

Thorsten Reibel & Jürgen Schilder – ABB Customer Training Center Heidelberg / December 2014

Integration of alarm technology and intelligent building control

Webinar: KNX Security Panel GM/A



Alarm technology and intelligent building control A winning combination



Application of alarm technology



Application of intelligent building control



 Using the sensors and functionalities of professional alarm technology in addition for intelligent building control



History of ABB alarm technology More than 30 years of experience

Know how in alarm technology since 1975





SAL2/4/8



1983 Intrusion alarm system ER41



1985-1987 Intrusion alarm systems L102, L204, L804, L808



1996-1999 Intrusion alarm systems L108, L208, L840



2005 Intrusion alarm system L240

Stand-Alone

Integrated into intelligent building control



1998 ABB i-bus EIB Zone Terminal



2000
ABB i-bus
EIB Interface
for intrusion
alarm
system

L208



2001 ABB i-bus A EIB Zone Terminal FM



2004 2008
ABB i-bus ABB i-bus
KNX KNX
I Secuity Interface
Module for
intrusion
alarm
system
L240





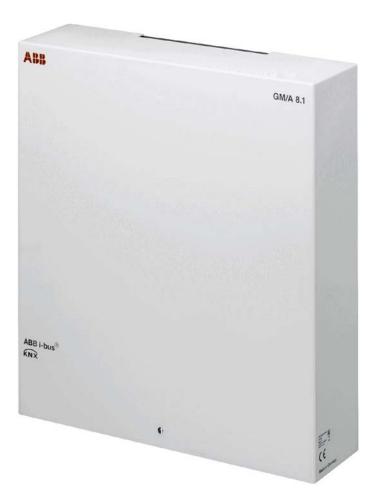
Know how in intelligent building control since 1980



Innovation KNX Security Panel GM/A 8.1

Know how in alarm technology since 1975

Know how in intelligent building control since 1980





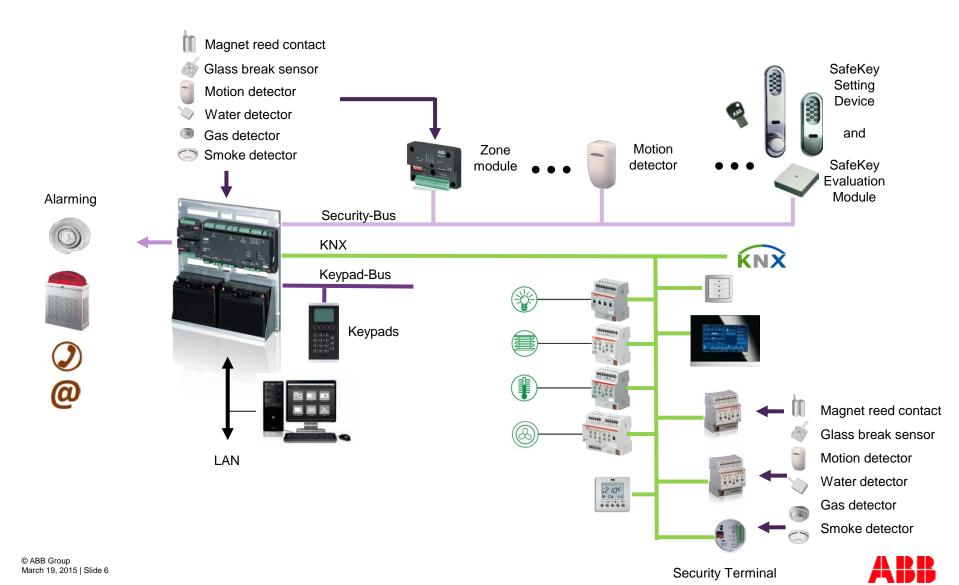
KNX Security Panel GM/A 8.1 One system – all interfaces



- ★ Ethernet connection for programming, diagnostics and operation via standard webbrowser
- Direct inputs for security sensors
- Keypads
 - Internal, external or remote alarming
- Security-Bus for zone modules, motion detectors and setting devices
- KNX interface to display alarm states via displays of intelligent building control and to control automatic functions with support of security sensors



KNX Security Panel GM/A 8.1 A complete product portfolio



KNX Security Panel GM/A 8.1 Overview

Administration of max. 344 zones

Total zone inputs	344
128 zone inputs via KNX	+ 128
8 SafeKey Module (2 zones)	+ 16
32 Zone Modules (each 4 zones)	+ 128
 64 Bus motion detectors 	+ 64
8 onboard zone inputs	8

Hint

 Number of zones via Security Bus depends on required current and cable length/cross section (max. 800 mA)



KNX Security Panel GM/A 8.1 Keypad BT/A 1.1



- The keypad is used to operate and display the information of the system states of the GM/A KNX Security Panel
- The multifunction and special keys mean that all the system functions can be operated easily
- All the keys are preconfigured. They can be reconfigured using the web interface
- Safety-relevant functions are protected by a user PIN
- The device can be used in systems with increased system requirements according to VdS and EN 50131/IEC
- For direct connection to the Keypad-Bus



KNX Security Panel GM/A 8.1 Comissioning



 Parameter setting via standard webbrowser (Internet Explorer, Firefox, Chrome)



Benefits:

- No programming device
- No special software
- Clear overview and easiest commissioning



KNX Security Panel GM/A 8.1 Highlights

- First EN/IEC compliant KNX Security System on market
- Supports different languages (DE, EN, FR, IT, NL, ES, PL)
- Applicable from low to medium-high risk applications
- Universal usage for all kinds of hazards in a building like intrusion, hold-up and technical risks (Smoke/Heat, gas and water)
- Comissioning, visualization and operation via standard webbrowser
- Integrable with modern building- and communication technologies via ethernet and KNX







KNX Security Panel GM/A 8.1 Secured communication & protected access





- Encryption of all data via Secure Sockets Layer (SSL)
- Login via web interface only with username and password

Benefits:

 Highest security against attacks from local network



KNX Security Panel GM/A 8.1 Landing-Page KNX-Alarm



Website for KNX alarm topics:

www.abb.de/knx-alarm



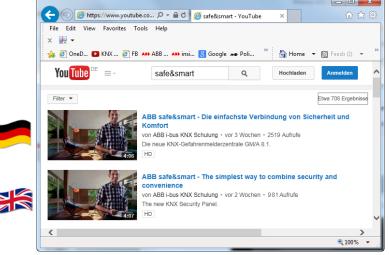
 www.abb.com/knx-alarm coming soon...

Benefits:

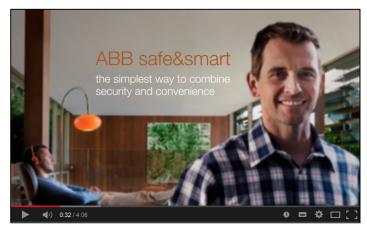
- All news and informations at one place
- Links to all needed additional informations (e.g. Product informations, e-Learnings, training dates, etc.)



KNX Security Panel GM/A 8.1 Marketing Tools



Video: "safe&smart"









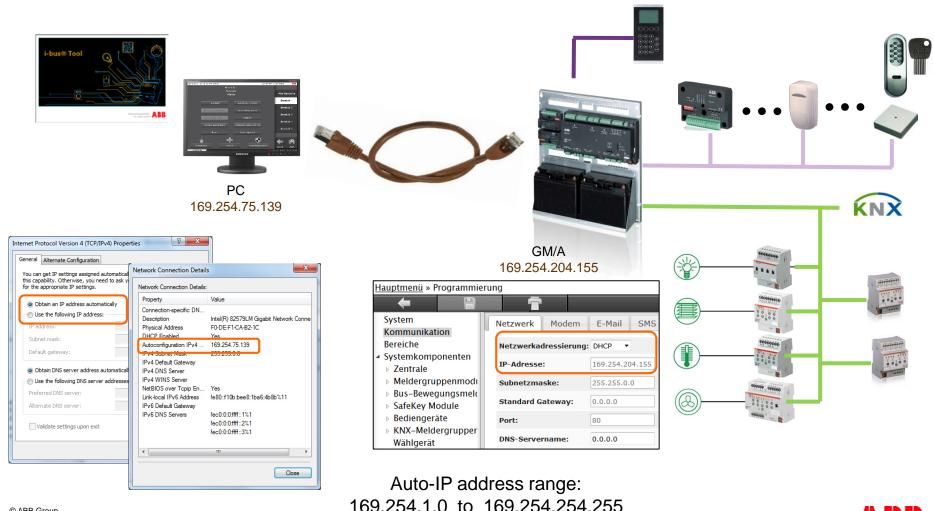
KNX Security Panel GM/A 8.1





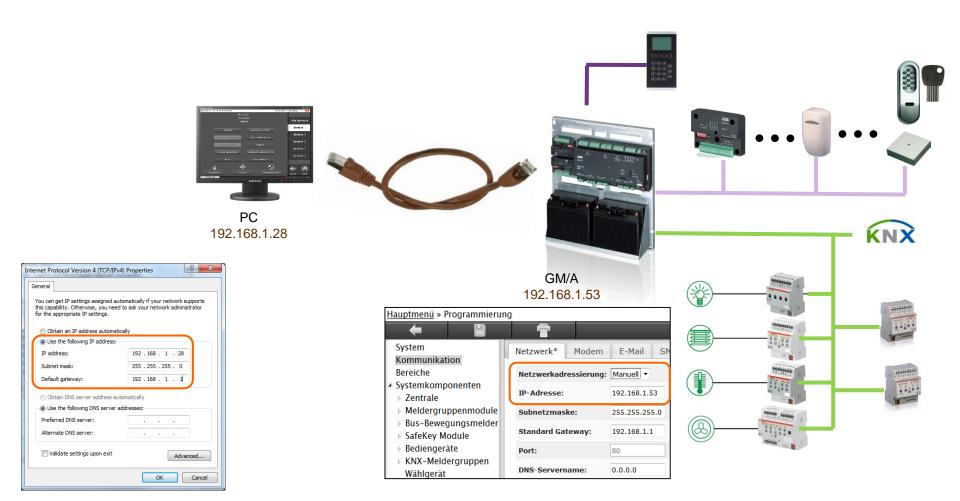


KNX Security Panel GM/A 8.1 Commissioning – direct (Auto-IP)



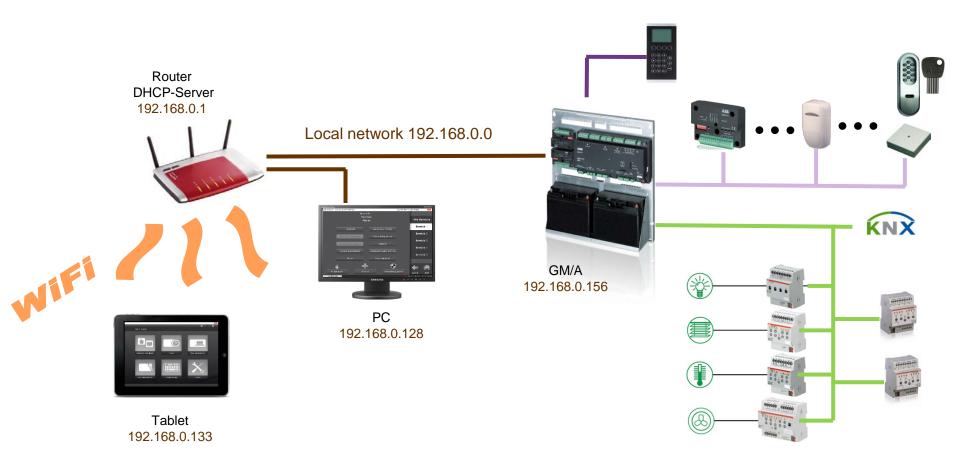


KNX Security Panel GM/A 8.1 Commissioning – direct (Fixed-IP)



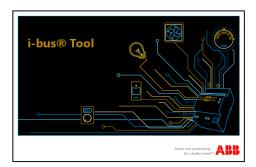


KNX Security Panel GM/A 8.1 Commissioning – router with DHCP-Server





KNX Security Panel GM/A 8.1 Commissioning







i-bus® Tool

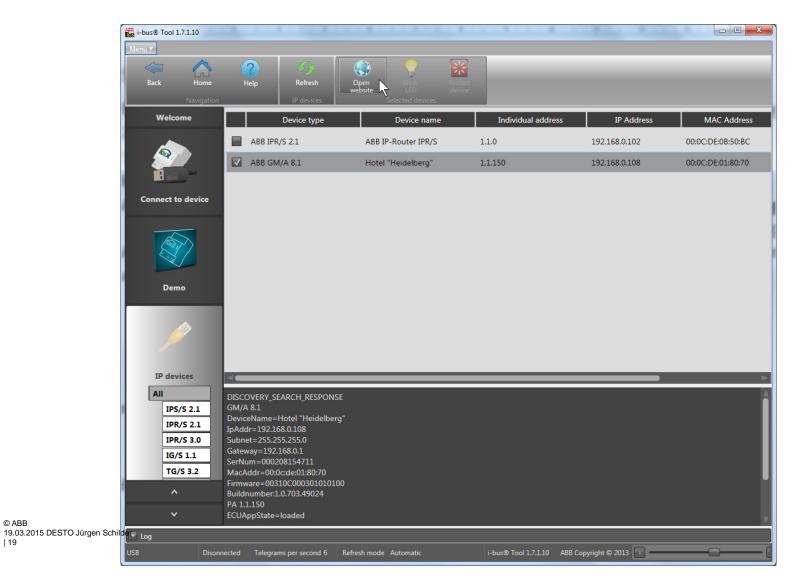
- Start i-bus® Tools via file "i-bustool.exe"
- Press button "Connect"
- Change over to "IP Devices"
- IP network will be searched for ABB KNX IP devices
- KNX Security Panel will be listed as "ABB GM/A 8.1"





