SSS **SIEDLE**

Commissioning instruction
Smart Gateway
Professional

SG 650-0

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These commissioning instructions supplement/are supplemented by:
• Product Information Smart Gateway SG 650-0
• System Manual In-Home bus: Video

The relevant current edition is located in the download area on www.siedle.com

Subject to printing errors.
We reserve modifications depending on technical improvements.

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Safety remarks

Observe the safety instructions!
Read and observe the safety instructions and content of the following documents before using the Gateway for the first time:
• Product information sheet
• Commissioning instructions
• System Manual In-Home bus: Video
Explain the content of the safety instructions and dangers inherent in using technically complex products to children and those requiring assistance in a way that is easily understandable.

Electrical voltage

Mounting, installation and servicing work on electrical devices may only be performed by a suitably qualified electrician.

Servicing
Statutory warranty conditions apply. If the device requires servicing, contact your specialist dealer or electrical installer.
Customer service in the Furtwangen factory +49 7723 63-434

Protect your property!
Lock front doors or apartment doors during the daytime if there is nobody home. Unlocked doors allow thieves/burglars to gain easy access to your property.
The Siedle app can be used from any location as a door release. Keep smartphones/tablets on which the Siedle app is activated safe from theft. Protect these devices against unauthorized usage with a code / password. Always use the latest protection mechanisms available for your smartphone/tablet.

Protect your network!
Only use up-to-date components and terminals in the network in line with the latest state of the art. Regularly update the operating systems of all components and terminals. Exchange obsolete components and terminals for up-to-date models. Use professional protective software (antivirus, firewall, …) in all terminals. Issue secure passwords. Secure your network with the highest security standards available in the network. Protect your network against unauthorized attack from inside and outside.

If you are no longer using an smartphone/tablet or PC/laptop with the Siedle app for Smart Gateway Mini or bus software in-house telephone installed, either temporarily or over longer periods (repair, sale, exchange), uninstall the app/software from this device. Never hand over an smartphone/tablet with an operable app/software to a third person!
Delete the affected IP user from the Gateway. This ensures that the affected IP user no longer has access to the door station.
In case of emergency:
• Pull the network cable out of the LAN connection of the Gateway
or
• Deactivate the WLAN of the WLAN router
• Block any existing external access to the LAN network.

Legal notice
Photographs of individuals taken without their knowledge may not be published or stored in publicly accessible video memory facilities. Individuals who have been photographed without their knowledge are entitled to request that pictures be deleted based on the right of persons to their own likeness. Never store pictures of persons you do not know in social networks or send them by email to others/public groups. This will infringe their personal rights.
If stored images are used as part of private / criminal law proceedings or in a police investigation, this requires prior clarification with a lawyer or the responsible police authority.
The legally admissible operation and installation of this device and all its system components (hardware and software) are the responsibility of the user and not of the device manufacturer.

Product registration
Siedle software is continuously updated and further developed. To ensure that you make use of all the product benefits and to obtain regular future updates, we recommend that you register your product in the My Siedle Service Portal:
www.siedle.com/mysiedle

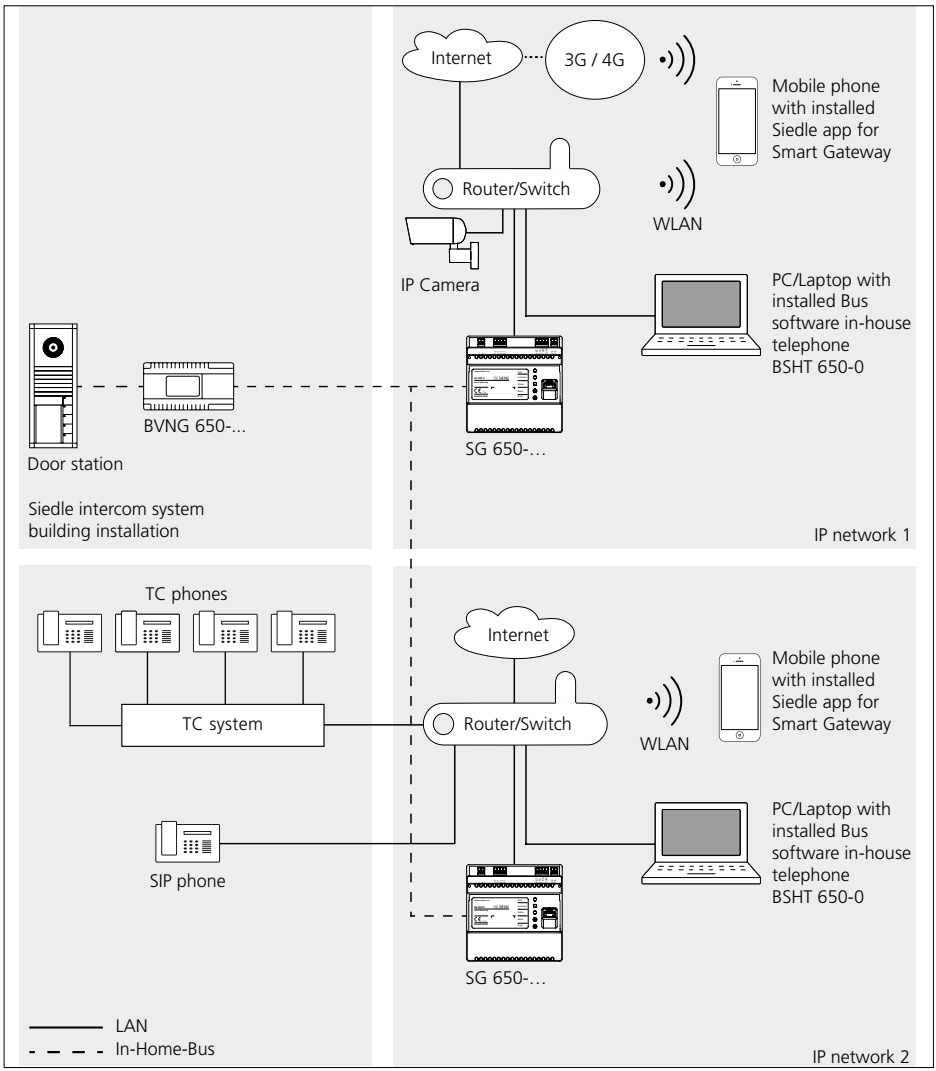
Automatic logout
For security reasons, the Gateway logs out of any session with a logged-in user if no entry has been made in the user interface for 10 minutes. In order to prevent the session time from being extended artificially due to the changes to the time settings, after every change of time setting, an automatic system logout takes place.

Overview

System overview
Simplified layout showing arrangement of the Gateway, Bus software in-house telephone, Siedle app for Smart Gateway and the installed Siedle intercom in the overall system.

Possible IP clients:
- Siedle app
- Siedle Axiom
- Bus software in-house telephone
- SIP telephone (standard)
- TC telephone
- Jung TKM-Client

Integrable networking components:
- IP cameras (directly in Siedle app / bus software in-house telephone / Siedle Axiom)



Overview

Commissioning sequence

Mount the Gateway, connect to the In-Home bus / IP network and switch on.	See Product Information/System Manual
↓	
Configure the Gateway.	11
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Telephony link	22
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Mobile network connection	25
↓	
Carry out a complete function test and hand over the documentation/files to the customer.	30

Bus addresses in the In-Home bus
As a one-line bus system, the In-Home bus is restricted to a maximum of 31 bus addresses (bus users). A bus video line rectifier is required for the one-line system. If more than 31 bus addresses (bus users) are required, up to 15 bus lines can be coupled with each other in the multiple line bus system. For each bus line, you require a dedicated bus video line rectifier (e.g. 2 bus lines => 62 bus addresses (bus users) => 2 bus video line rectifiers). Irrespective of whether you have a one or multiple line bus system, the Gateway can only reserve the free bus addresses in the bus line in which it is operated. Bus address reservation across different lines is not possible. If you need all 31 bus addresses for operation in the Gateway, the rest of the components must be operated in the In-Home bus (door station, indoor call stations) at an additional bus line. In such a case, you will be operating a multiple line bus system and you will require 2 bus video line rectifiers for this.

Please note that within a bus line, the maximum functional scope is available which has been made available by the relevant programming mode. In cross-line operation between 2 different bus lines, individual functions are not available for technical reasons.

Functions applicable across individual lines
Door calls, selective door dialling and switching and control functions can also be used across individual lines. Internal speech communication and call forwarding between users is only possible within a line.

Connection of bus and IP address
If you are operating the Siedle intercom and the Gateway in the single-line bus system, each component of the intercom is assigned the technically stipulated number of bus addresses (indoor station = 1 bus address and door station = 2 bus addresses). Of a maximum of 31 bus addresses available in the bus line, only the unassigned quantity of bus addresses is then available for additional use in the Smart Gateway. As standard, one bus address is already assigned to the Gateway during programming. Additionally required bus addresses must be manually assigned to the Gateway using the reservation function in the Gateway. Every bus address assigned in the Smart Gateway can be used for connection of an iP user or an IP group, in order to allow these to be directly called individually.
To allow 31 free bus addresses to be used in the Gateway, you must operate the Gateway with a separate bus line in the multiple-line bus system.
Example: In one bus line are all the components of the intercom, and in another bus line exclusively the Gateway for connection of the IP users (Siedle app and bus software in-house telephone).
When using the Gateway in the multiple line bus system, at a separate bus line with 31 free bus addresses a maximum of 31 bus addresses can be assigned in the Gateway, and therefore a maximum of 31 IP users or a maximum of 31 IP groups can be directly called (1 bus address required per IP user or IP group). In addition, the IP users must be collated into IP groups (with a maximum of 6 IP users per group) and each IP group must have been assigned a bus address. The maximum number of 50 IP users per Gateway can only be operated by partial IP group formations (with a maximum of 6 IP users per group) with up to 31 bus addresses. IP groups cannot be cascaded (group in group).

