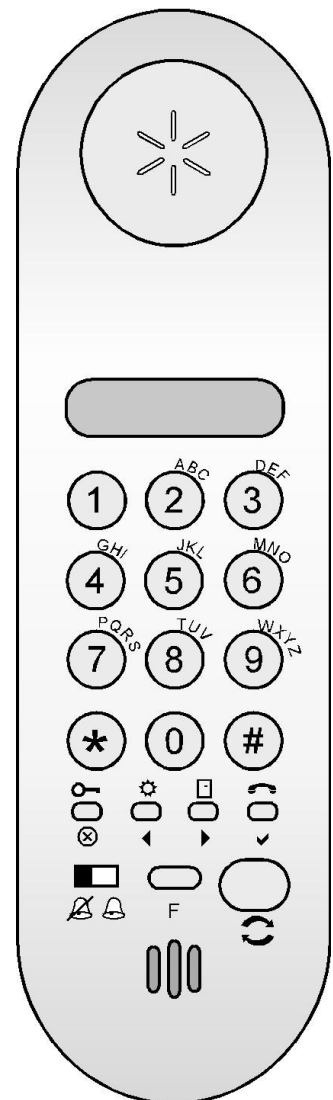


# Handbook

## Service Device

# TCSK-01



## Table of contents

Table of contents .....	2
Scope of delivery .....	2
Safety notices .....	3
Terms.....	3
Device overview.....	4
Technical data .....	4
Application .....	5
Brief description .....	5
Functions .....	5
First commissioning .....	5
Send registration fax .....	5
Determination of the serial number on the Service Device .....	6
Clearing the Service Device.....	6
Cable connection .....	6
Changing the display .....	7
Meaning of the protocol digits .....	8
Readout of the AS address of a front-door station .....	9
Programming and cancellation of bell buttons .....	9
Functional check of the system.....	10
... via function keys .....	10
... by entering command sequences .....	11
Functions .....	11
Cleaning.....	5
Service.....	16

## Scope of delivery

- 1 x Service Device TCSK-01
- 1 x Adapter board,
- 1 x Connection cable for UAE box
- 1 x Connection cable to connecting jack for bell button extension
- 1 x User manual with registration fax