KNX Security Panel GM/A 8.1 i-bus® Tool

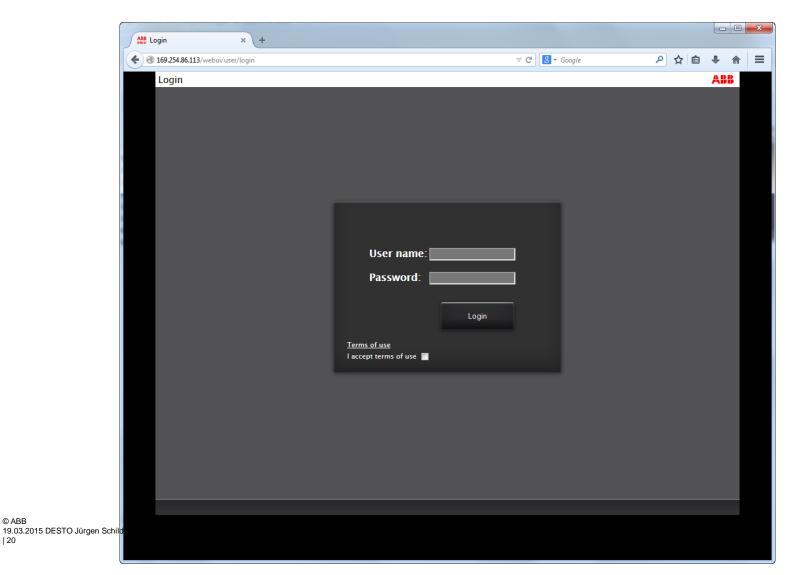
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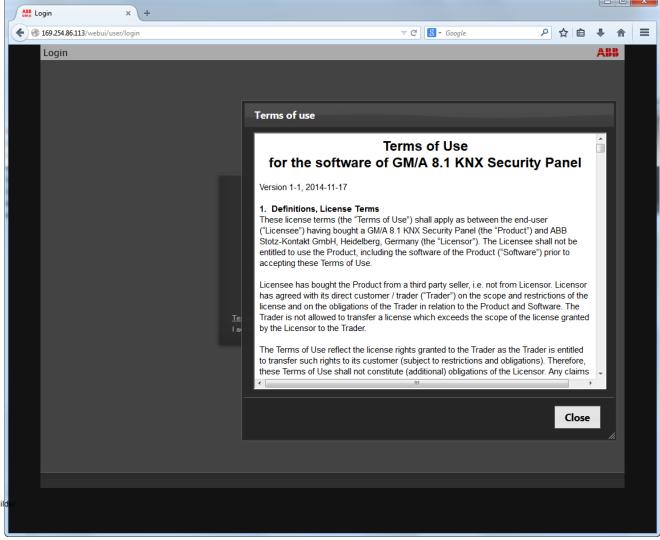
KNX Security Panel GM/A 8.1 Commissioning – Login

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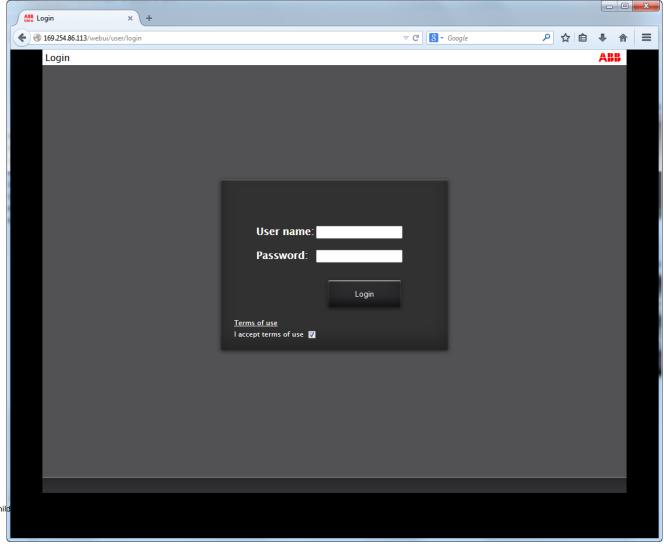


KNX Security Panel GM/A 8.1 Commissioning – Login





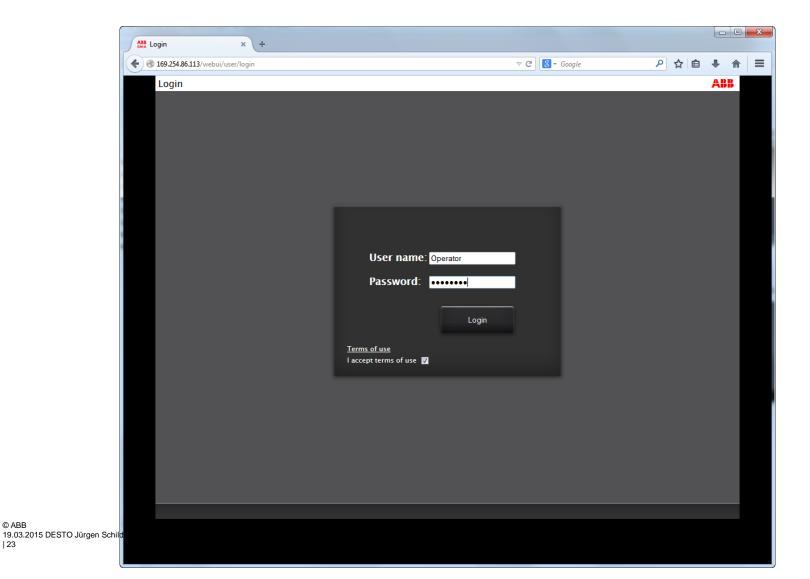
KNX Security Panel GM/A 8.1 Commissioning – Login





KNX Security Panel GM/A 8.1 Commissioning – Login "Operator"

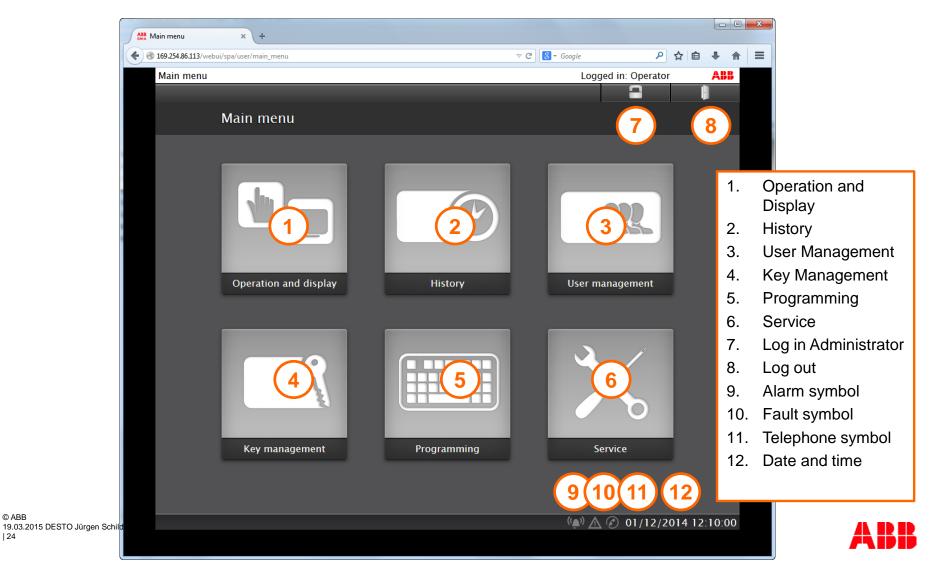
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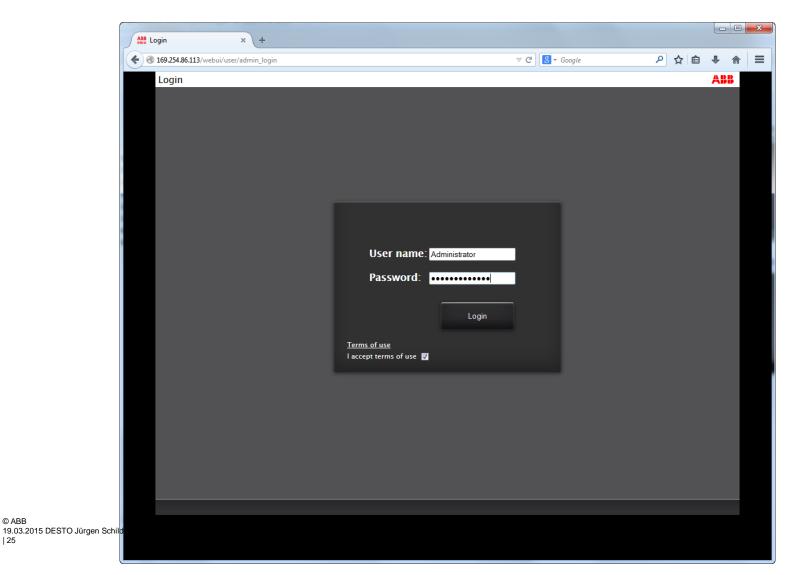
KNX Security Panel GM/A 8.1 Main Menu: Operator

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KNX Security Panel GM/A 8.1 Login "Administrator"

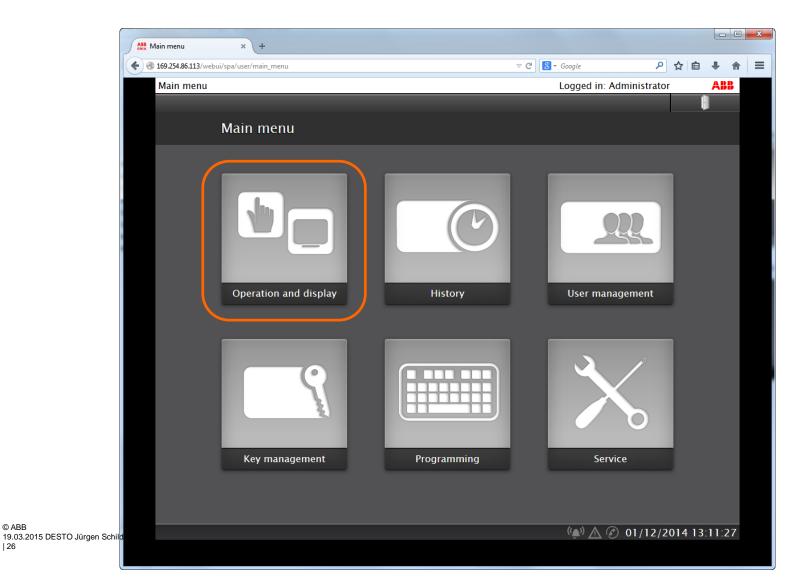
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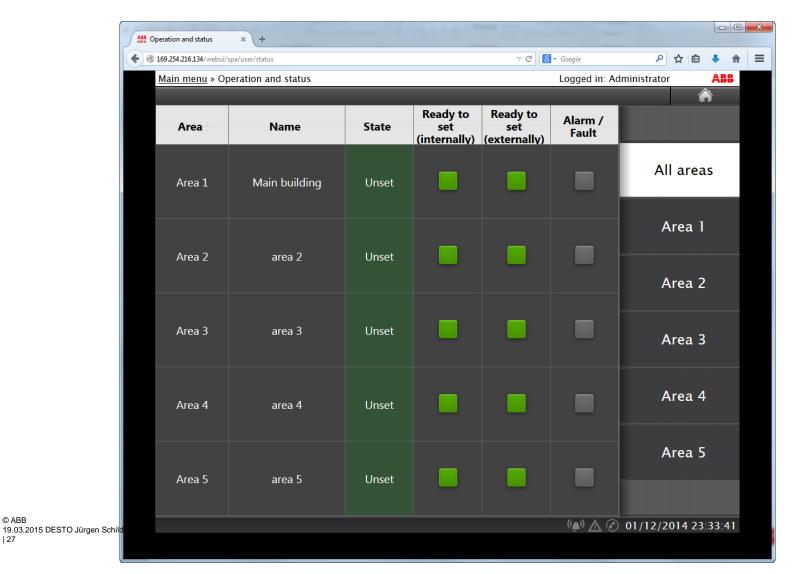
KNX Security Panel GM/A 8.1 Main Menu: Operation and Display