Example – Single line system
Use of one bus line.

Installation example
The Siedle call station comprises 2 door stations (main and side entrance), 2 indoor stations (storey 0 and 1), 1 Gateway and 1 bus video line rectifier.
Calculation of the additional bus addresses which can be used in the Gateway:

1. Bus line	
Components	Bus adresses
Door call station Main entrance	2
Door call station Side entrance	2
Internal call station 1	1
Internal call station 2	1
Gateway	1
Sum	7
Max. number of bus addresses per bus line	31
Additionally usable free bus addresses	24

The result: A maximum of 25 bus addresses can be used in the Smart Gateway for the connection of IP users or IP groups (24 free bus addresses + 1 already assigned bus address of the Smart Gateway).

Example – Multiple line system
Use of at least 2 but no more than 15 bus lines.

Installation example
The Siedle call station comprises 2 door stations (main and side entrance), 2 indoor stations (storey 0 and 1), 1 Gateway and 2 bus video line rectifiers.
The Siedle intercom is supplied via the first bus line and the Gateway via the second bus line. Calculation of the additional bus addresses which can be used in the Gateway:

1. Bus line	
Components	Bus adresses
Door call station Main entrance	2
Door call station Side entrance	2
Internal call station 1	1
Internal call station 2	1
Sum	6
Max. number of bus addresses per bus line	31
Additionally usable free bus addresses	25

2. Bus line	
Components	Bus adresses
Gateway	1
Max. number of bus addresses per bus line	31
Additionally usable free bus addresses	30

The result: A maximum of 31 bus addresses can be used in the Gateway for the connection of IP users or IP groups (30 free bus addresses + 1 already assigned bus address of the Gateway).

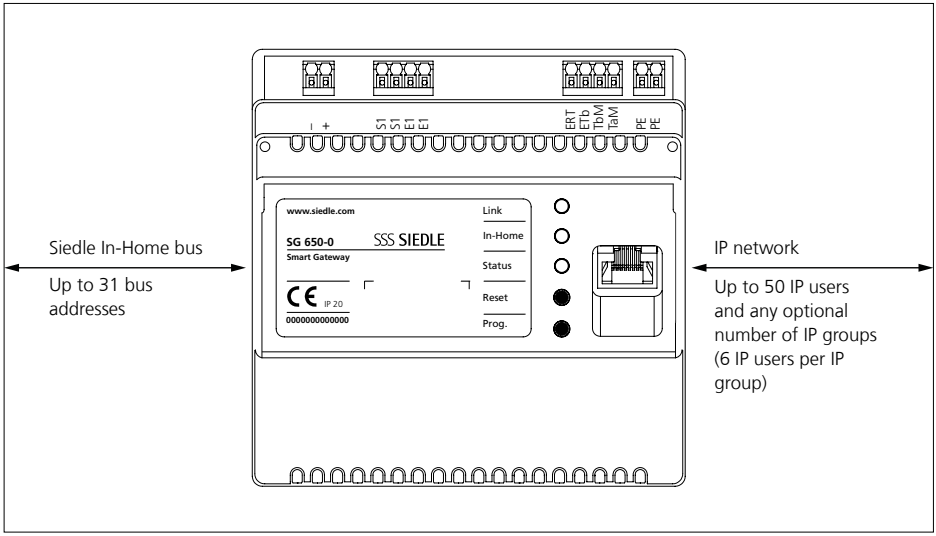
System limits

Gateway	
Characteristics:	Number
Maximum number of assignable bus addresses	31
Maximum number of IP users per Gateway (the scope of supply of the Gateway includes 2 user licences for a total of 2 IP users)	50
Maximum number of IP groups	–
Maximum number of IP users per IP group	6
Cascading: IP group in IP group	0

With an In-Home bus address, you can:
Selectively call 1 IP user individually through the In-Home bus (e.g. door station)
or
Selectively call 1 IP group (with a maximum of 6 IP users) individually through the In-Home bus (e.g. door station).

With 31 In-Home bus addresses, you can:
Selectively call 31 IP users individually through the In-Home bus (e.g. door station)
or
Selectively call 31 IP groups (with a maximum of 6 IP users) individually but in total no more than 50 IP users per Gateway through the In-Home bus (e.g. door station)
or
• In a mixed configuration with a maximum of 50 IP users, selectively call individual IP users or IP groups (with a maximum of 6 IP users) through the In-Home bus (e.g. door station)

Connection of bus and IP address (Example)



Siedle In-Home bus		Gateway	IP network		
Bus adresses	**Model**	**Connection of In-Home bus and IP network**	**IP users / IP groups**	**User licences**	**IP address**
[01 03]	Bus call button module: Button 1	**Bus address reference** Virtual user [01 03] to IP user / group: Siedle app	Siedle app	1 Licence	192.168.178.10
[01 04]	Bus call button module: Button 2	**Bus address reference** Virtual user [01 04] to IP user / group: Bus software in-house telephone	Bus software in-house telephone	1 Licence	192.168.178.20
[01 05]	Bus call button module: Button 3	**Bus address reference** Virtual user [01 05] to IP user / group: Group 1 (App + Software client)	Group 1 (App + BSHT)	No licence	No IP address

In the example, 3 In-Home bus addresses are used, 2 IP users (Siedle app for Smart Gateway and bus software in-house telephone) and one IP group are created in the Smart Gateway. Every IP user can be called separately using a call button. For this, one bus address each is required. Another bus address is additionally required to enable separate calls to both IP users as a collective IP group using a 3rd call button.

Menu structure User interface	
Menu level 1	**Menu level 2**
Status	Overview IP users Device information
User	User profile Change the password
Basic settings	Date / time Network Video memory / Door call DTMF Video
In-Home bus	Bus adresses Bus users
Network user	Licences IP users IP groups Telephony link Application software
Help	Documentation Commissioning software Support
System	Protocols Safe/Restore Update Reset
Log out	

Information on programming
In order to use the door intercom system, at least one door call must be programmed in the In-Home bus. Programming is described in detail in the system manual In-Home bus: Video.
In addition to the **basic functions**, you can program additional functions using the **programming software** BPS 650-… . For connecting the PC to the **In-Home bus: Video**, a programming interface PRI 602-… USB and a ZBVG 650-… plug-in card are required.
The Gateway can be integrated into the In-Home bus in 2 ways: Programming with the bus programming software (recommended) or manual programming (Teach-In).

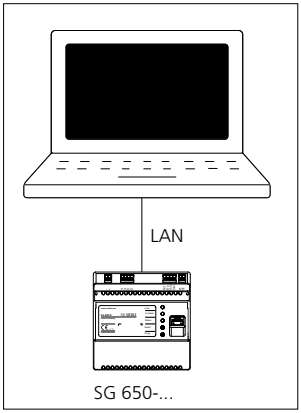
Programming with Bus programming software BPS 650-…
When integrating the Gateway in the In-Home bus using bus programming, a greater functional scope is available at the Gateway (basic functions and supplementary functions).

Manual programming, also called "Teach-In"
When integrating the Gateway in the In-Home bus using manual programming, only individual functions are available at the Gateway. When carrying out manual programming, you can assign only one bus address to the Smart Gateway, to allow either an IP user or an IP group to be selectively called. If this is not adequate, you must carry out programming using the bus programming software. If you decide in favour of manual programming, the steps with bus programming software are omitted.

Remarks on the Finder function
In the bus programming software (BPS), in the Siedle app and in the bus software in-house telephone, the Finder function can be used in order to determine the IP address of the Gateway.
Using the Finder function, you can locate all Gateways existing in the network, provided these are located in the same network as the commissioning PC with bus programming software, the Siedle app or the bus software in-house telephone.
Important: A Gateway can only locate the Finder function in the network if the Gateway and the Siedle app or bus software in-house telephone are in the same subnet (Class C) of your network (i.e. the first three blocks of the local IP address must be the same – e.g. 192.168.178.xxx).
If the Gateway is not located in the same subnet, you will need to connect your commissioning PC/laptop directly to the Gateway to be able to carry out the configuration.

Important:
The Gateway must be operated in the local network using a static IP address (not DHCP operation).

Direct LAN connection
Direct LAN connection between commissioning laptop/PC and Gateway.



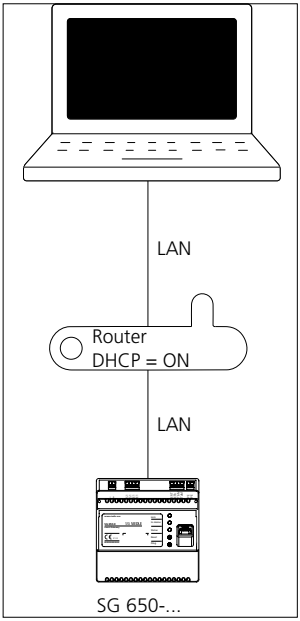
Conditions:
• Gateway and commissioning laptop/PC are ready for operation.
• The network setting of the Gateway is in the as-delivered status (DHCP client active).
• The DHCP client is enabled on your commissioning Laptop/PC, to be able to request a network address from the DHCP server (router/wireless LAN router/managed switch/server).