## Safety notices

**!** Assembly, installation, and commissioning must only be carried out by a qualified electrician!

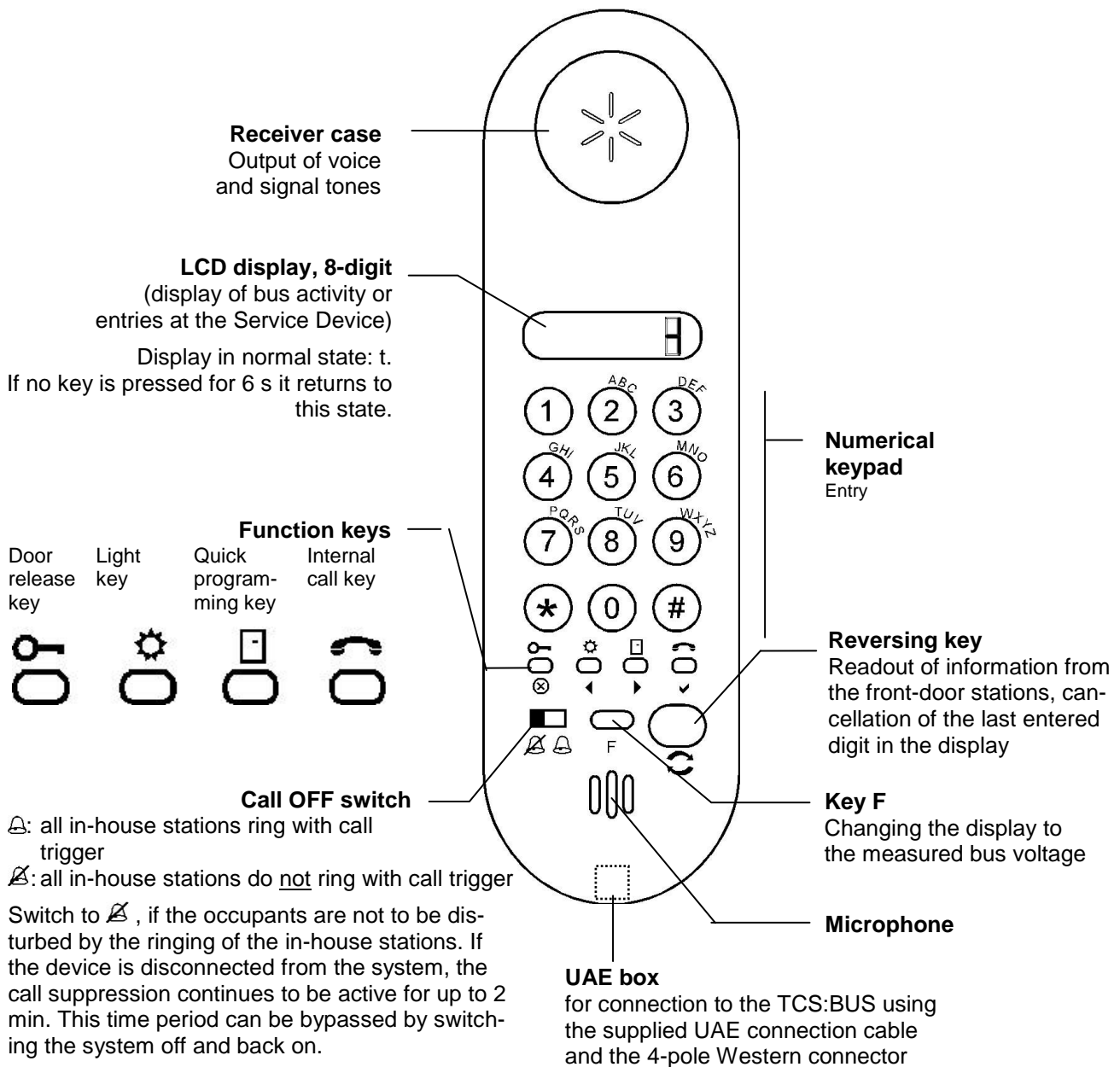
For work on systems with 230 V AC mains current the safety requirements of DIN VDE 0100 must be observed.

When installing TCS:BUS systems the general safety rules for telecommunication systems in accordance with VDE 0800 must be observed.

## Terms

AS address	<p>Front door stations have in addition to their own serial number a <b>sender identity</b>. This is called the AS address. To create a call connection the device being called needs to know from which sender the call originates. It takes this information from the AS address. The AS address of a front-door station is <b>not fixed</b> at the time of delivery of the device. After power is switched on, the front-door stations <b>automatically</b> agree on the AS address. It cannot be predicted which AS address a front-door station will be assigned.</p> <p>If the AS is to be fixed, it needs to be entered in the front-door station using the Service Device TCSK-01. When assigning AS addresses all front-door stations must be given <b>different</b> AS addresses! Values from 0 ... 63 are permitted.</p> <p>The <b>AS block</b> is also automatically set.</p>
AS block	<p>If an AS block has been set it <b>prevents the automatic modification</b> of the AS address by the front-door station.</p>
Bus protocol	<p>All information transferred via the TCS:BUS is packaged in bus protocols and displayed in the TCSK-01 display mostly. A bus protocol consists of three segments:</p> <ol style="list-style-type: none"> <li><b>1. Protocol digit:</b> It explains a specific function of the bus protocol.</li> <li><b>2. Serial number:</b> Each device has a serial number. It is used to address the selected device. The serial number shows to whom the respective function from segment A has been allocated.</li> <li><b>3. Sender or additional information on the serial number.</b></li> </ol> <p>Bus protocols may have <b>varying lengths</b>. The description therefore talks of long (32 bit) and short (16 bit) protocols.</p>
Control protocol	<p>Besides the call of an in-house station by the front-door station there are further protocols. For <b>control tasks</b> the control protocol is being used. Control protocols also exist as long and short variants.</p>

## Device overview



## Technical data

Supply voltage:	+24 V $\pm$ 8 % (via power supply and control unit)
Case:	light grey
dimensions (in mm):	H 200 mm x W 50 mm x D 50 mm
operating temperature range:	0 °C ... + 40 °C
storage temperature	- 10 °C ... + 40 °C
Input current without load (3 wires):	I(a) = 0.4 mA, I(P) = 10 mA standby
maximum input current:	I(Pmax) = 13 mA
Accuracy:	$\pm$ 0.5 V
Measuring range:	0 - 25 V DC

## Application

The Service Device TCSK-01 is used for system programming and analysis.