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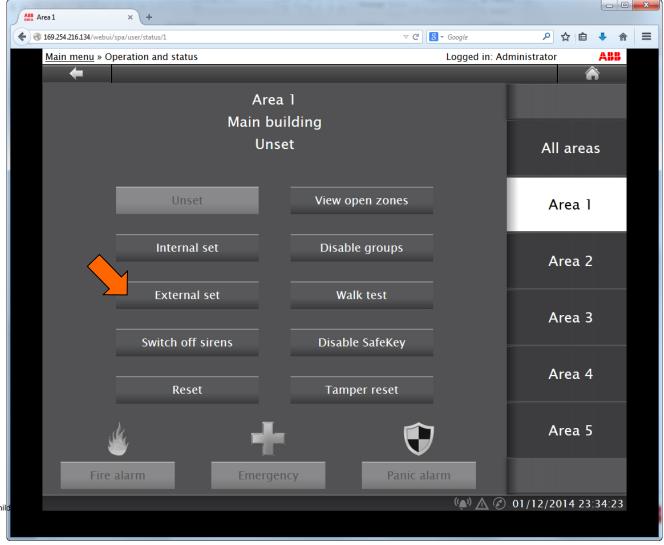


KNX Security Panel GM/A 8.1 Main Menu: Operation and Display – all Areas

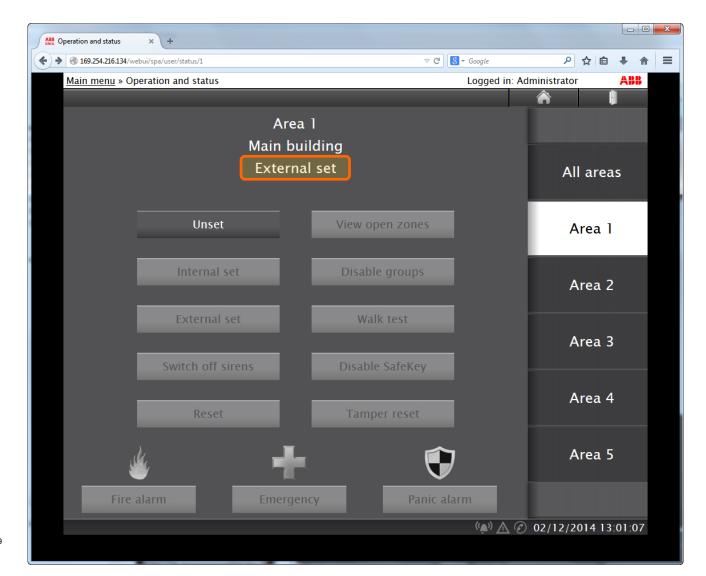


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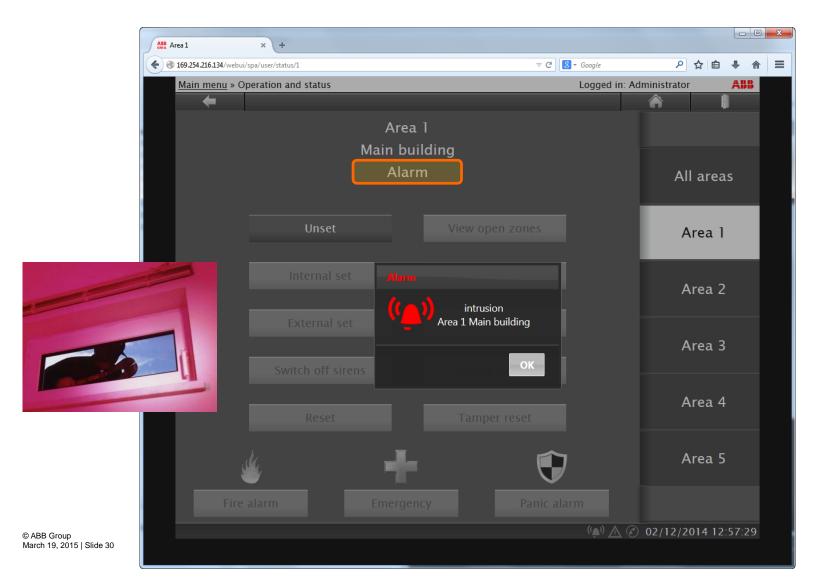




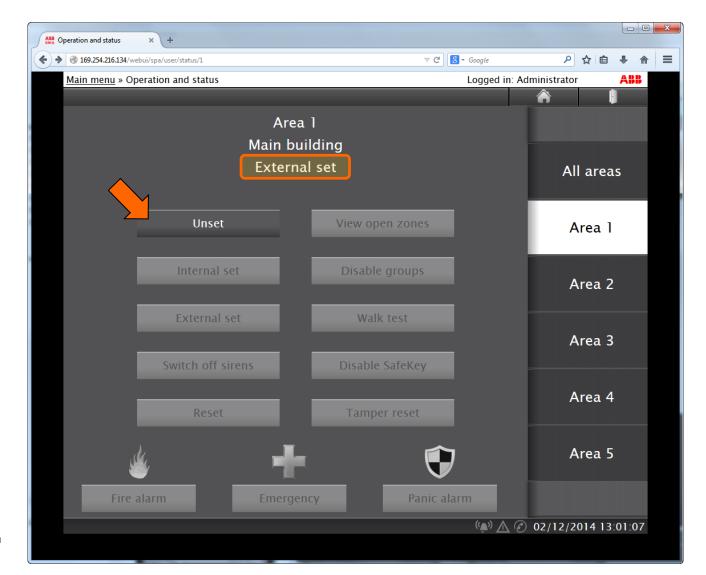




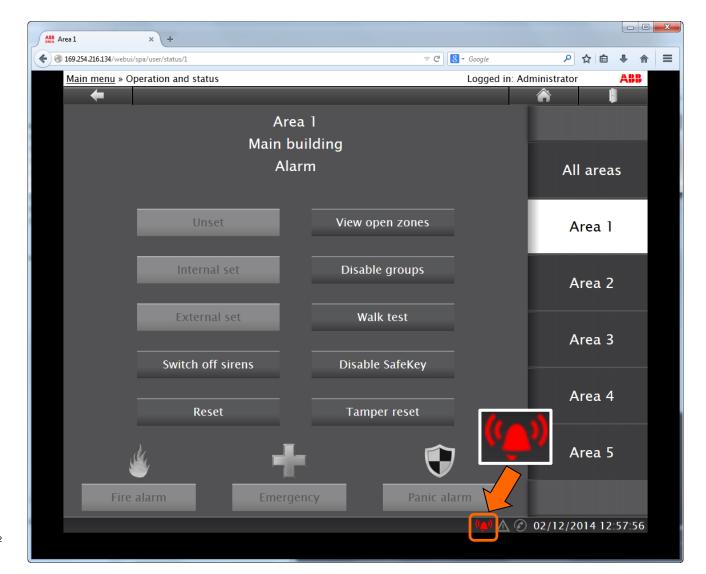




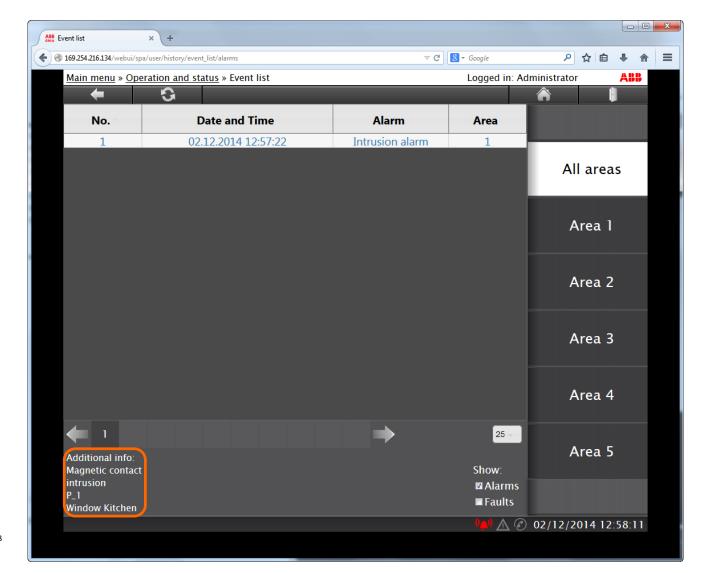




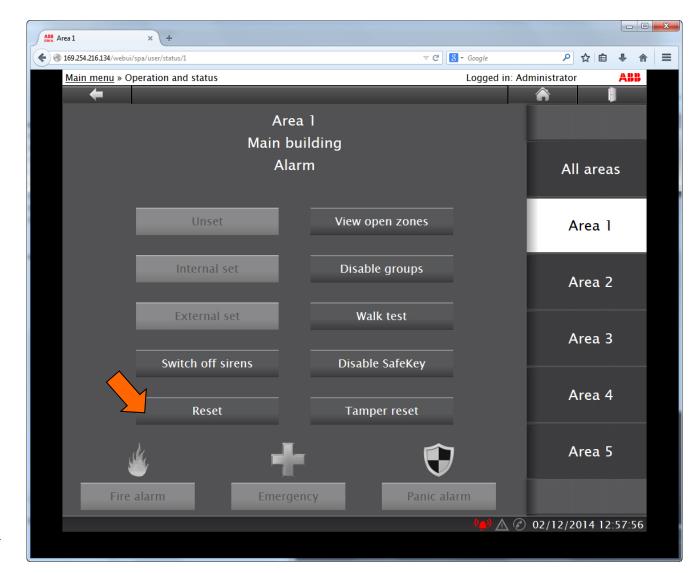








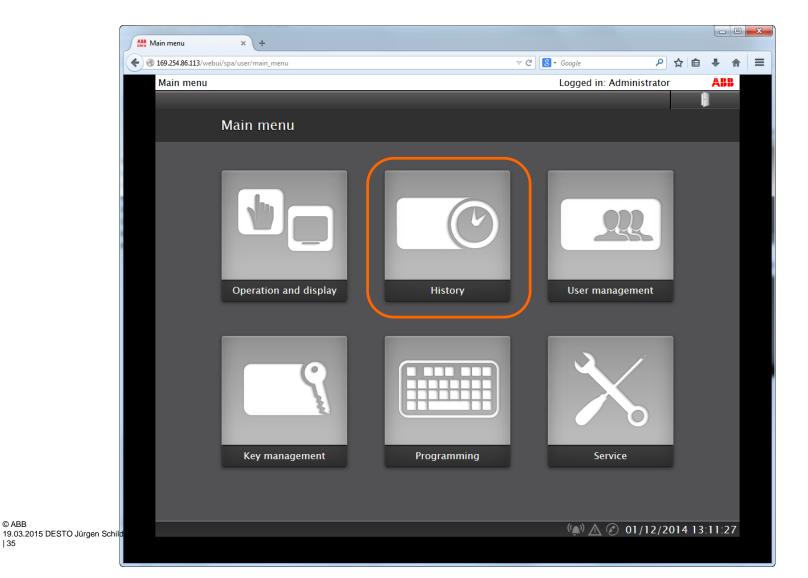






KNX Security Panel GM/A 8.1 Main Menu: History

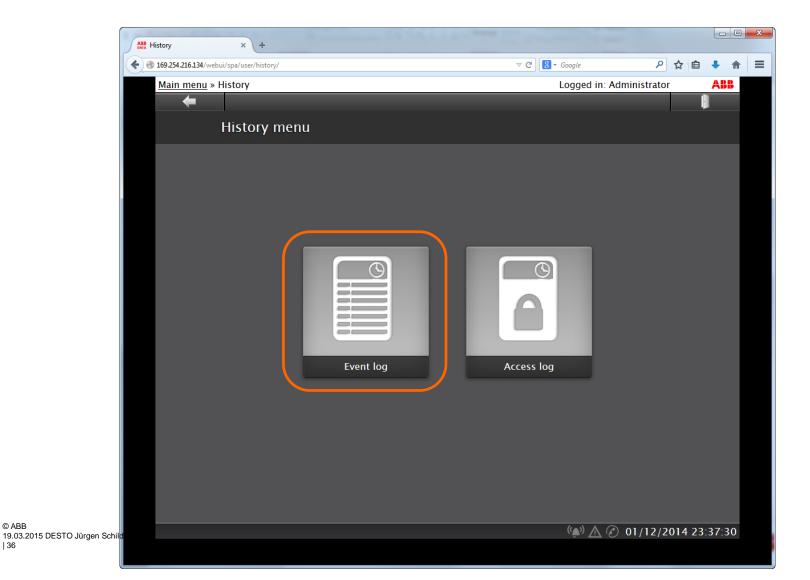
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KNX Security Panel GM/A 8.1 Main Menu: History - Event Log