Procedure:
1 Directly connect the commissioning laptop/PC to the Gateway using a network cable.
2 Open the web browser and enter the IP address 169.254.1.1 of the Gateway.
3 The Login page of the Gateway is opened.

Important:
Your browser must accept cookies, otherwise it will not be possible to log in on the login page.

Accessibility of the Gateway:
The IP address 169.254.1.1 can also have been used by other device manufacturers. This IP address should therefore only be used with a direct LAN connection.

Indirect LAN connection with active DHCP server
LAN connection by an existing network (router/wireless LAN router/managed switch/server) with active DHCP server.



Conditions:
• Gateway and commissioning laptop/PC are ready for operation.
• The network is active.
• Gateway and PC/Laptop are connected to each other by each network cable on an existing network (router/wireless LAN router/managed switch/server).
• The network setting of the Gateway is in the as-delivered status (DHCP client active).
• The DHCP client is enabled on your commissioning Laptop/PC, to be able to request a network address from the DHCP server (router/wireless LAN router/managed switch/server).

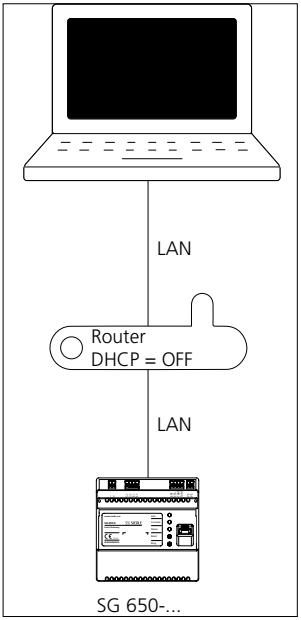
Remarks:
• In the delivery status, the Gateway is delivered with an active DHCP client and requests a network address from the DHCP server (router/wireless LAN router/managed switch/server), whenever a network connection is available.
• Otherwise, find out the IP address of the Gateway either using the Siedle Finder or the bus programming software, via the router/Wi-Fi router/managed switch/server in the area Network/Network settings with the aid of a dedicated network scanner.
• For regular operation, a permanent static IP address is required. This ensures that the Gateway can always be reached under the same IP address.

Procedure:
1 Connect the Gateway via a network cable to the existing network (router / wireless LAN router / managed switch / server).
2 Connect the commissioning laptop/PC via a network cable to the existing network (router / wireless LAN router / managed switch / server).
3 Determine the IP address of the Gateway using one of the previously described possibilities. Using the Siedle Finder, the login page of the Gateway can be opened directly via a web browser.
4 Open the web browser and enter the determined IP address of the Gateway (e.g. 192.168.178.100).
5 The Login page of the Gateway is opened.

Important:
Your browser must accept cookies, otherwise it will not be possible to log in on the login page.

Accessibility of the Gateway:
The Gateway can be reached under the IP address assigned by the DHCP server (e.g. 192.168.178.100).

Indirect LAN connection with inactive DHCP server
LAN connection by an existing network (router/wireless LAN router/ managed switch/server) with static IP adresses (inactive DHCP server).



Conditions:
• Gateway and commissioning laptop/PC are ready for operation.
• The network is active.
• The IP address range (IP address and subnet mask) of the network (router/wireless LAN router/managed switch/server) must be known.For the Gateway and your commissioning laptop/PC you need a different IP address and subnet mask, to be able to connect both devices with the existing network.
• The network setting of the Gateway is in the as-delivered status (DHCP client active). This is necessary for the initial direct LAN connection.
• The DHCP client is enabled on your commissioning Laptop/PC, to be able to request a network address from the DHCP server (router/wireless LAN router/managed switch/ server).

Procedure:
Part A:
6 Directly connect the commissioning laptop/PC to the Gateway using a network cable.
7 Open the web browser and enter the IP address 169.254.1.1 of the Gateway.
8 The Login page of the Gateway is opened.
9 If applicable, select a different language.
10 Enter the user name admin.
11 Enter the relevant password (standard: admin).
12 Click on Log in.
13 The administrator user interface of the Gateway appears.
14 Click on Basic settings > Network.
15 The network settings are displayed.
16 Remove the tick under Obtain IP address automatically by DHCP.
17 The network settings are now highlighted in white and can be changed.
18 Execute the changes at the network settings.
19 Click on the “Apply” button.
20 You have changed the network settings, the Gateway will restart.

Part B:
21 Connect the Gateway via a network cable to the existing network (router / wireless LAN router / managed switch / server).
22 Connect the commissioning laptop/PC via a network cable to the existing network (router / wireless LAN router / managed switch / server).
23 Change the network settings on your commissioning laptop/PC, in accordance with the prescribed network address range (IP address and subnet mask) an save the changings.
24 Open the web browser and enter the static IP address of the Gateway (e.g. 192.168.178.100).
25 The Login page of the Gateway is opened.

Accessibility of the Gateway:
The Gateway is available under the manually assigned static IP address (e.g. 192.168.178.100).

Remark:
For regular operation, a permanent static IP address is required. This ensures that the Gateway can always be reached under the same IP address.

Important:
Your browser must accept cookies, otherwise it will not be possible to log in on the login page.

Commissioning requirements

Standard login data/ Known login data	Standard user name: admin Standard password: admin
Required network properties	Direct LAN connection between the Gateway and commissioning laptop/PC (zero configuration networking: 169.254.1.1) or DHCP-capable network for initial commissioning. For regular operation, a permanent static IP address is required. This ensures that the Gateway can always be reached under the same IP address. Otherwise, find out the IP address of the Gateway either using the Siedle Finder or the bus programming software, via the router/Wi-Fi router/managed switch/server in the area Network/Network settings with the aid of a dedicated network scanner.
Time setting	• Manual time settings: If there is no facility for automatic time setting, the time must be entered manually. • Automatic time setting: You will require an internet connection to a time server in the internet or the address of an internal time server in the LAN in order to adjust this during the configuration. This data must be made available by the customer/system administrator. **Remark:** If the Automatic option has not been selected for Time/date, then the time must be reset after each power failure or reset, as there is no buffer battery. Alternatively, you can operate the Gateway with manual time setting at an uninterruptible power supply.
Sufficient number of user licences	For each IP user (Siedle app, bus software in-house telephone, etc.) one user licence is required. There are 2 user licences contained in the scope of supply. Other user licences can be ordered under **www.siedle.com/mysiedle**.
Necessary commissioning software	• Bus programming software BPS 650-0 – Version: (Latest edition) The bus programming software can be downloaded under **www.siedle.com**. • Siedle finder (component of the bus programming software installation) • Standard web browser (latest version)
Required documentation	• Product information Smart Gateway SG 650-0 • Commissioning instruction • System Manual In-Home bus: Video (Latest edition)
Required hardware	• Commissioning laptop/PC • Network cable (RJ45) • USB cable (A->B) • Programming interface PRI USB 602 • Bus supply unit accessory ZBVG 650-…
Local access points	• Local access to the bus video line rectifier and Gateway • RJ45 connection to the DHCP-capable LAN/IP network, which is located in the direct vicinity of the Gateway.
Necessary operating software/apps	• Bus software in-house telephone for use on Windows-based laptops/tablets/PCs. Download at www.siedle.de. • Siedle App for use on smartphones and tablets with iOs operating system. Download: Via the Gateway from the App Store (Menu Network users > Application software > Siedle App) or via your terminal with direct access to the App Store.

Fulfilling commissioning requirements

In order to allow the Gateway to be commissioned, the following work must have been completed:

1 The door intercom system has been correctly installed/mounted in accordance with the In-Home bus: Video system manual and has been prepared with a programming interface for programming using a PC/laptop (does not apply when programming manually).

2 The geographical position of all devices and all required button assignments/functions for the individual devices are documented.

3 A commissioning PC/laptop with the latest version of the BPS programming software installed is available for commissioning.

4 Network information is available.

5 The commissioning technician has knowledge of network technology.

6 The commissioning laptop/PC automatically refers to its IP address (DHCP = active).

7 The intercom has been completely documented for the In-Home bus and for the IP network.

8 The Gateway has been mounted, is ready for operation, connected to the In-Home bus and the commissioning laptop/PC (directly by LAN cable or via a DHCP-capable IP network).

9 The commissioning laptop (USB) and the bus video line rectifier (RJ45) have been connected via the programming interface (USB/RJ45).

10 The Gateway has been registered with Siedle:
www.siedle.com/mysiedle

11 Any existing updates and the bus software in-house telephone have been saved on the commissioning laptop.

12 The bus programming software BPS 650-0 is ready for operation and there is an active connection to the bus video line rectifier (does not apply when programming manually).

Step-by-step through the commissioning process

The following commissioning steps are described over the following pages:

1 Register product

2 Define the type of programming (manual programming or programming using the bus programming software).

3 Establish the network connection to the Gateway (directly using the LAN cable (Zero Configuration Networking) or indirectly using a DHCP-capable IP network).

4 Downloading and installing the bus programming software (Only when programming with bus programming software).

5 Program/configure the In-Home bus with the bus programming software or with manual programming.

6 Configure the Gateway

7 Install, configure and commission the Siedle app and bus software in-house telephone on the terminals.

8 Complete function check

9 Hand over the complete documentation, system backups and updates to the customer / system administrator.

10 Instruct the customer to issue a new and secure password which must not be known to the person carrying out the commissioning.

Important: Observe all safety and warning instructions! Also observe all other instructions in this document.