## Brief description

### Functions

- Display of BUS protocols via number codes
- Evaluation and control of :BUS protocols
- Modification of parameters for front-door and in-house stations
- Execution of basic functions on the TCS:BUS
- Activation and Deactivation of call suppression
- Display of the current :BUS voltage
- Programming and cancellation of bell buttons
- Testing of voice connections from Service Device to front-door station and from Service Device to in-house station
- Checking of the :BUS installation in service mode
- Activation and deactivation of an programming block

## Cleaning

- ! Avoid water entering the device!  
Do not use any aggressive or abrasive cleaning agents!

Clean the device using a dry or slightly moist cloth.  
More persistent dirt can be removed using a mild household cleaner.

## First commissioning

- ! Only applies once for the first commissioning.  
During software updates the device does not need to be cleared again.

### Send registration fax

- ! The use of the Service Device TCSK-01 is only possible after entry of a release code.  
After initial release the Service Device can be used without restrictions.

- Please remove the registration fax from the manual.
- Enter your complete address into the field provided.

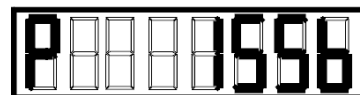
- Enter the 4-digit number of your Service Device TCSK-01, which is printed on a sticker on the device packaging, into the field **serial number**.
- Complete the registration fax and send it to us.

You will receive the release code from us by return fax within one working day from Monday to Friday.

### ***Determination of the serial number on the Service Device***

If the number printed on the packaging is not available, the not yet cleared device is able to display the serial number:

- Connect the Service Device to a system (see section Cable connection).
- The display briefly shows **P** and the **serial number**:

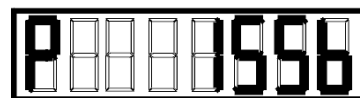


Serial number

### ***Clearing the Service Device***

As soon as you have received the release code you can clear the Service Device.

- Connect the Service Device to a system (see section Cable connection).  
The display shows:
- Enter the allocated release code via the keypad of the Service Device.  
The number has a maximum of 6 digits.
- Confirm the entry by pressing the hash key.