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KNX Security Panel GM/A 8.1 Main Menu: History – Event Log

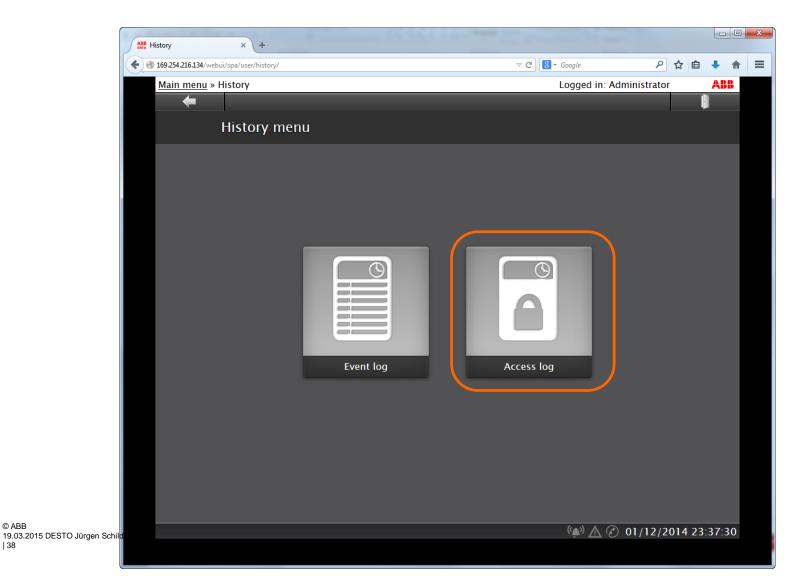
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884		01.12.	2014	23:38	24		Mess	age			unset		1		
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KNX Security Panel GM/A 8.1 Main Menu: History – Access Log (SafeKey)

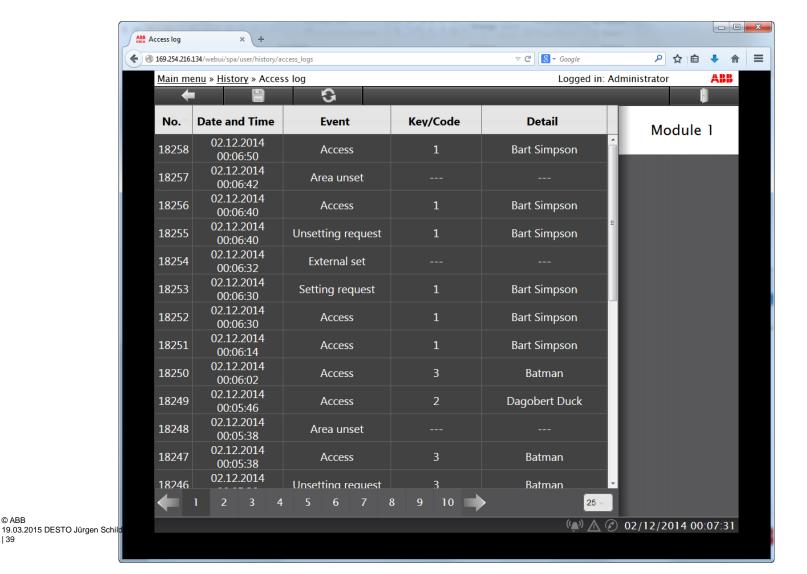
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KNX Security Panel GM/A 8.1 Main Menu: History – Access Log (SafeKey)

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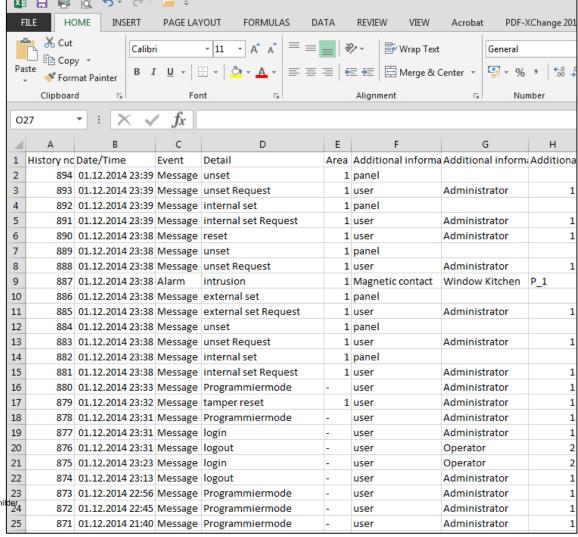


KNX Security Panel GM/A 8.1 Main Menu: Save History – Event/Access Log (CSV)

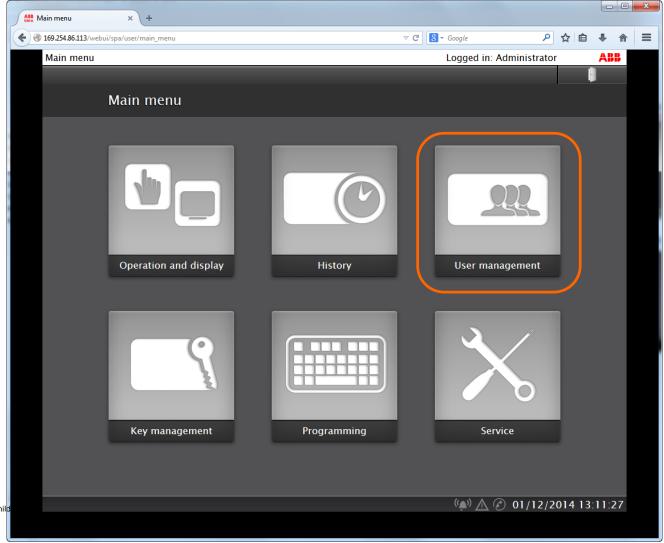
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KNX Security Panel GM/A 8.1 Main Menu: Save History – Event/Access Log (CSV)



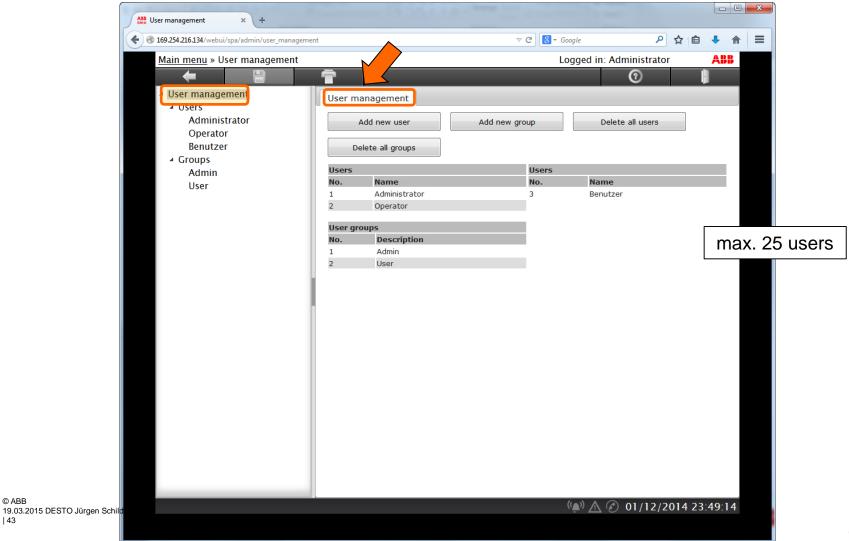






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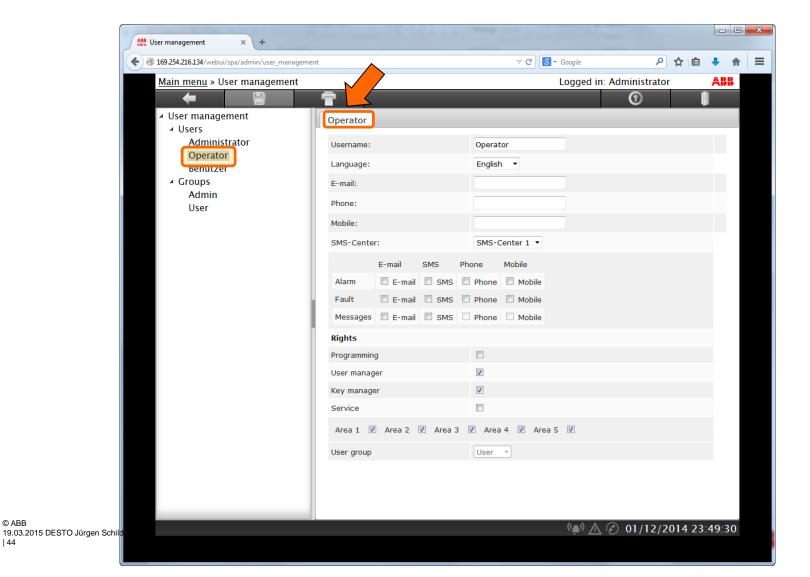
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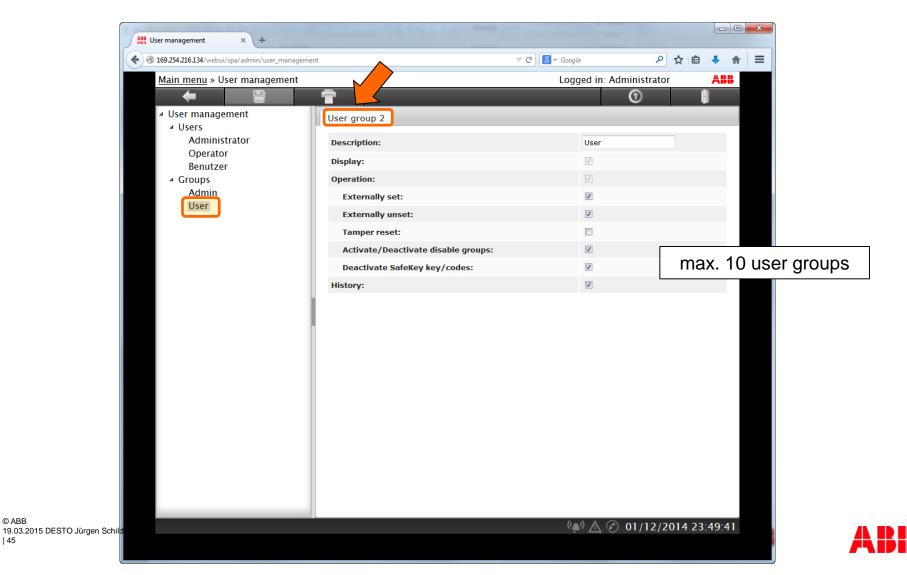
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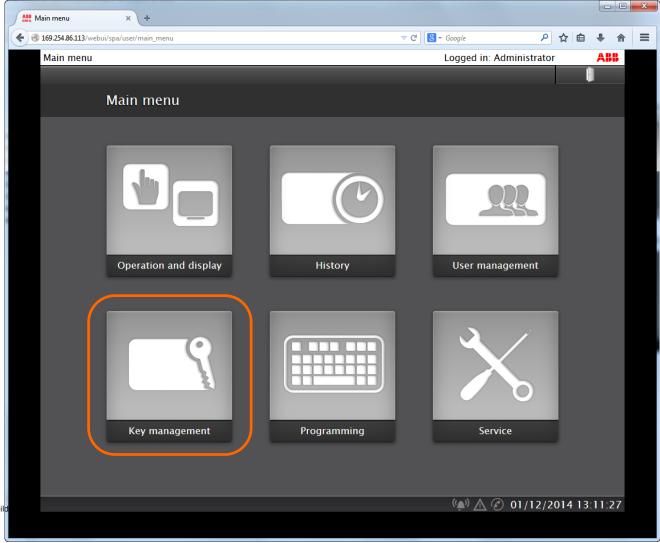
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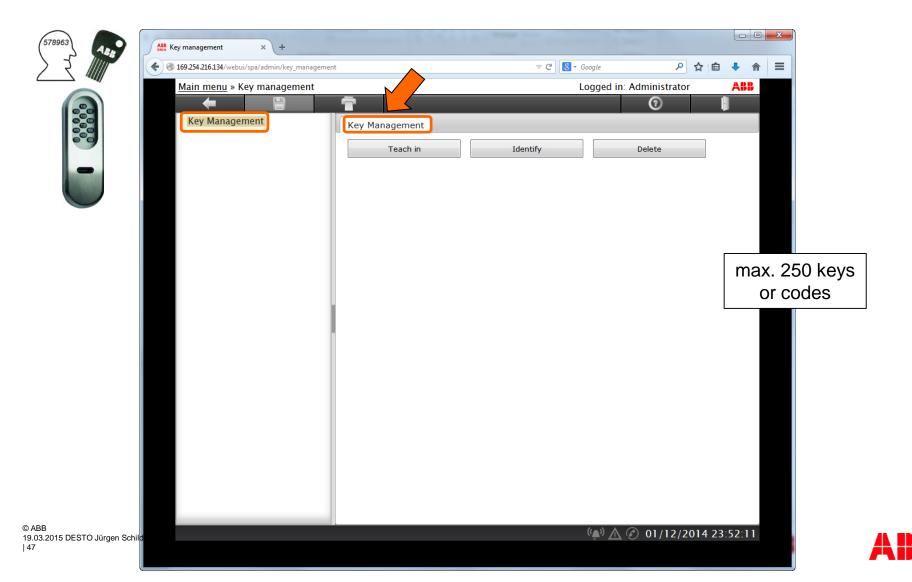