Register product

Siedle software is continuously updated and further developed. To ensure that you make use of all the product benefits and to obtain regular future updates, we recommend that you register your product in the My Siedle Service Portal:
www.siedle.com/mysiedle

For registration, you require the MAC address (hardware address of the Gateway: e.g. 00:10:20:30:a1:b2). The MAC address of the Gateway can be found on the packaging, on the device sticker and in the device information of the browser-based user interface.

Procedure:

1 Register your Gateway on the mysiedle service portal.

2 Download existing system updates and save these on your commissioning laptop.

Downloading and installing the bus programming software

For bus programming of the Gateway, you will need the bus programming software BPS 650. In order to determine the IP address of the Gateway, you will require the Siedle Finder. The Siedle Finder is installed at the same time as the bus programming software. The bus programming software can be downloaded under **www.siedle.com**.

Procedure:

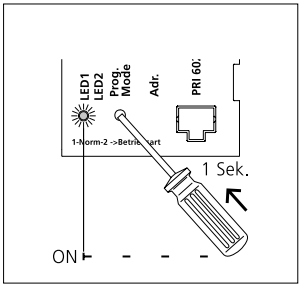
1 Download the bus programming software completely to your commissioning laptop/PC.

2 Install the bus programming software completely on your commissioning laptop/PC.

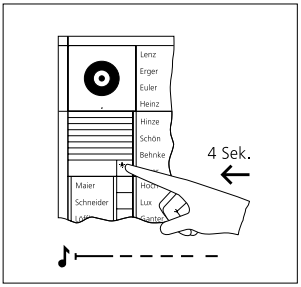
Manual programming
Procedure:
On principle, the In-Home bus can be commissioned and programmed by one person. However, as work has to be executed both at the door loudspeaker and the bus indoor device, we recommend that commissioning be carried out by two people for larger-scale projects.

- Complete the installation
- Check the switch positions at the BNG/BVNG 650-…, in new systems set the switch setting to Norm.
- Activate the programming mode at the bus line rectifier
- Set the door station to the programming mode
- Program the users
- Quit the programming mode

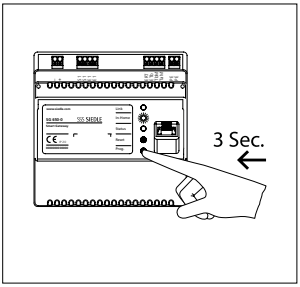
While the bus line rectifier is in the programming mode, several steps can be programmed in sequence. There is no need to quit the programming mode after every operation.



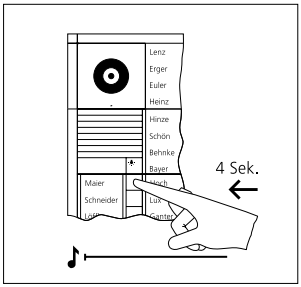
1 Switch on the programming mode. At the BNG/BVNG 650-…, press the programming mode button briefly. The LED 1 flashes in a 2-second rhythm to indicate that the programming mode is active.



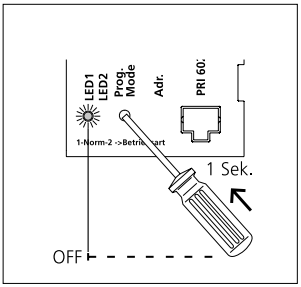
2 At the door station, hold down the light/programming button for 4 seconds. A protracted acknowledgement tone is then audible which is repeated every 5 seconds as long as the programming mode remains active.



3 The In-Home LED at the Gateway lights up in green (ready for operation). Press the Prog. button at the Gateway for 3 seconds. The In-Home LED then flashes green.



4 On the door station, press and hold the desired call button for 4 seconds until a sustained tone can be heard from the door loudspeaker. The call button is now assigned to the bus indoor device.



5 The call button is now assigned to the Gateway and the basic functions of the In-Home bus are set up. Program additional users using the same procedure or quit the programming mode.

Programming using the PC and bus programming software (BPS 650-…)
Log into the Gateway using one of the possible connections. On first registering at the Gateway, messages appear about licensing agreements and product registration:
• To be able to use the Gateway, confirm the licensing agreement with **OK**.
• Confirm the registration prompt with **Register now,** if you have not yet registered, and complete the product registration. If registration is not possible at the current time, click on **Later.** Click on **Do not show again** if you have already registered the product.

Procedure:
1 Start your web browser, enter the IP address of the Gateway (e.g. 169.254.1.1 or 192.168.178.100) and confirm your entry.
2 The Login page of the Gateway is opened. The language of the login page depends on the language settings of your commissioning laptop/PC.
3 If applicable, select a different language.
4 Enter the user name admin if this is not already entered
5 Enter the relevant password (standard: admin).
6 Click on Log in.
7 Confirm the licence conditions with OK.
8 Confirm the registration prompt if you have already registered, otherwise complete the product registration.

Performing a system update
Every time before updating the system (upgrade/downgrade), carry out a complete system backup. Ensure that all system backups are safely and permanently stored. During the update process, the power supply must not be interrupted, as otherwise the Gateway will be damaged. During the update, the status LED flashes. Important: After every system update, the option "Persistently store protocols" is deactivated to enable the flash memory for the updating process. This deletes all saved protocols. You should therefore save all protocols to your laptop/PC before every system update.
The system update only affects the Gateway and the connected hardware. Any available BSHT must be manually updated after the system update.

Update via local update tool
Procedure:
1 To access the latest software update, please download the update tool from www.siedle.com/sg-650
2 Save the file with the extension .exe to your hard drive.
3 Activate the installation process by double-clicking and run the tool.
4 Confirm any pop-up queries about whether you really want to run the tool.
5 Select the network connection via which the Gateway can be reached.
6 On the Gateway's user interface, activate System > Update > Use local update URL
7 Copy the update URL shown in the local update tool and paste it into the Gateway user interface in the following location: System > Update > Use local update URL
8 Click the Set update URL button
9 Click the Start update button
10 The current system version and the update version are shown.
11 Select whether a system backup is available or not needed.
12 Click the Update system button. During this update process, the Gateway and then the connected hardware will be updated to the latest software version – provided a newer version than the one already installed is available.

Important
Do not close the tool until all update processes for all devices have completely finished.

Update via server
If you have a continuous Internet connection, you can also carry out the update via the Siedle update server.

Procedure:
1 On the Gateway's user interface activate the option in the following location: System > Update > Use Siedle update server
2 Click the Check for updates button.
3 The current system version and the update version are shown.
4 Select whether a system backup is available or not needed.
5 Click the Update system button. During this update process, the Gateway and then the connected hardware will be updated to the latest software version – provided a newer version than the one already installed is available.

Change user profile / password
Procedure:
1 Click on User > User profile.
2 Change/Complete the input fields.
3 Confirm your input by clicking on Apply.
4 Click on User > Change password.
5 Enter the old password (Standard: admin).
6 Issue a new password which complies with the stipulations.
7 Click on Apply in order to change the password.

Setting the date and time
For correct local time, and winter/summer time changeover, the relevant time zone must be set. In the as-delivered status of the Gateway, the following values are pre-set:
• German time zone (UTC+01:00)
• Automatic summer time switchover disabled
• Manual date and time input activated

Procedure:
1 Click on Basic settings > Date / time.
2 Select your time zone.
3 Click on automatic summer time setting if your location changes over between summer and winter time.
4 Select how you wish the time setting to take place (automatically/ manually). Observe the information on time setting in the commissioning requirements.
5 Click on Apply to save your settings/changes.
6 You are automatically logged out of the Gateway.

Check/change the network settings

Procedure:
7 Click on Basic settings > Network.
8 Check the network settings for correctness. Change the IP settings if other IP addresses are required or necessary.
9 To create a connection with the Internet, the Gateway requires valid network information. If this is entered incorrectly, no connection can be established with the time server in the Internet, or the Apple Push Notification Service for the Siedle app cannot be reached.
10 Check the settings you have carried out for correctness. Click on Apply to save any changes you have made.

Setting video memory/door call
In the menu **Basic settings > Video memory/Door call,** you can carry out settings relating to the video memory and door call. Both setting ranges are visually separated by a frame.

Procedure:
1 Click on Basic settings > Video memory/door call.

Video memory settings:
2 Activate the automatic video memory if you wish an image to be taken of the person calling after every door call.
3 Activate the manual video memory if you wish users of the Siedle app and of the bus software in-house telephone to be able to manually take additional images.
4 Set the time in seconds after which you wish an image to be automatically taken after a door call (standard setting: 5 seconds).

Door call option settings:
5 Activate the direct door call if you wish users of the Siedle app and of the bus software in-house telephone to be able to call door call stations directly.
6 Activate the camera observation if you wish users of the Siedle app and of the bus software in-house telephone to be able to display a live picture from the respective accessible bus/IP camera.
Existing bus cameras can be selected directly using the Siedle app or the bus software in-house telephone.
IP cameras can be additionally integrated into the bus software in-house telephone and the Siedle app.
Camera observation enables live streaming of the picture from any accessible camera.
This requires the bus cameras for the camera observation function to have been activated in the Gateway (Basic settings> Video memory/door call >Activate camera observation) and all IP cameras are directly integrated into the bus software in-house telephone (BSHT: Settings> IP cameras > Add IP camera). In the bus software in-house telephone, you can select the individual bus/IP cameras in the Cameras menu and stream the live picture. With the Siedle app, you can select the bus cameras in the Cameras menu (camera symbol).
7 If you install a storey call button in your building, this can be connected directly to the Gateway. However, it is only possible to select a user for the storey call once you have created an IP user / IP group.