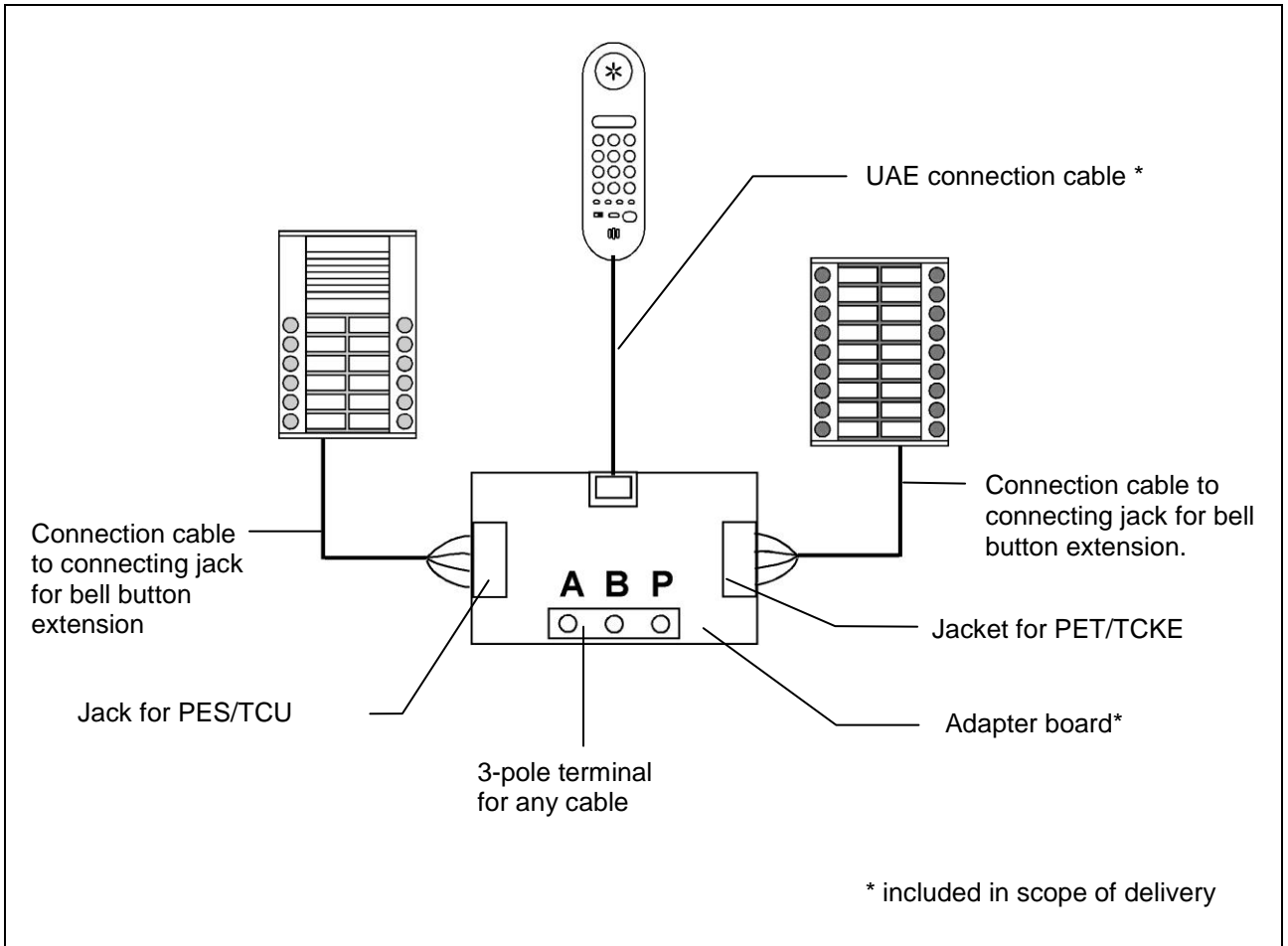
## **Cable connection of the device**

- Connect the adapter board as shown in the illustration below.

If a front-door station (without bell button extension) is not fitted with a connecting jack for a Service Device, the connection from the 3-pole connection terminal of the adapter board to the front-door station can be made using any 3-wire connection cable.

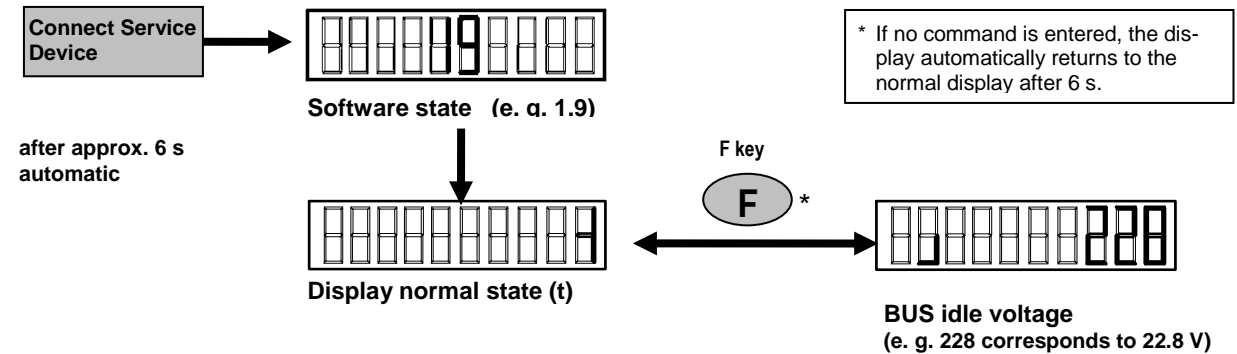
#### **Notes:**

- Do not connect any adapter cable to front-door stations with 3-pole connector!
- Always connect the TSCK-01 to the P conductor to ensure proper functioning! (e. g. via wire to BVS)