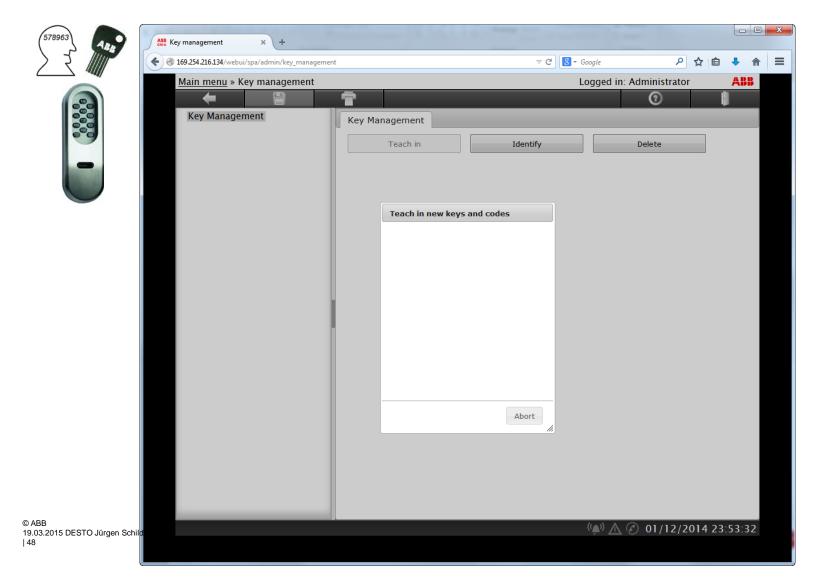
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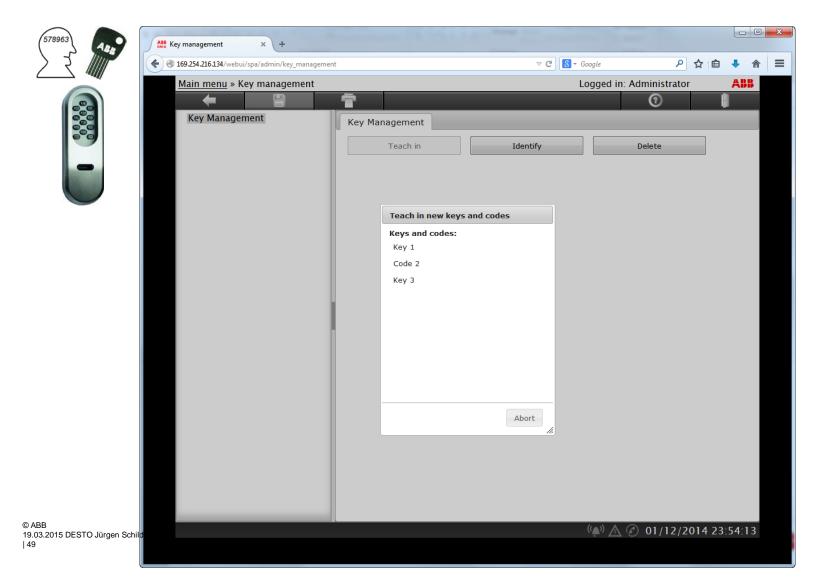




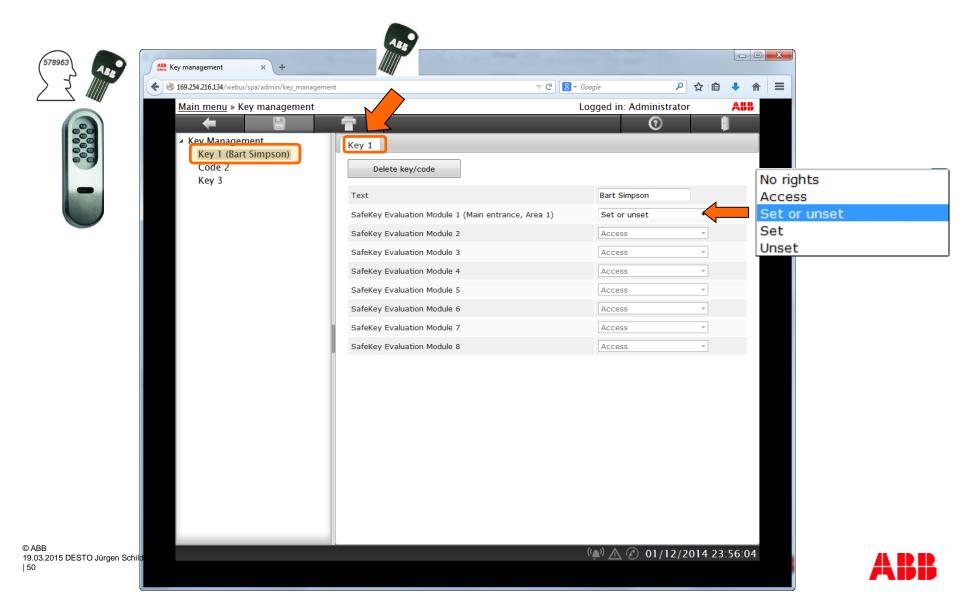


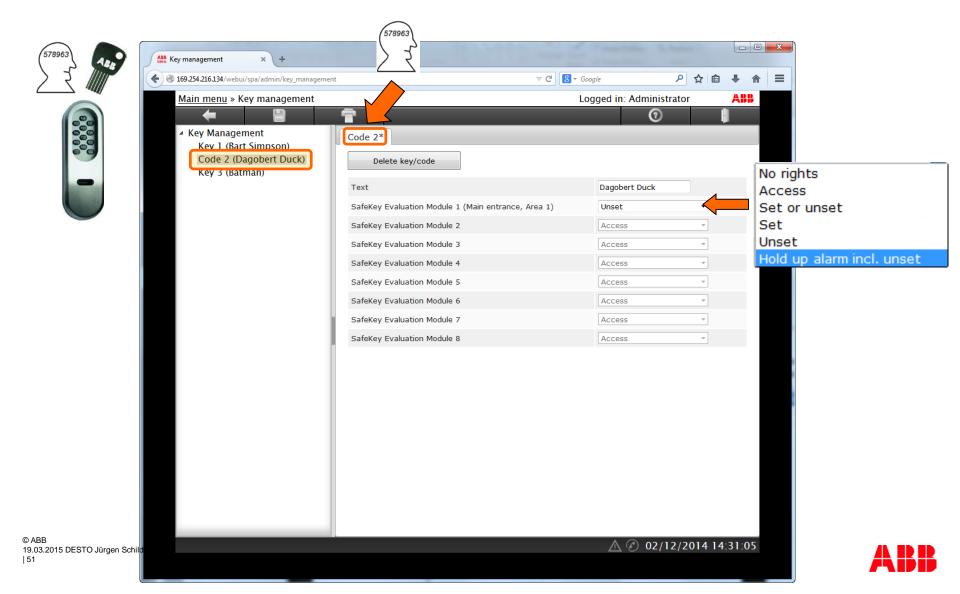




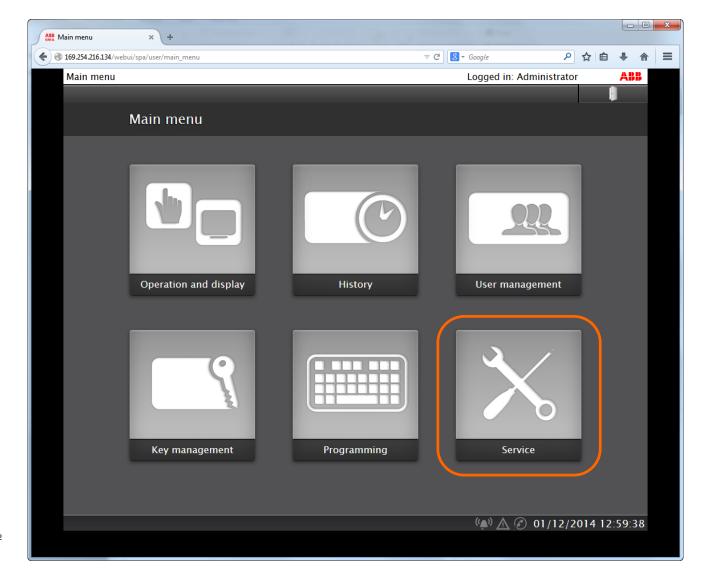








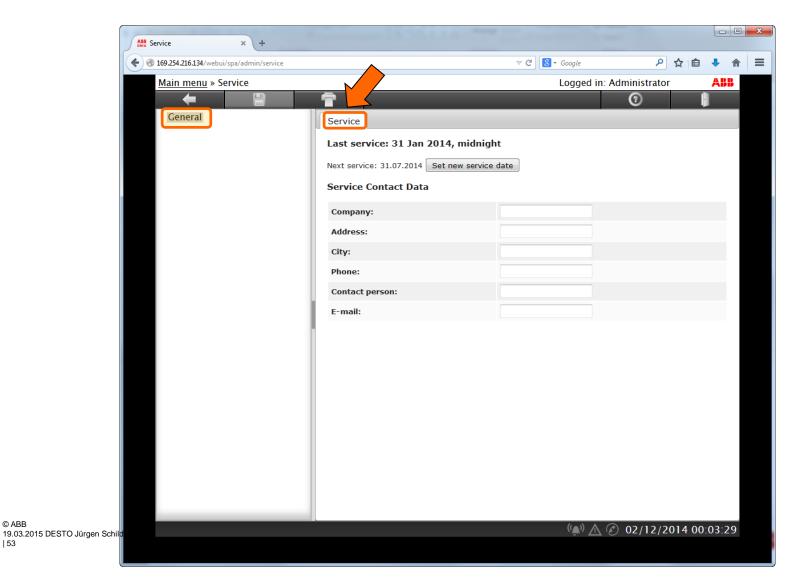
KNX Security Panel GM/A 8.1 Main Menu: Service – coming soon...





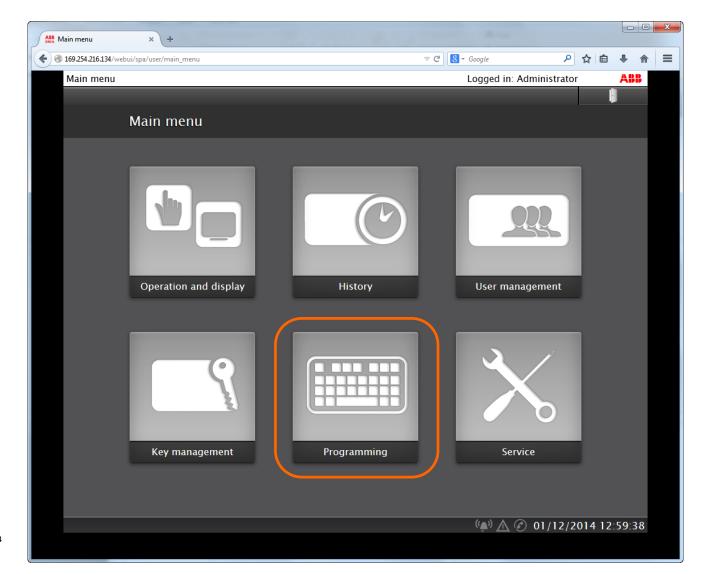
KNX Security Panel GM/A 8.1 Main Menu: Service – coming soon...