PAL/NTSC setting
The standard bus camera on the door supports the PAL colour transmission system.
If an NTSC camera is used on the door, then the camera mode must be changed in the Gateway's basic settings.

Procedure:
8 Click on Basic settings > Video.
9 Activate NTSC camera mode.
10 Click on the "Apply" button.

Creating IP users
One licence is required per IP user. There are 2 user licences for IP users contained in the scope of supply. If you require additional user licences, these can be ordered from Siedle at **www.siedle.com/mysiedle** and imported into the Gateway. For subsequent login of an IP user at the Gateway, the login data issued in the Gateway will be required:
User name (e.g. user0001)
Password
IP address of the Gateway (e.g. 192.168.178.100)

Procedure:
1 Click on Network users > IP users.
2 Click on Create IP user.
3 Select a user type (e.g. Siedle iPhone/iPad app).
4 Complete the information.
5 Issue a password according to the system requirements.
6 Select the In-Home bus address for the IP user (bus address reference). As standard, the Gateway is assigned one bus address in the In-Home bus.
(For each IP user / group which you wish to call separately, an additional In-Home bus address must be reserved via the Gateway.)
7 Click on Save.

Deleting IP users
All IP users which are registered at the Smart Gateway can only be deleted via the browser-based user interface of the Smart Gateway so that they are no longer displayed as internal users. If a smartphone/table or PC/laptop with registered app/BSHT is switched off, defective or removed from the reception range of the WiFi router/local area network, or if the app / BSHT is uninstalled, the created IP user is still displayed as an internal user, even if it can no longer be reached. In the Status > IP users menu, all the created IP users are listed with the respective login status (idle/offline/busy/unknown).
The user can only be reached in Idle login status.

Creating IP groups
If several IP users have to be called over the same call button, you can collate these in one IP group. To allow the IP group to be reached via the In-Home bus, a free In-Home bus address must exist.
An IP Group can contain up to 6 IP users.

Procedure:
1 Click on Network user > IP groups
2 Click on Create IP group.
3 Assign the group name.
4 Select the In-Home bus address through which you wish this group to be reachable (bus address reference).
5 Click on Add IP user.
6 Select the IP users for the IP group by clicking on Add and confirming your selection with Close.
7 Save the IP group by clicking on Save.

Storey call – Defining IP users/ IP group
The call button for the storey call is connected directly at the Gateway (terminal ERT and ETb) and is therefore independent from the rest of the In-Home bus. A door call via the storey call is processed directly in the Gateway.
A storey call can be assigned to one or more IP users (IP group). The relevant IP users/IP groups must have already been created.

Procedure:
1 Click on Basic settings > Video memory/door call.
2 Under users for storey calls, select the relevant IP users / IP group in the drop-down menu.
3 Click on Apply to save your settings/changes.

Registering IP users
To allow the IP users to be connected to the Gateway, the Gateway must be capable of being reached over the network by the relevant IP user.

Programming in the In-Home bus
Procedure:
1 Connect the PC/laptop to the programming interface using a USB cable.
2 Start the programming software BPS 650-…
3 Click on **Connect,** to establish an active connection to the In-Home bus.
4 Click on **Search** in order to export the system.
5 Click on **Find all and add.**
6 Confirm the dialogue: **Do you also want to enter the configuration of all In-Home devices?** with **Yes.** The In-Home bus is completely exported. After terminating the process, you will see a device structure at the left-hand side of the BPS software which contains all the devices detected in the In-Home bus.
7 Configure all devices and the Gateway.
8 Enter easily understandable and meaningful device designations, as these will later appear on all displays.
9 Click on the Gateway symbol.
10 Select all the devices (eg. door station) that should be accessible via the Gateway IP side.
11 Export the XML configuration file for the Smart Gateway (BPS: SG 150/650 > Create configuration file …) and save this (e.g. config.xml) on your commissioning laptop.

12 Save the BPS system configuration on your PC/laptop.
13 Click on the BPS taskbar on **Write.**
14 Click in the confirmation dialogue on **Select all.**
15 Click on **Write configuration.**
The BPS configuration is saved.
16 Disconnect from the BPS and end the programming software.
Import In-Home bus configuration
In order to allow the In-Home bus configuration to be transferred to the Gateway, you will require the XML configuration file of the Gateway (e.g. config.xml), which was exported with the bus programming software.

Procedure:
1 In the Gateway, click on In-Home bus > Bus users.
2 Click on Select file to select the XML configuration file.
3 Click on Upload file to import the configuration file into the Gateway.
4 Edit the individual bus users by clicking on the pencil symbol and entering the information.
5 Click on Apply to save your settings/changes.

Siedle app
The Siedle App is the software-based solution to allow your smartphone/tablet to be integrated as a user in the door intercom system. You must install and start the Siedle App on your smartphone/tablet and log in using the login data assigned in the Gateway. For successful login, the smartphone/tablet must be in the same LAN/Wifi network as the Gateway.

Always use the latest version of the Siedle app!

Procedure:
1 Load and install the Siedle app on your smartphone/tablet. You can obtain the Siedle app from the Apple App Store.
2 Start the Siedle app on your smartphone/tablet.
3 Confirm the microphone enabled status of the Siedle app on your smartphone/tablet.
4 Enter the login data assigned in the Gateway on the login interface of the Siedle app:
5 IP address (e.g. 192.168.178.2) or hostname
6 User name (e.g. user0001)
7 Password
8 Confirm your inputs.
9 Confirm the microphone enabled status of the Siedle app on your smartphone/tablet.

Important: Should you have changed the "Control Port (TCP)" in the "Port configuration" area in the "Basic settings> Network" menu of the Gateway, when registering the Siedle app and also the bus software in-house telephone you must enter the IP address of the Gateway together with the changed control port. Input takes place in the "Server/Gateway IP address" field in the form ([IP address]:[replacement port]) – (e.g. 192.168.178.2:55555). In the as-delivered status, port 10000 is used as the control port (TCP).

Bus software in-house telephone
The bus software in-house telephone (BSHT) is the software-based solution to allow your PC/laptop/tablet to be integrated as a user in the door intercom system. You must install and start the BSHT on your PC/laptop/tablet and log in using the login data assigned in the Gateway. To allow the BSHT to be operated, you will additionally require a headset or a microphone and loudspeaker ready for operation.

Procedure:
1 Download the bus software in-house telephone (BSHT) from the Siedle download area to your PC/laptop.
2 Install the BSHT on your PC/laptop.
3 Start the BSHT.
4 Enter the login data assigned in the Gateway:
5 IP address (e.g. 192.168.178.2)
6 User name (e.g. user0002)
7 Password
8 Activate the Automatic login option if you wish the bus software in-house telephone to log in automatically on every program start.
9 Click on Login in order to start the bus software in-house telephone.
10 Click on Settings (cog symbol) in order to configure the bus software in-house telephone as you wish.

Note: To end the BSHT, click on **X** in the top right-hand corner. Alternatively, you can quit the bus software in-house telephone by shutting down your PC/laptop. If you wish to log out, click on logout (door symbol with arrow pointing away) in the top right-hand area of the Settings menu.
The window size of the bus software in-house telephone can be manually changed within a prescribed range both at any side or in any corner.

Procedure:
1 Position the mouse pointer at the side/corner of the bus software in-house telephone which you wish to change in size, until a double-sided arrow (<–>) appears.
2 Click on the left-hand mouse button and hold it down.
3 Change the window size of the bus software in-house telephone.
4 Release the left-hand mouse button.

Important: Should you have changed the "Control Port (TCP)" in the "Port configuration" area in the "Basic settings> Network" menu of the Gateway, when registering the Siedle app and also the bus software in-house telephone you must enter the IP address of the Gateway together with the changed control port. Input takes place in the "Server/Gateway IP address" field in the form ([IP address]:[replacement port]) – (e.g. 192.168.178.2:55555). In the as-delivered status, port 10000 is used as the control port (TCP).

Integrating the IP camera in the Siedle app / BSHT
To allow an IP camera to be integrated into the Siedle app or the bus software in-house telephone, you need the URL of the video stream you wish to transmit from the IP camera. An URL contains the information with which the video stream of an IP camera can be reached in the network and generally contains an IP address or host name, as well as further-reaching information about the video stream (e.g. http://192.168.178.50/mjpg/video.mjpg? streamprofile = SiedleJPEG). The precise URL of your IP camera can be found in the technical documentation from the IP camera manufacturer.
Please note that the live stream from your IP camera can only be displayed in the Siedle app / bus software in-house telephone if it is transmitted in MJPG video format. Other video formats cannot be processed in the Siedle app / bus software in-house telephone.
Important: The IP camera used must be capable of transmitting the video stream requested by the Siedle app/bus software in-house telephone over the connection (http/TCP connection) which has already been established by the Siedle app/bus software in-house telephone. Other variants of video stream transmission (MJPEG stream) are not supported by the Siedle app/bus software in-house telephone.
Every IP camera can be inscribed in the Siedle app/bus software in-house telephone with its location, in order to allow a distinction to be made if the configuration contains more than one IP camera.
For this reason, inscribe every IP

camera with a unique location designation (e.g. West exit, ground floor). Confirm your input with OK in order to integrate the IP camera into the Siedle app/bus software in-house telephone. If your entries were correct, you will be able to watch the live image using the camera observation function.