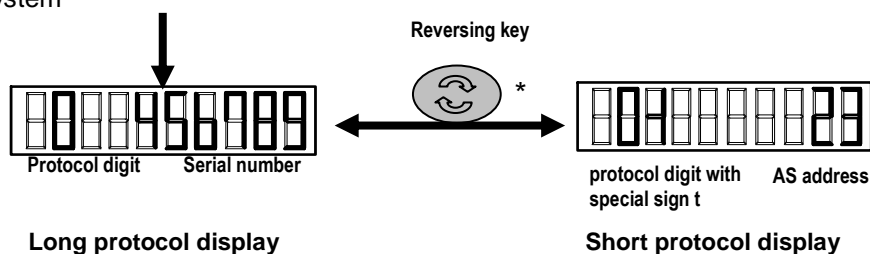
### Changing the display

The display of the Service Device allows for various indications. With two display states a change to the other display is possible by pressing a key. The change between the protocol displays is always accompanied by a brief acknowledgment tone



From the normal state bus protocols can be displayed: If an action is executed at the system (e. g. lifting a telephone handset), this is displayed at the Service Device. If the serial number of a front-door station is displayed, it is possible to change from the long protocol display to the short protocol display.

Press a function key at the service device or enter a command sequence or action at the system



## Meaning of the protocol digits

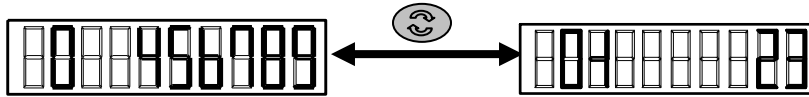
Protocol digit	Action
0	Call from front-door station to in-house station with display of serial number called
0t	Call from front-door station to in-house station with display of AS address
1	Long door release protocol with display of the corresponding serial number
1t	Short door release protocol with display of the AS address
2t	Light switch protocol with display of the AS address
3	Call commencement by the in-house station with display of the serial number of the in-house station
3t	Call termination by the in-house station with display of the AS address
4	Flat-door call with display of the serial number of the ringing device
6	Long control protocol with display of the serial number of the device
6t	Long control protocol with display of the control function number
9	Internal call with display of the serial number of the called device



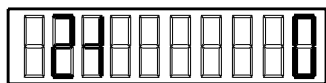
## Readout of the AS address of a front-door station

- Connect the Service Device to a system (see page 6).
- Press a bell button at the front-door station.

If the bell button is **programmed** the protocol digit 0 and the serial number of the called in-house station appear in the display. By pressing the reversing key on the Service Device its AS address it shown in the right portion of the number field (e. g. 23)



If the bell button is **not programmed** the protocol digit 2t (light switch protocol) appears in the display when pressing the bell button together with the AS address (e. g. 0)



## Programming and cancellation of bell buttons

### Tone legend

Ring tone		NoProg tone	
Delation tone		Prog2 tone	
		BlockProg tone	


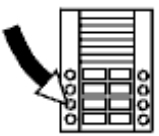

### Signal tone legend TCSK

Acknowledgement tone positive (function was executed correctly)	
Acknowledgement tone negative (function could not be executed)	
Confirmation signal for key press	

**!** Note: The programming mode of the system must not be switched on at the supply and control device for this!





Programming of the first serial number	Response
1. Connect the Service Device to the front-door station.	
2. Enter the serial number of an in-house station (telephone) via the keypad.	
3. Press the quick programming key  . Wait until a P appears on the display.	The serial number of the in-house station is transferred to the front-door station.
4. Briefly press the bell button on the front-door station which is to be allocated to this in-house station.	A positive acknowledgement tone TCSK confirms the successful programming.

Programming of a second serial number for the same bell button (not for PAK before version 2.23 and TCKE)	Response
1. Repeat the steps 2. and 3.	
2. Keep the the bell button to be programmed pressed on the front-door station (for 12 s) until ...  <i>Note: The programming is automatically terminated by the Service Device if no bell button is pressed after 14 s.</i>	... always after 6 s you will hear: Prog2 tone, NoProg tone, ring tone (both devices will ring).  <i>A negative acknowledgement tone TCSK can be heard if the programming attempt fails.</i>

Cancellation of a bell button	
1. Switch the programming mode <b>on</b> .	
2. Press the desired <b>bell button</b> and <b>keep it pressed</b> until a cancellation tone can be heard. Repeat step 2 for other buttons to be cancelled.	
3. Switch the programming mode <b>off</b> .	