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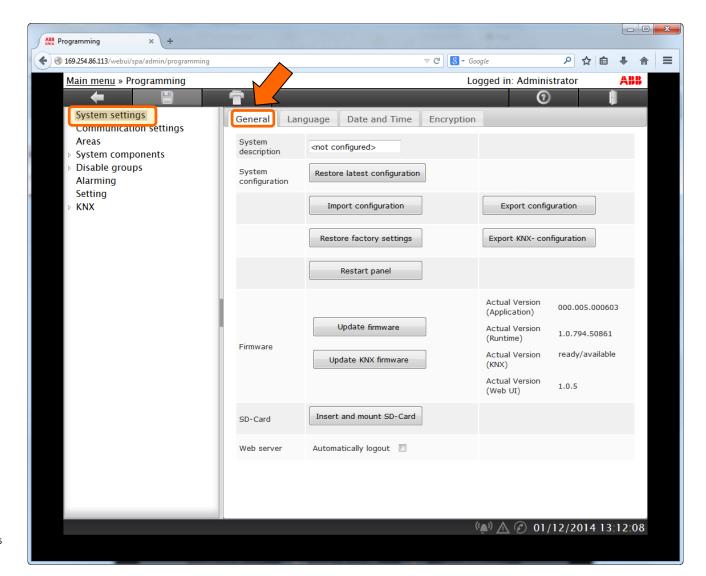