Remarks:
In the configuration menu of the IP camera, you must select / activate the video stream profile / video codec "Motion JPEG" or "MJPEG". The video stream URL for image transmission can be taken from the configuration menu of the IP camera.

Procedure:
1 Start the Siedle app or the BSHT.
2 Open the "Settings > IP cameras" menu
3 Click on "Add IP camera".
4 Enter the location name (e.g. West exit ground floor).
5 Enter the URL of your IP camera's video stream.
6 Save your inputs.
7 In the Siedle app or BSHT, change to the "Cameras" menu.
8 Access the IP camera you configured so that you can carry out a function test.

Integrating an IP camera in Siedle Axiom
See the Siedle Axiom operating instructions for information on how to link the Siedle Axiom to an IP camera.

Telephony connection Siedle Axiom
External telephone calls (public network telephony) are possible with Siedle Axiom if the device is connected to a telephone system via the Gateway.
To do so, a telephony licence is required. You can find this licence at www.siedle.com/mysiedle

The connection to the TC system must be configured as SIP client or SIP trunk in the Gateway.
• A Siedle Axiom can be connected via a SIP client.

Connection via SIP client
Procedure:
1 Create the Siedle Axiom in the Gateway as an IP user.
2 Under Network users > Telephony connection, open the SIP client that you want to use to link Siedle Axiom.
3 Select the relevant Siedle Axiom under call destination.
4 Click on the "Apply" button.
5 Siedle Axiom is now connected to the TC system.

Connection via SIP trunk
In the case of a SIP trunk, Siedle Axiom does not need to be explicitly connected. Siedle Axiom is then handled the same as any other TC telephone.
If a SIP trunk has already been created in the Gateway, then no additional SIP clients can be configured for Siedle Axiom. You can only configure a telephony connection.

Telephony connection Third-party devices
From release V. 1.3, it is possible to connect individual SIP telephones or entire TC systems.
The SIP/TC telephones can be called from the door or also from internal bus telephones.
A user licence is required for each connected telephone. A telephony licence is required for each connected TC system. The user licences can be ordered under www.siedle.com/mysiedle.

Creating a SIP telephone
SIP telephones are created in the IP users menu.

Procedure:
1 Click on Network users > IP users.
2 Click on Create IP user.
3 Select SIP telephone under User type.
4 Assign a name, which will later enable unique identification and assignment.
5 Enter the SIP user name for the telephone. (Also configure in the telephone.)
6 Enter the SIP password for the telephone. (Also configure in the telephone.)
7 Under Audio packet size, select the value supported by the telephone.
8 Select the supported DTMF mode.
9 Select the In-Home bus address for the IP user (bus address reference). As standard, the Gateway is assigned one bus address in the In-Home bus.
(For each IP user / group which you wish to call separately, an additional In-Home bus address must be reserved via the Gateway.)
10 Click on Save.

Connecting the TC system
Telephone systems are created in the Telephone connection menu as a SIP trunk or as a SIP client.
The connection mode depends on the configuration of the TC system.

Procedure:
1 Click on Network user > Telephony connection.
2 Click on Create connection.
3 Select the required mode (SIP trunk or SIP client) under Connection type.
4 Assign a name, which will later enable unique identification and assignment.
5 Enter the IP address of the TC system under Address.
6 Enter the port specified by your TC system under Port.
7 Select the value supported by the TC system under Audio packet size.
8 Enter the name that the Gateway uses to log in to the TC system under TC login name.
9 Enter the password that the Gateway uses to log in to the TC system under TC password.
10 When logging in with SIP client, enter the realm specified by the TC system, if required.
11 When logging in with SIP client, enter the user authentication specified by the TC system, if required.
12 Select the supported DTMF mode.
13 If required, define a call number prefix.
14 Click on the "Apply" button.

Creating a TC telephone
Telephones of a telephone system are created as a TC telephone. TC telephones are registered as individual IP users.
Important: Before a TC telephone can be created, a TC system must have been created as a new SIP trunk or SIP client in the Telephone connection menu.

Procedure:
1 Click on Network users > IP users.
2 Click on Create IP user.
3 Select TC telephone under User type.
4 Assign a name, which will later enable unique identification and assignment.
5 Under Telephony connection, select the TC trunk or SIP client with which the virtual TC telephone is linked.
6 Enter the external extension: The call number of the TC telephone in the TC system.
7 Select the In-Home bus address for the IP user (bus address reference). As standard, the Gateway

is assigned one bus address in the In-Home bus.
(For each IP user / group which you wish to call separately, an additional In-Home bus address must be reserved via the Gateway.)
8 Click on Save.

SIP telephone + BSHT
SIP telephones can be used via CTI together with a bus software in-house telephone (BSHT). The telephone then carries out the audio functions of the BSHT.

Procedure:
1 In the IP users menu, select the relevant telephone.
2 Click the pen symbol to open the input screen for the selected telephone.
3 Under CTI terminal, select a BSHT (that has already been created).
4 Click on the "Apply" button.

TC telephone + BSHT
TC telephones can be used via CTI together with a bus software in-house telephone (BSHT). The telephone then carries out the audio functions of the BSHT.

Procedure:
1 In the IP users menu, select the relevant telephone.
2 Click the pen symbol to open the input screen for the selected telephone.
3 Under CTI terminal, select a BSHT (that has already been created).
4 Click on the "Apply" button.

SIP/TC telephone + Video
For telephones with video display, the camera's video signal can be decoupled at the door.

Procedure:
1 In the IP users menu, select the relevant telephone.
2 Click the pen symbol to open the input screen for the selected telephone.
3 On the input screen, activate video decoupling and select the transmission mode supported by the telephone (MJPEG stream or single frame call-up). The video URL needed for the telephone is then shown in white.
4 Click on the "Apply" button.
5 If the telephone is created as a new IP user, the required video URL only appears after it has been saved.

Mobile network connection

Sequence: Install the mobile network connection

1 Check and fulfil the minimum requirements. 25

2 Update the Gateway 25

3 Update the Siedle app on the mobile terminal. 25

4 Select the DynDNS provider and set up access. 25

5 Change the Gateway configuration. 26

6 Change the router configuration. 27

7 Commission the Siedle app. 28

8 Complete function check. 30

Mobile network connection
From Release V 1.2, a mobile phone network connection can be configured for the Gateway over UMTS/LTE (3G/4G).

Note:
Setting up the mobile phone network connection calls for an expert in network technology. We recommend if necessary contacting the SG Support from Siedle (chargeable service) by phoning +49 7723 63-696. The form to request support can be found at www.siedle.de/sg-650.

Sequence:
1 Check and fulfil the minimum requirements.
2 Update the Gateway
3 Update the Siedle app on the mobile terminal.
4 Select the DynDNS provider and set up access.
5 Change the Gateway configuration.
6 Change the router configuration.
7 Commission the Siedle app.
8 Complete function check.

Minimum requirements for stationary internet connection
• Internet protocol: IPv4 connection with static or dynamically changing public IP address.
• Download: Constant 512 kBit/s (exclusively for this application).
• Upload: Constant 1 kBit/s (exclusively for this application).
• Continuous connection to the Internet.
• SIP-VoIP: Transmission of SIP-VoIP data packages not originating from the provider (internet telephony) enabled.

Note:
• If you wish to run security-critical services, the network administrator may have to set up additional security services (such as additional routers, firewalls etc.).

Minimum requirements for mobile terminals
• Internet protocol: IPv4 connection with static or dynamically changing public IP address
• Download: Constant 1 MBit/s (exclusively for this application)
• Upload: Constant 512 kBit/s (exclusively for this application)
• Stable Wi-Fi and UMTS/LTE connection (3G/4G)
• SIP-VoIP: Transmission of SIP-VoIP data packages not originating from the provider (internet telephony) enabled
• Optionally: VoLTE services (Voice over LTE). When using a mobile phone network over LTE, an actively held door call will not be disconnected by an incoming mobile phone call. The door call can be continued as soon as the incoming call has been rejected or terminated.
• Operating system up to date.
• Completely installed Siedle app from version 2.4.

Note:
The download and upload speeds in mobile phone networks are always dependent on several factors and often behave dynamically.

Minimum requirements for routers
• The DSL router must be capable of complete configuration over an administration user interface.
• DynDNS access or alternatively a static public IP address.
• The router's firmware must be fully up to date.
• Port forwarding is possible.

Note:
Router-specific safety settings may not impair or prevent the internal and external accessibility of the Gateway.

Update the Gateway
1 Log in to the Gateway.
2 Change to the "System > Update" menu.
3 Note down the entry in the line "System version".
4 Search for the Smart Gateway SG 650 product page on the Siedle website.
5 In the Gateway download area, click on Firmware.
6 Check whether there is a higher firmware version than the one installed on your Gateway.
7 If there is a higher firmware version available, save this to your computer.
8 Carry out a system update of the Gateway (see also under Performing a system update).

Update the Siedle app on the mobile terminal
Install the latest version of the Siedle app on the mobile terminal, or update already installed older versions (see also Commissioning the Siedle app for Smart Gateway).

Select the DynDNS provider and set up the access
If the stationary Internet connection has a static public IP address, you can skip this step.

If the Internet access only has a dynamic IP address (with daily forced disconnection and change of public IP address), a dynamic DNS access is required.
When selecting the DynDNS provider, note that the DynDNS access enables direct or real time synchronization of the public IP address and the domain name.