## Functional check of the system

### ... via function keys

Function	Key	Process
Door release function trigger		Enter <b>AS address</b> of the opening front-door station (with more than one front-door station) Press <b>door release key</b>
Light switch function trigger		Press light key
Voice connection to front-door station		Enter <b>AS address</b> of front-station (value 0 ... 63 permitted) Press <b>internal call key</b> speaking Termination of the voice connection: Press <b>internal call key</b> again.
Voice connection to in-house station		Enter <b>serial number</b> of in-house station* Press <b>internal call key</b> speaking Termination of the voice connection: Press <b>internal call key</b> again.

\* serial number has at least 3 digits, if necessary complete number with leading zeros (e. g. 1 → 001)

### ... by entering command sequences

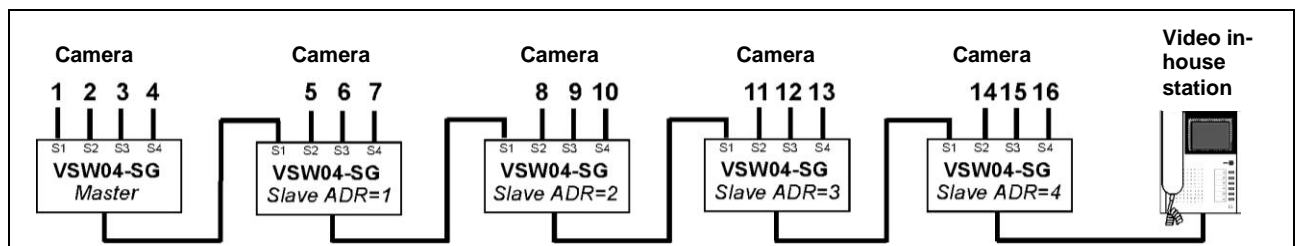
- Command sequences are activated by pressing the **\* key**.
- Principally a command entry is terminated by pressing the **# key**.
- The **reversing key** functions as **correction key** in this mode.
- Successfully executed commands are confirmed with an **acknowledgment tone**.

#### Note:

- If no key has been pressed the Service Device returns to the normal state after 6 s. The key sequences must therefore be entered without delay.
- Determine the serial numbers of the devices prior to starting and familiarise yourself with the key sequences to be entered.

Functions	Command group and sequences
switching the <b>programming mode of the system</b> on / off	
switch on	* 1 #
switch off	* 2 #
<b>Program VSW camera input</b>	<b>2</b>
Ser.-Nr. M = serial number of master VSW04 (*see fig. below) Ser.-Nr. S = serial no. of slave VSW04 K = number of camera input at VSW04 (value 1 ... 15) AS = AS address of front-door station for this camera input (value 0 ... 63) ADR = slave address at VSW04 (value 1 ... 4)	
<b>NOTE:</b> The AS address of the video front-door station must first be set with TCSK-01 (see p. 14: * 76 #).	
<b>Connect camera input with video front-door station</b>	* 20 # Ser.-Nr. M # K # AS #
<b>Connect camera input with camera without front-door station</b>	* 21 # Ser.-Nr. M # K #
<b>Cancel camera input *</b> <b>NOTE:</b> Camera input 1 cannot be cancelled.	* 22 # Ser.-Nr. M # K #
<b>Set VSW slave address</b>	* 23 # Ser.-Nr. S # ADR #
<b>Load VSW factory setting</b>	* 24 # Ser.-Nr. M #






\* Fig.: Cascading of video reversing switch VSW04



Program FVU1210	2
AS = AS address of the video front-door station Ser.-Nr.VU = serial no. of the FVU1210 K = no. of the video input at the FVU1210 (value 1 or 2)	
<b>NOTE:</b> The AS address of the video front-door station must first be set with TCSK-01 (see p. 14: * 76 #).	
Connect FVU1210 video input <i>K</i> with the video front-door station	* (20) # Ser.-Nr.VU # K # AS #
Cancel FVU1210 to AS allocation to the video input	* (22) # Ser.-Nr.VU # K #
Load FVU1210 factory setting	* (24) # Ser.-Nr.VU #

Trigger control function	3
Ser.-Nr. = serial no. of end device StF = number of control function to be sent	
	* (30) # Ser.-Nr. # StF #