KNX Security Panel GM/A 8.1 Main Menu: Programming



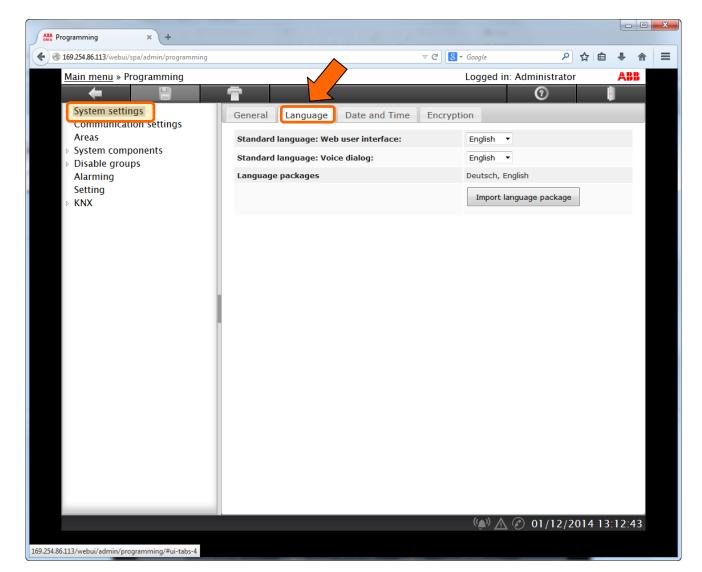


KNX Security Panel GM/A 8.1 Programming – System settings: General



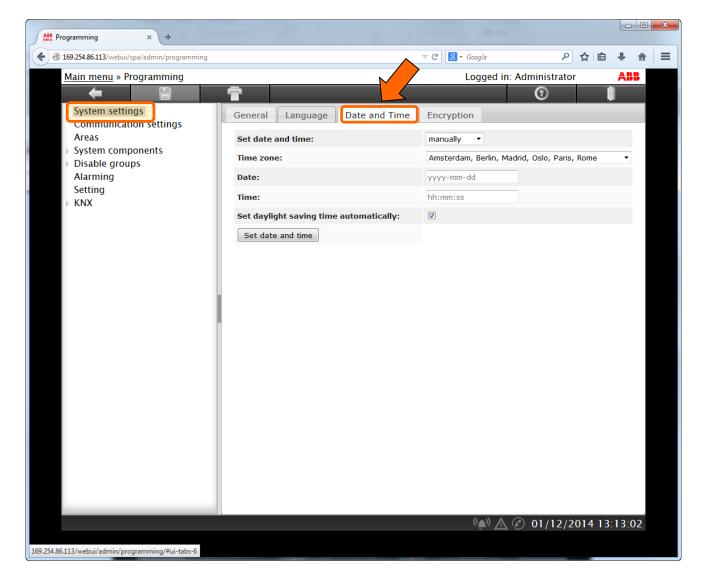


KNX Security Panel GM/A 8.1 Programming – System settings: Language



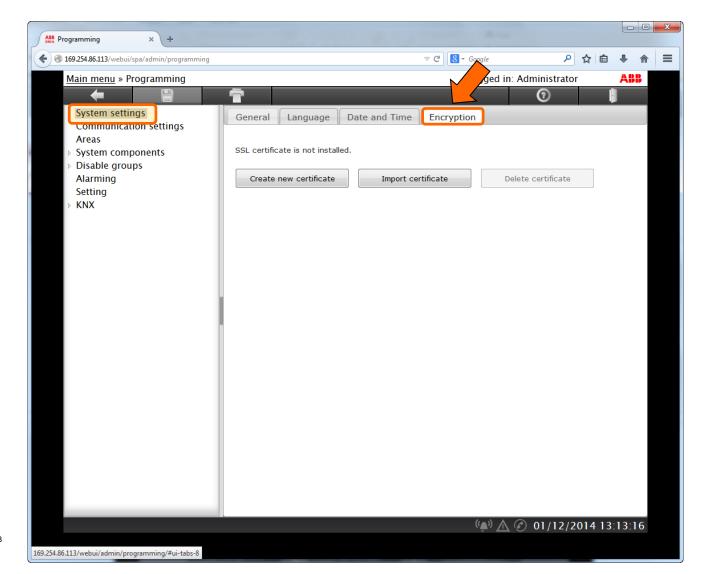


KNX Security Panel GM/A 8.1 Programming – System settings: Date and Time



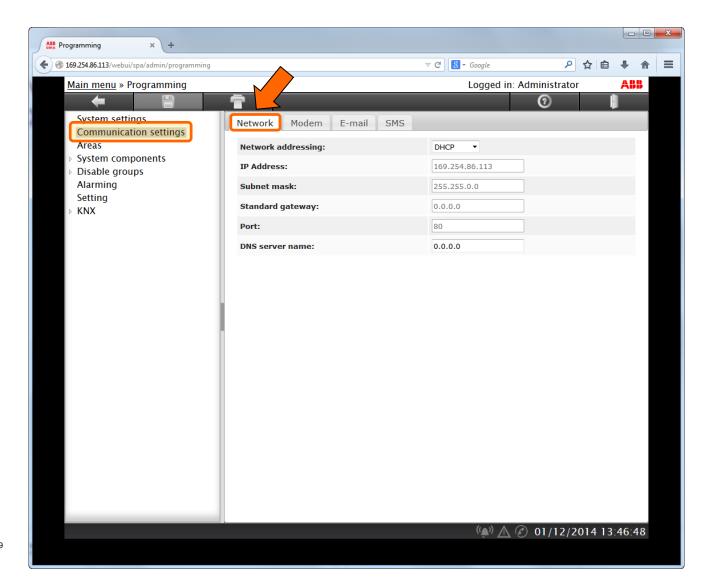


KNX Security Panel GM/A 8.1 Programming – System settings: Encryption



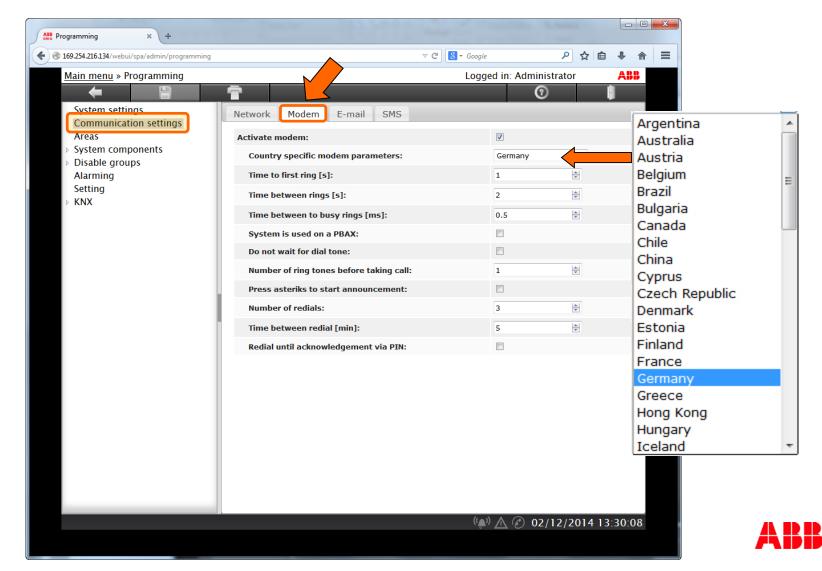


KNX Security Panel GM/A 8.1 Programming – Communication settings: Network

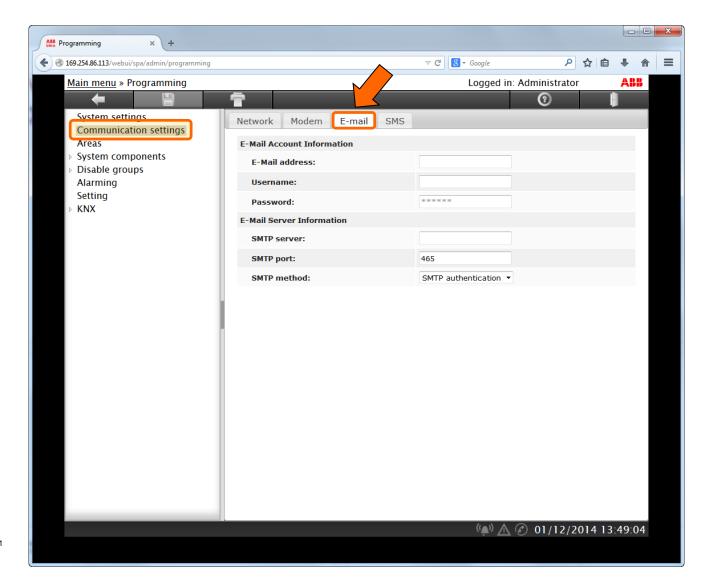




KNX Security Panel GM/A 8.1 Programming – Communication settings: Modem

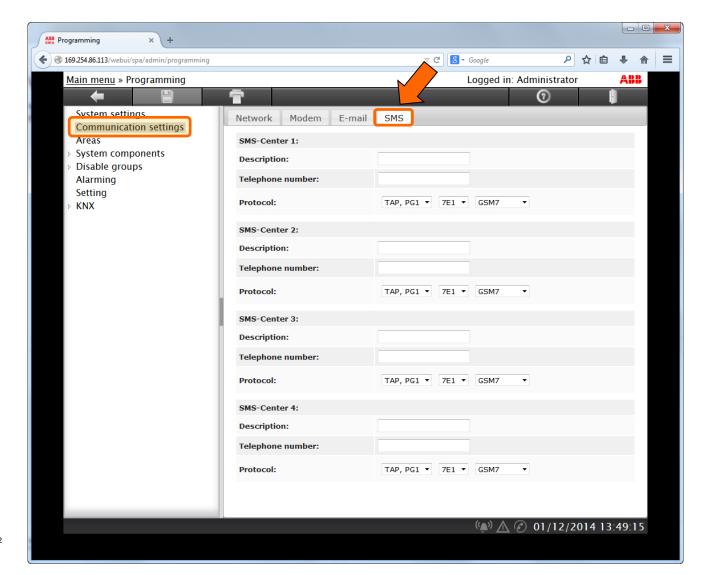


KNX Security Panel GM/A 8.1 Programming – Communication settings: E-mail



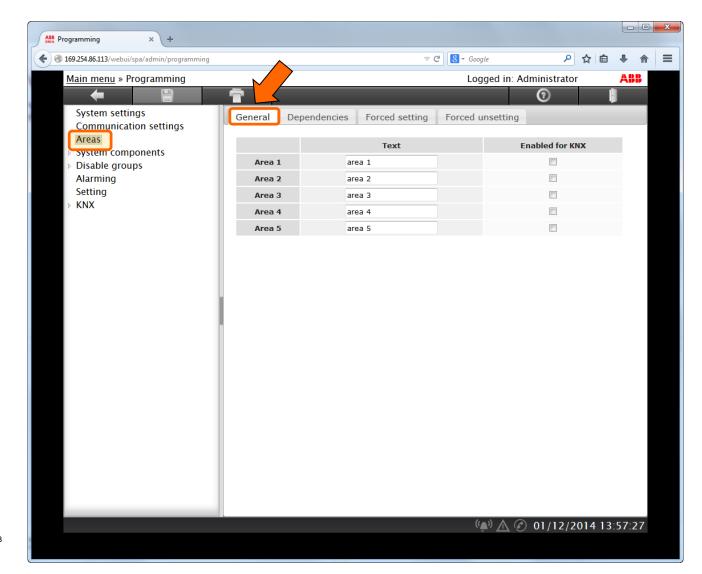


KNX Security Panel GM/A 8.1 Programming – Communication settings: SMS



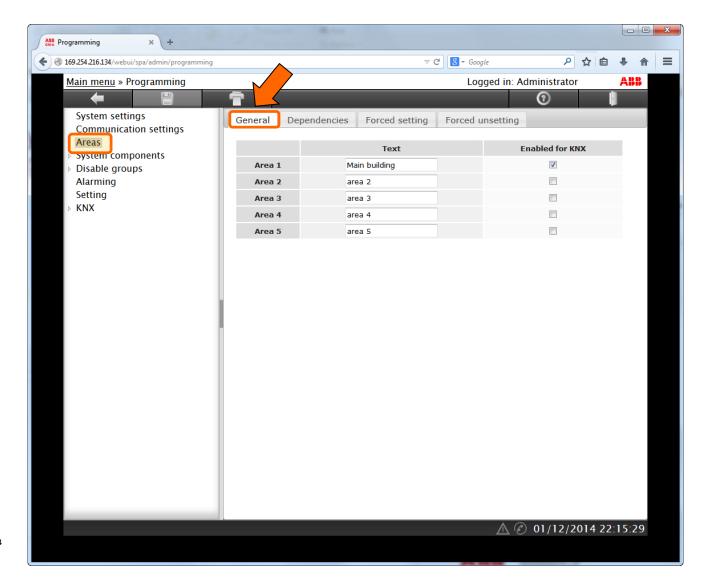


KNX Security Panel GM/A 8.1 Programming – Areas: General



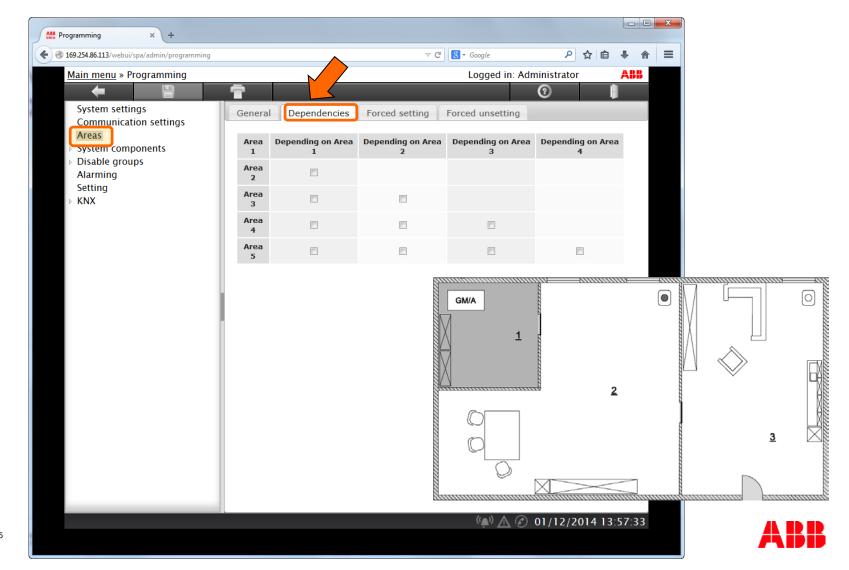


KNX Security Panel GM/A 8.1 Programming – Areas: General

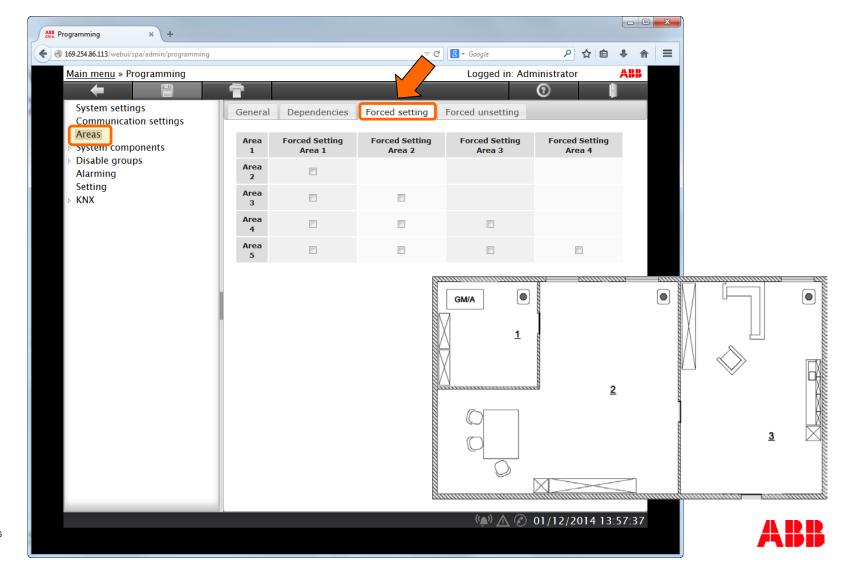




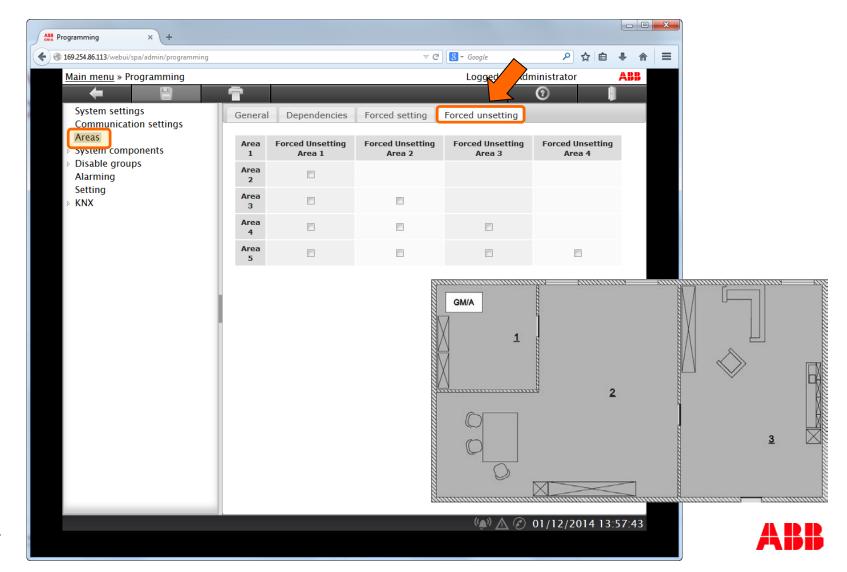
KNX Security Panel GM/A 8.1 Programming – Areas: Dependencies



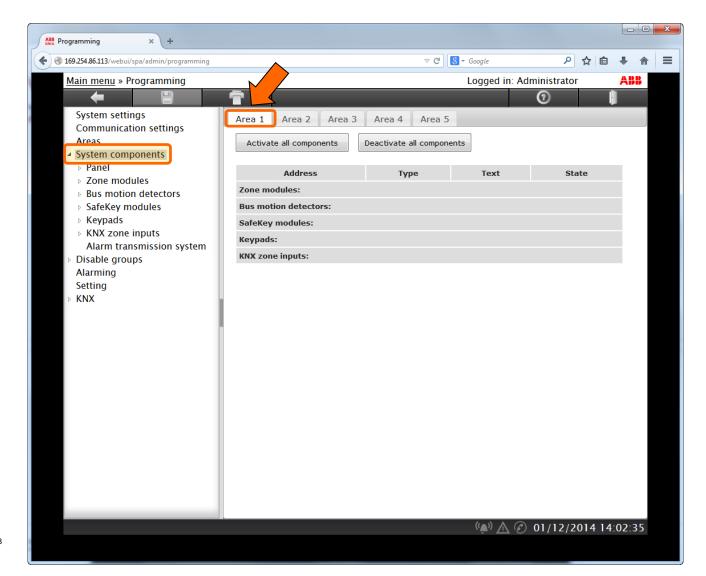
KNX Security Panel GM/A 8.1 Programming – Areas: Forced setting



KNX Security Panel GM/A 8.1 Programming – Areas: Forced unsetting

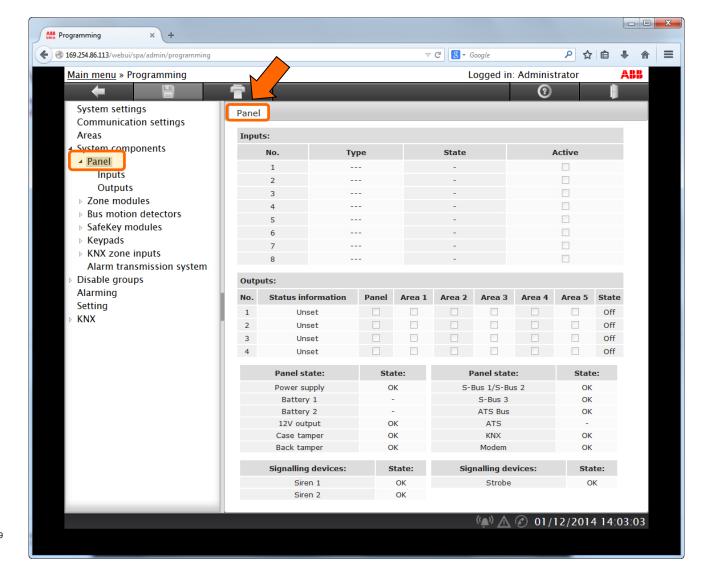


KNX Security Panel GM/A 8.1 Programming – System Components



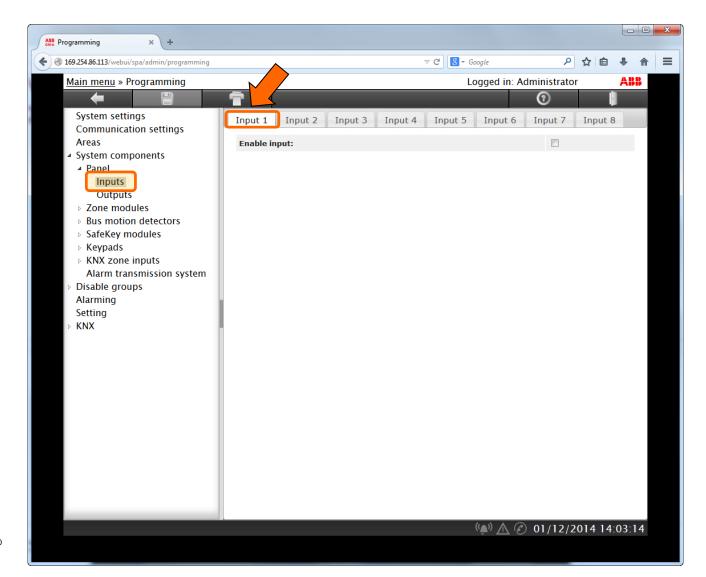


KNX Security Panel GM/A 8.1 Programming – System Components: Panel



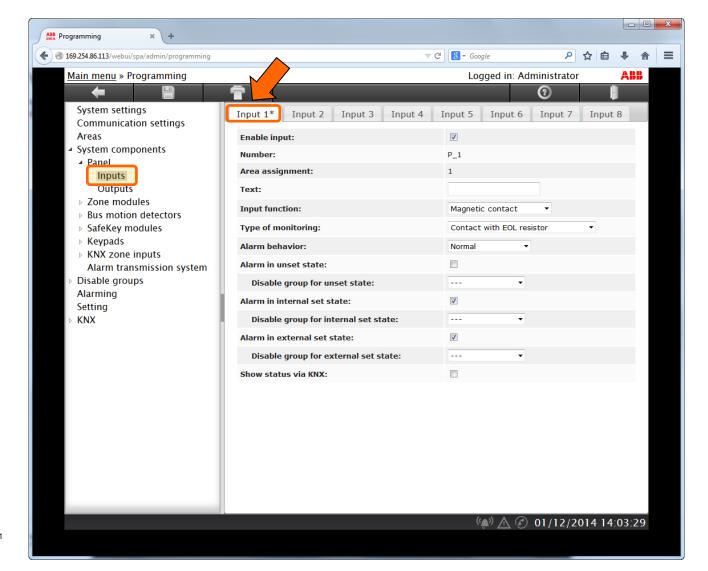


KNX Security Panel GM/A 8.1 Programming – System Components: Panel Inputs





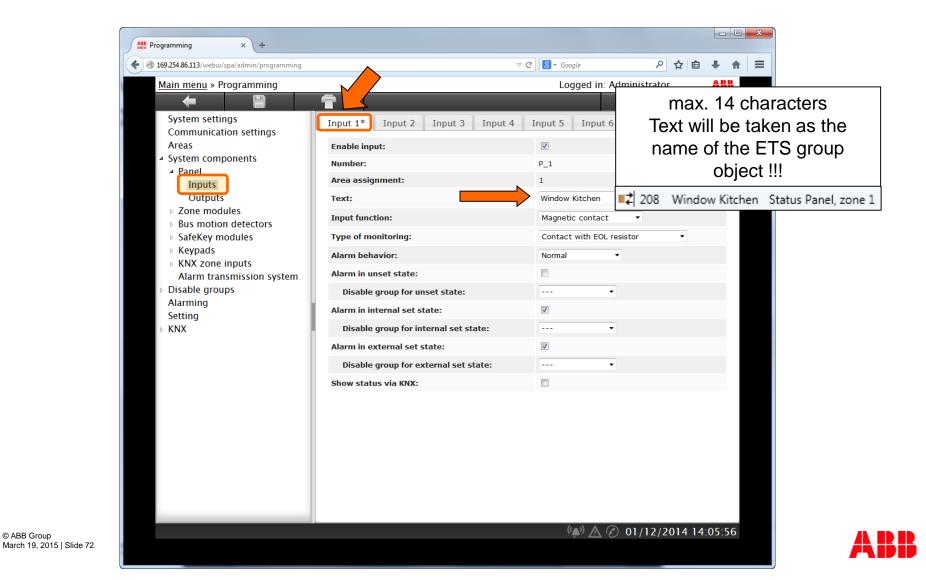
KNX Security Panel GM/A 8.1 Programming – System Components: Panel Inputs