Procedure:
1 Check whether the router can be configured with any optional DynDNS provider or only a limited selection is possible.
2 Create a DynDNS access with your preferred provider.
3 Note the assigned DynDNS domain, the access data (user name and password) and the email address

stored by the DynDNS provider for subsequent set-up at the router and at the gateway.

Remarks:
• Always issue lengthy secure passwords (including upper and lower case letters, numbers and symbols).
• After a forced disconnection, it can take some minutes until the synchronization with the DynDNS access is complete.

Change the Gateway configuration
To allow the mobile phone network connection to be set up, the "Port configuration" and "External network access" areas must be fully configured. Depending on the services already operated by the customer, it is possible that the standard settings will have to be changed.

Important:
When using the mobile phone network, the SG must be operated using a static IP address in the local network (not DHCP operation).

Procedure:
Log in to the Gateway.
1 Change to the "Basic settings > Network" menu.
2 In the area "IP settings", disable the option "Automatically purchase IP address through DHCP".
3 In the "IP address" field, enter the required static local IP address for the Gateway (e.g. 192.168.178.222). This IP address is specified by the network administrator.
4 Check the existing entries in the fields "subnet mask", "gateway" and "DNS server", and correct or complete them. All network data is made available by the network administrator. These entries refer to the router in the customer network.
5 Change to the area "External network access".
6 Tick the box "Activate external network access".
7 In the field "Dynamic DNS Domain" enter either the static public IP address or the full DynDNS domain name assigned by the DynDNS provider.
8 In the field "STUN server", enter the domain name of the Siedle STUN Server service "stun.siedle.com".
9 In the field "STUN server port" enter the default port "3478".
10 In the field "External SIP port (TCP)" enter the default port "5070".
11 Change to the area "Port configuration". This area is preconfigured with the default values recommended by Siedle.

Note:
Only change the values specified here if this is urgently necessary (e.g. collision of the port values with non-changeable existing services of the customer).

Important:
If you change the "control port (TCP)", when registering all IP clients (Siedle app and bus software in-house telephone) you must also specify the changed port (e.g. 9999) when logging into the IP address field (e.g. 192.168.178.222:9999). Otherwise you will not get a connection. The change of other ports is communicated on first registration of IP clients from the Gateway.
12 Check all inputs and existing entries for correctness once again.
13 Click on "Apply" to save your changes in the system.

Change the router configuration
As standard, the Firewall protects the router from all incoming external enquiries from internet. To enable external access to the Smart Gateway over the router, externally incoming enquiries must be forwarded to different ports with the aid of port forwarding to the local IP address of the Smart Gateway. This port forwarding function is set up in the router located at the internet connection.
If the internet connection does not have a static IP address, the DynDNS access must be configured at the

Standard settings – port configuration

Designation	Start port	End port
SIP port (TCP/UDP)	5060	-
Control port (TCP)	10000	-
Audio ports (UDP)	10000	10100
Video ports (UDP)	20500	20550
Video ports (TCP/UDP)	20500	20550

Standard settings – external network access

Designation	
Dynamic DNS domain	DynDNS domain of the DynDNS provider (e.g. my_dynamic_domain_name.dyndns.com)
Static public IP address (alternatively to the DynDNS domain)	Either standard entry or customer-specific entry (e.g. 10.11.12.13).
STUN server	stun.siedle.com
Start port	**End port**
STUN server port	3478	-
External SIP port (TCP)	5070	-

router. This means that the router and Smart Gateway can always be reached over the same domain name from the Internet, although the dynamic public IP address of the router changes daily.

Remarks:

• Port forwarding (as a possible point of attack) represents a potential danger for the open network security of the customer network. Port forwarding configured must therefore be performed as described without fail. No forwarded ports should be communicated to third parties or unknown persons. This applies equally to the domain of the DynDNS access.

• Due to the wide diversity of routers available on the market, within the scope of these operating instructions it is not possible to enter into the detailed procedure necessary for each individual router. These instructions describe the generic procedure.

• The IPv4 forced separation which takes place for technical reasons in internet connections with dynamically changing public IP address must be set to a time at which the Siedle app for Smart Gateway is not being used (e.g. at night), as otherwise there will be brief (daily) interruption of services. The Siedle app for Smart Gateway will then be temporarily unavailable.

Procedure:

Step 1 – set up port forwarding

1 Log into the router.
2 If necessary, change to the "Expert view" / "Extended view".
3 Change to the relevant menu/submenu in order to configure port forwarding (e.g. port forwarding, port enabling, port regulation or similar).
4 Configure the port forwarding for all 4 ports / port ranges in accordance with the table "Configuration of port forwarding".
5 Check all the settings you have carried out for correctness.
6 Save your inputs.

Step 2 – set up DynDNS access

1 Change to the area of the router in which you can configure DynDNS access. Select one of the offered DynDNS providers if applicable or enter the name of the required provider.
2 In the field "Domain name" (or similar), enter the DynDNS domain issued by your DynDNS provider (e.g. my_dynamic_domain_name.dyndns.com).
3 Provider-dependent: In the field "email address", enter the email address stored by the customer on registration.
4 In the field "User name" (or similar), enter the user name of the DynDNS access specified by the customer.
5 In the field "Password" (or similar), enter the password of the DynDNS access specified by the customer.
6 Activate the DynDNS.
7 Save your inputs in the router.

Note:

If further entries are required, you can find these out from the website of the selected DynDNS provider.

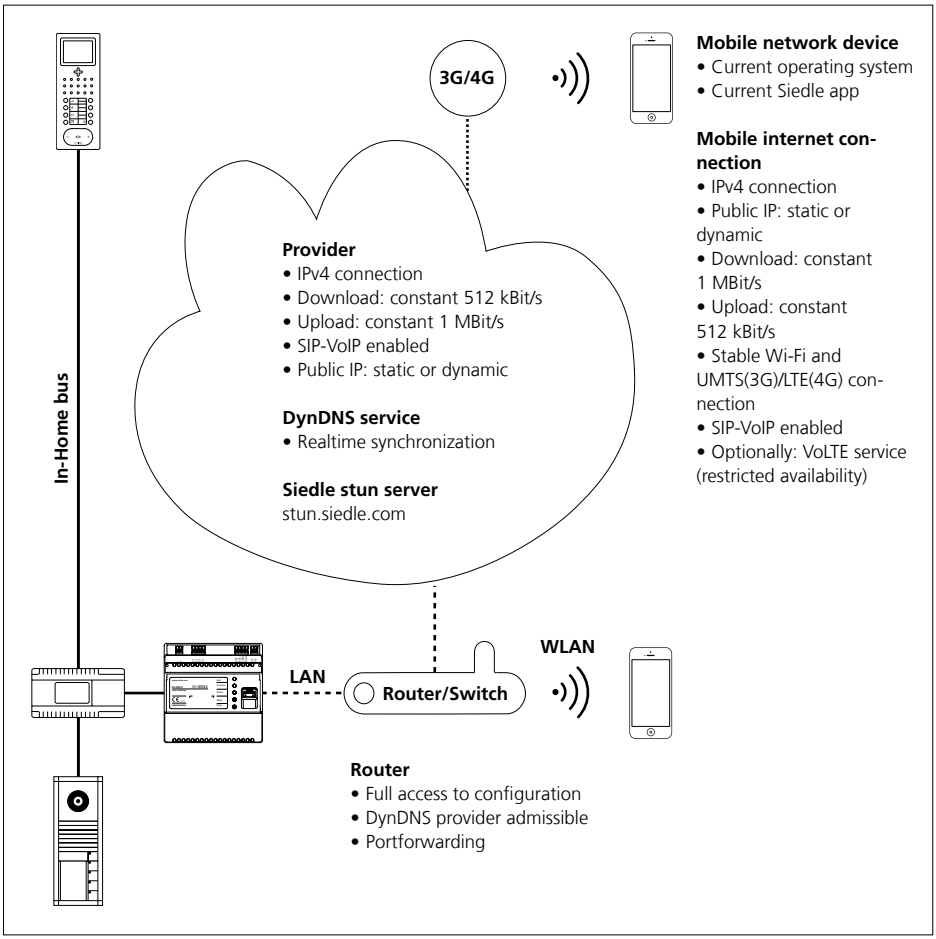
Configuration port forwarding

Port forwarding	**Control port (TCP)**	**Audio ports (UDP)**	**Video ports (TCP/UDP)**	**External SIP port (TCP)**
Source IP address	all	all	all	all
Source protocol (external)	TCP	UDP	TCP	TCP
Source start port (external)	10000	10000	20500	5070
Source end port (external)	10000	10100	20550	5070
Target IP address	Static IP address of the Gateway	Static IP address of the Gateway	Static IP address of the Gateway	Static IP address of the Gateway
Target protocol (internal)	TCP	UDP	TCP/UDP	TCP
Target start port (internal)	10000	10000	20500	5070
Target end port (internal)	10000	10100	20550	5070
Activate port forwarding (enable)	Yes	Yes	Yes	Yes

Step 3 – test the DynDNS connection
Test whether router access over the DynDNS domain allocated by the DynDNS provider works:
1 Connect a computer to the local network of the configured router. It must be able to establish a connection to the internet.
2 At your computer, open the program run function [Windows button and + "R"].
3 In the line "open" enter the command "cmd" in order to open the Windows prompt.
4 In the Windows prompt, enter the command: nslookup [your domain from the DynDNS provider] (e.g. nslookup my_dynamic_domain_name.dyndns.com).
5 Confirm your input with the Enter button.
6 If everything is in order, you will receive a confirmation notice in your DynDNS domain and the currently stored public IP address appears.
7 Compare the displayed IP address from the confirmation notice with the public IP address displayed on the router overview (start page).
8 If both IP addresses are identical, the DynDNS connection is working.
9 Make a note of the public IP address.
10 If you wish to check how long it can take to update the IP address with your DynDNS provider, briefly interrupt the connection between your DSL router and the internet connection. Repeat the process with the connection test again at short intervals in succession until a different IP address is displayed as the result message.

