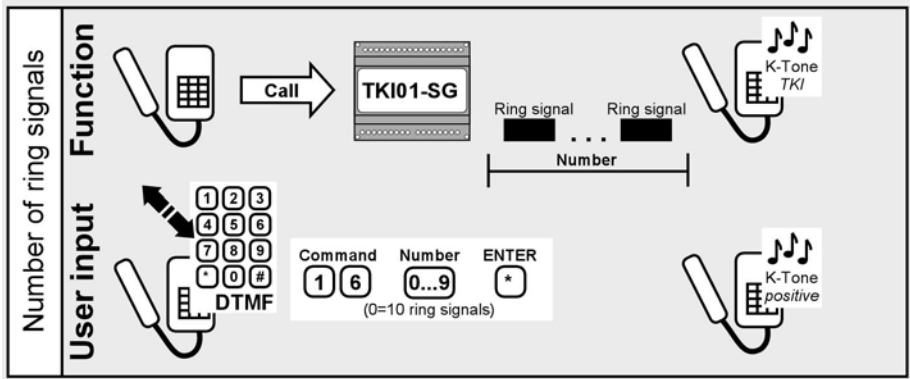
**Function**

**User input**

**Note**

While K-Tone *End* is active any DTMF user input will restart talk time.

**Programming the TKI01-SG/2 – Important Commands (Part 2 of 3)**



**Programming the TKI01-SG/2 – Important Commands (Part 3 of 3)**

Change block number	Function			BIno = 72 ⇔ SerNo 1008...1023 BIno = 71 ⇔ SerNo 992...1007 BIno = 70 ⇔ SerNo 976...991 BIno = 69 ⇔ SerNo 960...975 BIno = 68 ⇔ SerNo 944...959	
	User input		Command <b>1 8</b>	Block number <b>1...7 0...9</b> (min.10... max.72)	ENTER <b>*</b>

Outgoing call time-out	Function			Ring signal      Ring signal ... Time-out (s)	
	User input		Command <b>3 0</b>	Time-out (s) <b>1...9 0...9</b> (min.10s... max.90s)	ENTER <b>*</b>

## Reference list of all commands to the TKI01-SG

All commands have to be completed by pressing the '\*\*' key following the parameter

Command	Parameter	Function	WEL
10	<sup>PIN</sup> XXXX	Enters a PIN	0000
11	Memory position XX	Sets a memory position for the input port	26
12	Mem. posn. (10...25) Phone no. XX YYY	Enters or clears (no YYY) a phone no. (16 digits max.) in memory position XX	Cleared
13	Mem. posn. (10...25) XX	Checks the contents of memory position XX	None
14	Mem. posn. XX	Assigns a TKI Memory position to a call button	None
15	Com duration in secs (10...90) XX	Sets the maximum duration of a communication (Exception 88secs= "infinite")	15
16	No. of call signals (1...9;0=10 calls) X	Sets the no. of call signals for the TKI to answer the call	1
17	Operating time in secs XX	Sets the operating time of the control output (10=10s / 11=1s / ...19=9s / 20s...90s)	30
18	Block number (10...72) XX	Sets the block number	72
19	Monitoring status 0 or 1	Sets the monitoring during connection establishment (0=request with WEL 1=always automatically).	0
20	Type of line 0 or 1	Sets the type of phone line (0=at private exchange 1=at public exchange)	0
21	External-call prefix X or XX	Sets the external-call prefix (Exceptions 01=FLASH / 02=DTMF* / 03=DTMF#)	1
22	No. of instant dialling key 4 or 5 or 6	Teach-in of an internal subscriber to the # 4 / 5 / 6 keys	None
23	0=OFF 1=ON 0 or 1	Enables/disables remote maintenance control	0
24	0=Call 1=TOE 2=Day/Night 0 or 1 or 2	Defines the function of the sensor input	0
25	0=Key 7 1=Speak at instant 0 or 1	Defines how to initialize connection NB: <b>Not with call diversion!</b>	0
26	Dialling delay in secs X	Sets the delay of the dialling start (Exception 0=tone-controlled, 1s ... 9s)	3
27	Mem. posn. Mem. posn. (Succ.) XX YY	Enters the memory position (YY) of the successor for memory position XX during call forwarding	Cleared
28	Mem. posn. Mem. posn. (Night) XX YY	Enters the memory position for night calls for memory position XX for day/night service	Cleared
29	Mem. posn. 0=OFF 1=ON XX Y	Enables/disables the control output when calling via memory position XX	Cleared
30	Call time in secs (10...90) XX	Defines the call time after pressing the bell button	30

<b>31</b>	0=LOW 1=HIGH <b>X</b>	Sets the priority of the TKI	<b>1</b>
<b>32</b>	0=OFF 1=ON <b>X</b>	Controls the offering tone during the call from a front-door station	<b>1</b>
<b>33</b>	Sensor input AS Address (10...63) <b>XX</b>	Enters the AS Address to the sensor input in case of a speech connection (64=no speech connection)	<b>64</b> .
<b>34</b>	No parameter!	Starts the transfer of internal parameter block of the TKI	<b>None</b>
<b>35</b>	Mem. posn. (10...25) <b>XX</b>	Starts the read-out of the parameter block to the memory position XX	<b>None</b>
<b>36</b>	Project number (0000...9999) <b>XXXX</b>	Enters the 4-digit project number	<b>0000</b>
<b>37</b>	0=OFF 1=ON <b>X</b>	Controls the error tone output	<b>1</b>
<b>38</b>	0=Ignore/1=Door call/2=Storey call <b>X</b>	Sets the function of the internal call to the TKI	<b>2</b>
<b>39</b>	0=No PIN 1= PIN for access <b>X</b>	Enables/disables the PIN for access	<b>0</b>
<b>40</b>	0=Short 1=Long <b>X</b>	Sets the time-out after dialling Short=10secs / Long=45secs	<b>1</b>
<b>41</b>	0=16bit 1=32bit <b>X</b>	Sets the format of the door-release command 0 = 16bit = Short / 1 = 32bit = Long	<b>1</b>