Configure signal devices	4
Ser.-Nr. = the serial number of the newly to be configured signal device ParSNr. = the serial number for the device to which the newly to be configured signal device will be allocated.	
parallel call 1	* (40) # Ser.-Nr. # ParSNr #
parallel call 2	* (41) # Ser.-Nr. # ParSNr #

Search for <b>BUS devices</b>	<b>5</b>			
The TCSK-01 can detect all devices connected to the BUS (max. 80) of a special device type and display their serial numbers. After entering the respective command all devices of the type searched for will be acquired. The number of the devices found will be briefly shown. Then the first found serial number appears in the display.				
Search <b>telephones</b>	* 51 #			
Search <b>simplex communication devices</b>	* 52 #			
Search <b>sensors and combining devices</b>	* 53 #			
Search <b>front-door stations</b>	* 54 #			
Search <b>bells and signal units</b>	* 55 #			
After the acknowledgement tone scrolling through the list of serial numbers is possible using the <b>function keys</b> :				
to the first serial number  X	to the previous  ◀	to the next  ▶	to the last serial number  ✓	search mode end 

Configure <b>relay TRE2, TOER2 and FVU1200</b>	<b>6</b>
Ser.-Nr. = the serial number of TRE2 / TOER2 or FVU1200 ParSNr. = the serial number for the device to which the newly to be configured relay will be allocated. AS = AS address of the front-door station (value 0 ... 63). For FVU1200: AS address of the flat-door video front-door station TelSNr. = the serial number of the telephone sending the control function (video in-house station for *63) StF = number of control function to be sent (0 ... 11)	
Activation of the <b>TRE2</b> or <b>TOER2</b> for front-door call, internal call to parallel serial number and operation of the flat-door button at the device with the corresponding serial number	* 60 # Ser.-Nr. # ParSNr. #
<b>TOER2</b> as door release relay	* 61 # Ser.-Nr. # AS #
Evaluate <b>control functions</b> (control functions 0 ... 11) (TRE2, TOER2)	* 62 # Ser.-Nr. # TelSNr. # StF #
Configure <b>FVU1200</b>	* 63 # Ser.-Nr. # TelSNr. # AS #
Set relay switching time (time: value between 1 and 255; 1 s steps) (TRE2, TOER2)	* 69 # Ser.-Nr. # Zeit #

Configure <b>front-door station</b>	<b>7</b>
<p>Some functional features of the front-stations can be modified with the TCSK-01. Each front-door station has a serial number. For the settings to be applied to the desired front-end station the serial number of the front-end station must be included in all command sequences of group 7.</p> <p>Ser.-N. = the serial number of the newly to be configured front-end station. (see label in the front-end station)</p> <p>AS = AS address (value 0 ... 63)</p>	
<p><b>Cancel</b> programming block, light switch function and speaking with active door readiness, loading the <b>normal state</b> for acknowledgement tones</p>	<p>* (71) # Ser.-Nr. #</p>
<p>Activate <b>programming block</b> <b>NOTE:</b> With the programming block set no key programming is possible. If programming is attempted the programming block tone will sound at the front-door station.</p>	<p>* (72) # Ser.-Nr. #</p>
<p>Set <b>speaking time</b>      speaking time = (1 to 5) * 8 s 0 = unlimited</p>	<p>* (73) # Ser.-Nr. # Sprechzeit #</p>
<p>Activate <b>speaking</b> only with <b>active door readiness</b></p>	<p>* (74) # Ser.-Nr. #</p>
<p>Select front-station <b>acknowledgement tones</b> Fct. = <b>0</b> - acknowledgement tone for front-door call (ring tone) <b>1</b> - acknowledgement tone when a voice connection has been established <b>2</b> - brief acknowledgement tone for front-door call <b>3</b> - no acknowledgement tone for front-door call (except P mode)</p>	<p>* (75) # Ser.-Nr. # Fkt. #</p>
<p>Set and block <b>AS address</b> <b>NOTE:</b> The programming and AS block and the speaking with active door readiness can be set separately, but can only be removed jointly.</p>	<p>* (76) # Ser.-Nr. # AS #</p>
<p>Activate <b>Light switch function TTS1 / TTS10 and TTS25</b></p>	<p>* (77) # Ser.-Nr. #</p>
<p>Select <b>alert contact function</b> (only TCU2 and PDS, PES)  Fct. = <b>0</b> - door alert <b>1</b> - light switch function <b>2</b> - door release function <b>3</b> - control function 3 with SN of the front-door station</p>	<p>* (78) # Ser.-Nr. # Fkt. #</p>