Commission the Siedle app
1 Activate the Wi-Fi connection at the mobile terminal and connect to the local network.
2 Start the Siedle app.
3 Enter the local static IP address of the Gateway (e.g. 192.168.178.222).
4 Enter the login data of the IP user connected in the Gateway:
• User name of the IP user (e.g. user0001).
• Password of the IP user.
5 Confirm your inputs.
6 Carry out a complete function test with the Siedle app.
7 The function test must be carried out over the local Wi-Fi connection and over the external mobile phone data network.

Infographic: Mobile phone network requirements



Reset or check the settings

Resetting the system
To allow the as-delivered status to be restored at the Gateway, the Gateway must be reset. All settings / configurations are reset to the as-delivered status in this process.

A confirmation prompt appears which you have to confirm. If you reset the system to the as-delivered status, any settings, logs, operating data (e.g. image) which are not backed up will be completely lost.

Important: After every system update, the option "Persistently store protocols" is deactivated to enable the flash memory for the updating process. This deletes all saved protocols. You should therefore save all protocols to your laptop/PC before every system update.

Procedure:
1 Click on the menu System > Reset.
2 Click on Restore as-delivered status in order to reset the Gateway.
3 In response to the confirmation prompt, click on Yes if you wish to reset the Gateway.

Restarting the Gateway
If the IP settings have been changed in the IP network with DHCP operation, the Smart Gateway has to be restarted. A restart corresponds to switching the power supply to the Smart Gateway off and on again. After a restart, the Smart Gateway again requests an IP address in DHCP operation. It is possible that the Smart Gateway can be reached under a different IP address than before the restart.

Procedure:
1 Press the Reset button at the Gateway for 1 second.
2 The Gateway is restarted and obtains the IP settings.

IP address and password reset
You can reset the settings for the IP address and the password for login at the Gateway without the need to access the user interface. This may be necessary if the customer/system administrator no longer knows the password or due to IP address changes in the IP network, the Gateway can no longer be addressed with a permanently assigned IP address in the changed network.

Procedure:
3 Press the programming button at the Gateway for at least 10 seconds and hold it down until the status LED starts flashing red.
4 The status LED at the Gateway flashes red for a period of 3 seconds.
5 Release the programming button within the 3-second flashing phase and press it again within the 3-second flashing phase.
6 The settings for the IP address and the password are reset to the as-delivered status.
7 Determine the IP address of the Smart Gateway using the Siedle finder. Alternatively, the IP address of the Smart Gateway can be determined through the DHCP server or using your own network scanner.
8 Log in to the Gateway.
9 Issue a new password which complies with the stipulations.

DHCP server – Changes
If the DHCP server (Router/Wi-Fi router/managed switch/server) is exchanged in your network or its configuration is altered, the Smart Gateway can be assigned a new IP address and would then no longer be capable of being accessed. In such a case, registration of the Siedle app for Smart Gateway and of the bus software in-house telephone has to be carried out using the new IP address of the Smart Gateway. The new IP address of the Smart Gateway can be determined using the finder function.

Carry out a function check
Procedure:
1 Carry out a complete function test with all bus and IP users and all the functions you have set up.
2 Back up the In-Home bus configuration and the configuration of the Gateway on your commissioning laptop.
3 Hand over all the files (system backup, update, licence and configuration files from the BPS for the In-Home bus and the Gateway), the system documentation and the changed access data to the customer/system administrator.
4 After transferring, delete all commissioning files from your commissioning laptop.
5 Inform your customer/the system administrator that after completion of the commissioning process, a new access password must be issued without fail for the Gateway which may be unknown to you.

Reserving bus addresses
As standard, the Gateway is assigned one bus address in the In-Home bus. An IP user or an IP group made up of at least 2 IP users could then be called using this bus address.
In order to allow additional IP users/ IP groups (e.g. Siedle app or bus software in-house telephone) to be called separately via the In-Home bus, the Gateway requires additional In-Home bus addresses.
For each IP user / group which you wish to call separately, an additional In-Home bus address must be reserved via the Gateway.

Remark:
Only freely available In-Home bus addresses can be reserved. If more In-Home bus addresses are requested than are available, the maximum quantity of free In-Home bus addresses in the relevant bus line are reserved in the Gateway.

Example:
At the Gateway, you are operating one Siedle app for Gateway and one bus software in-house telephone. Both IP users should be capable of being called separately.
For the Gateway, only one In-Home bus address would be assigned as standard. This bus address could therefore only be assigned to an IP user or to a group with several or all IP users. All other network users would not be able to be called via the In-Home bus.

Solution:
You will require an additional In-Home bus address in order to be able to call both IP users separately.

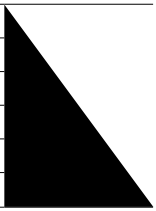
Procedure:
1 Log in to the Gateway.
2 Click on In-Home bus > bus addresses.
3 Click on Reserve bus address(es).
4 Enter the number of bus addresses you wish to reserve.
5 Click on Apply in order to start the reservation process.
6 In the header of the Gateway, the following message appears: Searching for reservable bus addresses in the In-Home bus. The search can take several minutes.
7 During the active search, the In-Home LED flashes at the Gateway and the LED1 flashes on the BNG/ BVNG.
8 If the required number of In-Home bus addresses has been reserved, the following message appears: Reservation successfully completed.
9 Start the programming mode at the bus video line rectifier, and end it after 2 seconds at the earliest.
10 The reserved In-Home bus address(es) has/have been assigned to the Gateway and can be used for programming/configuring the In-Home bus.
11 Repeat the steps for programming with PC and Bus programming software BPS 650-…

Import licences
There are 2 user licences for IP users contained in the scope of supply.
For each IP user / IP group (Siedle App for Smart Gateway or bus software in-house telephone) you wish to be able to call separately, you will require a user licence.
A telephony licence is required for each connected TC system.
A telephony licence is not included in the scope of supply.
If you require additional licences, these can be ordered from Siedle (www.siedle.de/mysiedle) and imported into the Gateway. Accessing is only possible subject to prior product registration.

Remark:
To import the user licences, a licence file is required with the file suffix .xml.

Procedure:
1 Click on Network users > licences.
2 Click on Select file …
3 Select the licence file supplied by Siedle (e.g. Lizenz_SG650.xml) and confirm your selection with Open.
4 Click on Upload file to import the licence information.
5 After successful import of the licence file, a confirmation appears and the number of licences has changed.
6 Hand over the licence file to your customer/system administrator.

Logging
The Gateway benefits from extensive system logging. The logs are located in the submenu Logs (System > Logs).
The scope of logging can be altered by changing the log level.
In the as-delivered status of the Gateway, the log level is on Error. Changes at the log level are saved by the system.
The protocols can be stored optionally as "persistent", to ensure that they can be evaluated even after a reset to the as-delivered status (e.g. in case of a fault).
The following logging levels exist in the drop-down menu:

Log level	Logging intensity
Emergency	
Error	
Warning	
Info	
Debug	
Trace	

In the log level **Emergency**, only serious system-related faults are logged. In the log level **Trace**, all loggable events are logged and saved in different log files. The log files can be opened, downloaded and deleted under System > Logs. Please note that the log level **Trace** requires a higher proportion of the system resources, is only designed for troubleshooting and not for continuous operation.

Remark:
The logs are not included in the system backup. If you wish to reset the Gateway to the as-delivered status, if required save the protocol files on your laptop/PC or activate the option "Save protocols persistently" in the "System > Protocols" menu.

Important: After every system update, the option "Persistently store protocols" is deactivated to enable the flash memory for the updating process. This deletes all saved protocols. You should therefore save all protocols to your laptop/PC before every system update.

Procedure:
1 Click on System > Protocols.
2 Click the download icon to save the reqired log file.

Backing up/Restoring the system
In the Gateway, you can back up and restore the configuration data, the operating data or also both together.
After completion of the successful function test, back up the whole system and hand the files to the customer/system administrator.
During a system restore process, the power supply to the Gateway must not be interrupted, as otherwise the Gateway will be damaged.

Configuration data + operating data:
All settings and operating data are backed up and restored in one file (file format: BAK).

Configuration data:
All settings are backed up and restored in one file (file format: BAK).

Operational data:
All operating data is backed up and restored in one file (file format: ZIP). The operating data contains the content of the video memory and can be unpacked, opened and viewed for evaluation/analysis by the customer/system administrator.

Procedure: Backing up the system
1 Click on System > Backup / Restore.
2 In the Backup area, select which data (configuration data/operating data) you wish to back up.
3 Click on Back up system and save the back-up file on your commissioning laptop.
4 Hand over the backup file to your customer/system administrator.

Procedure:
Restoring the system
1 Click on System > Backup / Restore.
2 In the Restore area, click on Select file …
3 Select the restore file on your PC/ laptop and confirm your selection with Open. To restore the configuration of the Gateways, a file is required in BAK file format (e. g. Backup.bak).
4 Click on the Restore system button in order to start the system restore process.

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© 2015/04.18
Printed in Germany
Best. Nr. 200048997-02 EN