Configure in-house stations <b>telephones</b>	<b>8</b>
Ser.-Nr. = the serial number of the newly to be configured telephone ZielSNr. = the serial number of the target telephone in call redirection IntSNr. = the serial number of the internal telephone ParSNr. = the serial number for the device to which the newly to configured telephone will be allocated.	
<b>Set functions for key <math>\odot</math> : IMM1xxx, IVW3010</b> <b>key <math>\square</math> : VMH30, VML30, VMH30C, VMH30</b>	
Call redirection	$\ast$ (80) $\#$ Ser.-Nr. $\#$ ZielSNr. $\#$
Automatic door release	$\ast$ (81) $\#$ Ser.-Nr. $\#$
Internal call 1	$\ast$ (82) $\#$ Ser.-Nr. $\#$ IntSNr. $\#$
Control function 8	$\ast$ (83) $\#$ Ser.-Nr. $\#$
<b>Set functions for key <math>\odot</math> : VMH30, VML30, VMH30C, VMH30, VMF30</b>	
Internal call 2	$\ast$ (84) $\#$ Ser.-Nr. $\#$ IntSNr. $\#$
Control function 9	$\ast$ (85) $\#$ Ser.-Nr. $\#$
Light switching	$\ast$ (86) $\#$ Ser.-Nr. $\#$
<b>Set functions for key <math>\odot</math> : VMH30, VML30, VMH30C, VMH30, VMF30</b>	
Internal call 3 *	$\ast$ (87) $\#$ Ser.-Nr. $\#$ IntSNr. $\#$
control function 10	$\ast$ (88) $\#$ Ser.-Nr. $\#$
Switch on parallel call *	$\ast$ (89) $\#$ Ser.-Nr. $\#$ ParSNr. $\#$
Switch off parallel call	$\ast$ (89) $\#$ Ser.-Nr. $\#$ ParSNr. $\#$

\* Note for VMH30, VML30, VMH30C, VMH30C:  
 Parallel allocation deactivates the internal call 3 for key  $\odot$  .

<b>Configure</b> in-house stations hands free	<b>9</b>
<p>Programming the commands "9" has to be initiated with command *95#Ser.-Nr.#. Then the programming of the function key has to be carried out with the service device (not for ISW4100, IMM2xxx).</p> <p>Ser.-Nr. = the serial number of the newly to be configured in-house station ZielSNr. = the serial number of the target in-house station in call redirection IntSNr. = the serial number of the in-house station to be called internal ParSNr. = the serial number for the in-house station to which the newly to be configured in-house station will be allocated</p>	
<b>Function key: ISW42x0, ISW4100, IVW2210. IVW2220, IVW3011, IMM2xxx</b>	
Einleitung (not for ISW4100, IMM2xxx)	* 95 # Ser.-Nr. #
Call redirection	* 90 # Ser.-Nr. # ZielSNr. #
Automatic door release	* 91 # Ser.-Nr. #
Internal call	* 92 # Ser.-Nr. # IntSNr #
Control function 8	* 93 # Ser.-Nr. #
Light switch function (not for ISW4100, IMM2xxx)	* 94 # Ser.-Nr. # 0 #
<b>Parallel allocation: ISW3030, ISW4000, ISW42x0, ISW4100, IVW2210. IVW2220, IVW3011, IMM2xxx</b>	
Switch on parallel call *	* 99 # Ser.-Nr. # ParSNr #
Switch off parallel call	* 99 # Ser.-Nr. # 0 r #

## Service

Contact your local sales representative or  
**[www.tcs-germany.com](http://www.tcs-germany.com)**

### Headquarters

TCS TürControlSysteme AG,  
Geschwister-Scholl-Str. 7, 39307 Genthin, Germany  
Phone: +49 39 33/ 87 99 10,  
FAX: +49 39 33/ 87 99 11  
[www.tcsag.de](http://www.tcsag.de)