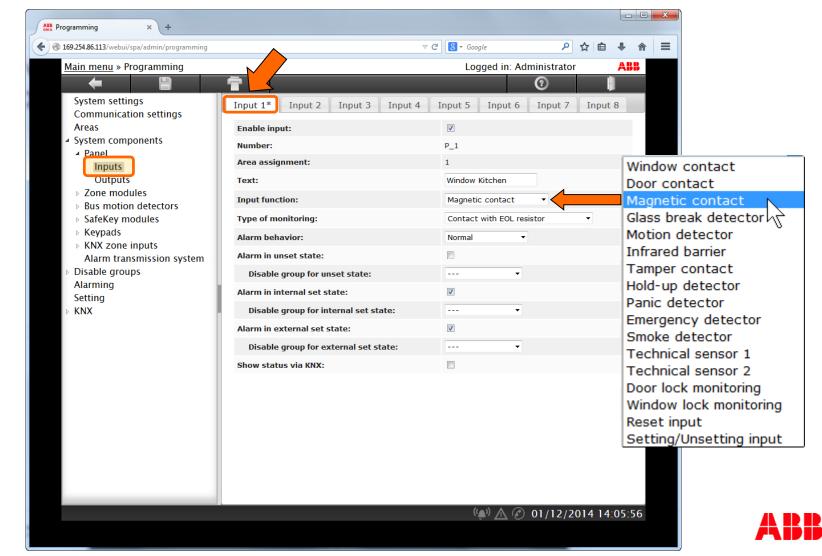




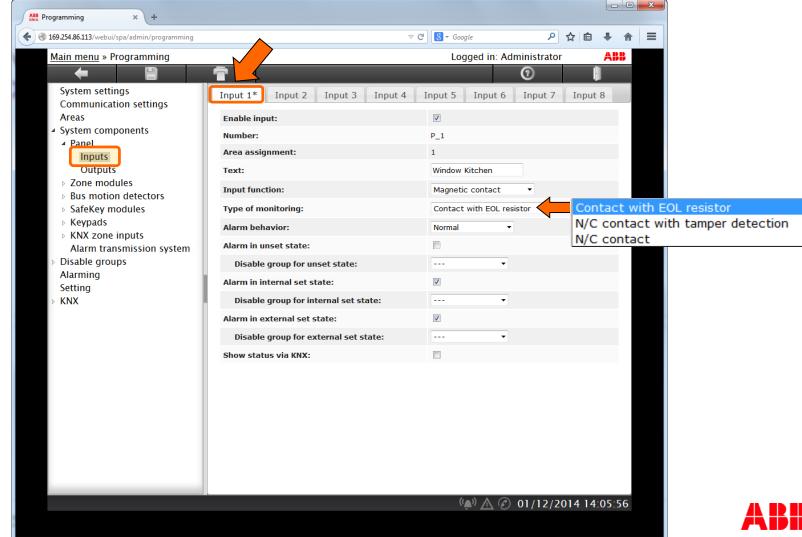
KNX Security Panel GM/A 8.1 Programming – System Components: Panel Inputs

@ ABB Group

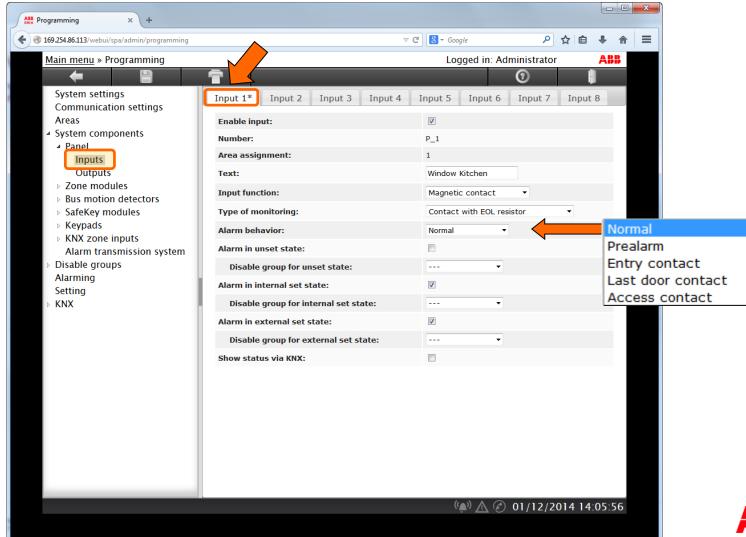




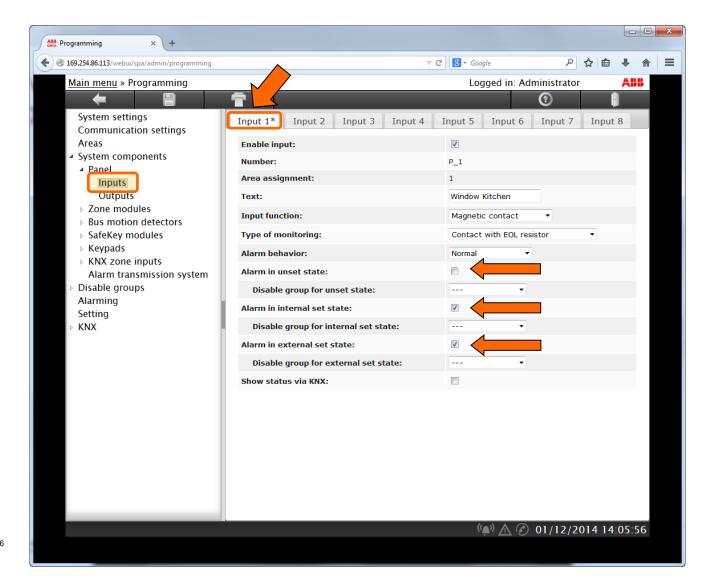




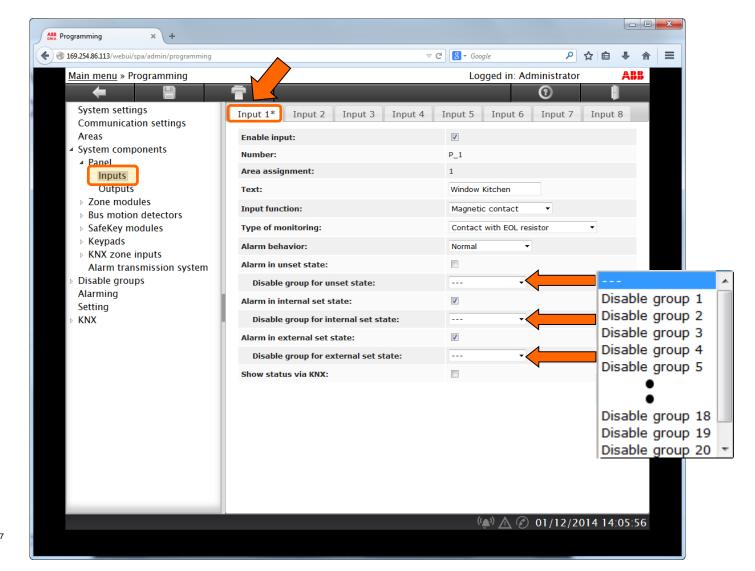




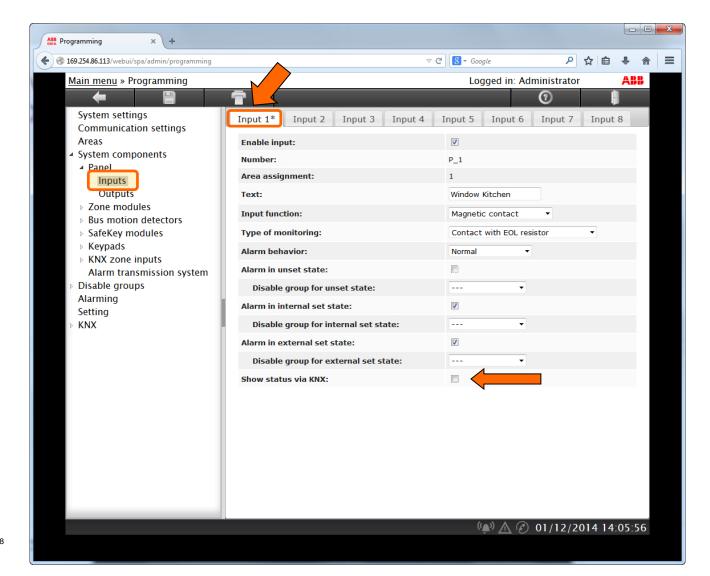




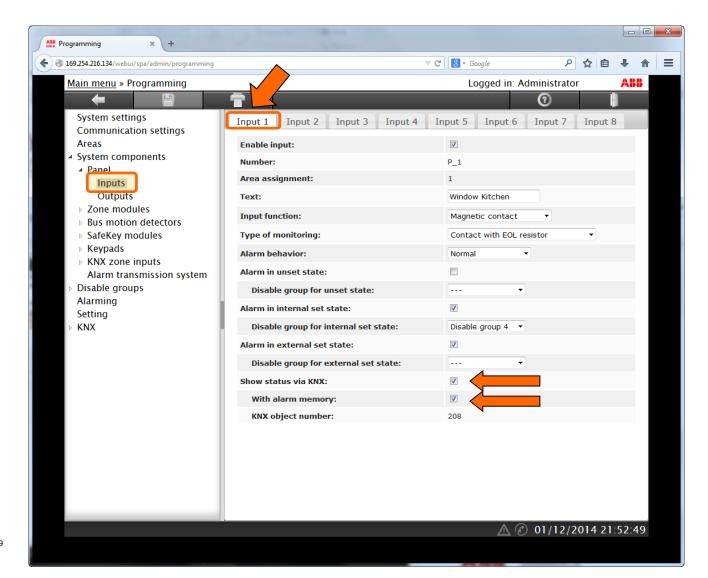




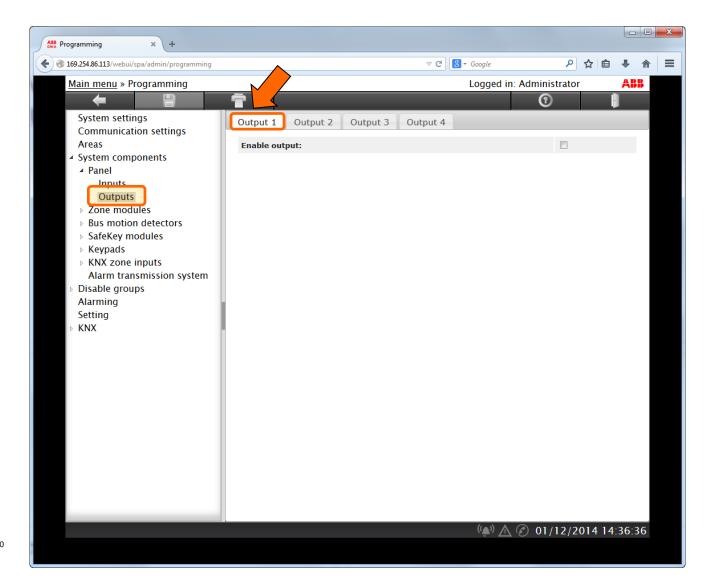




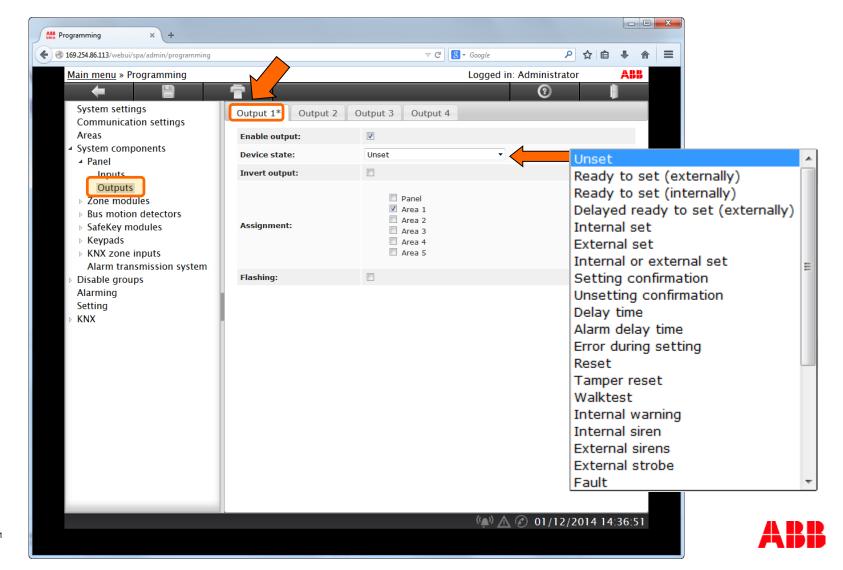


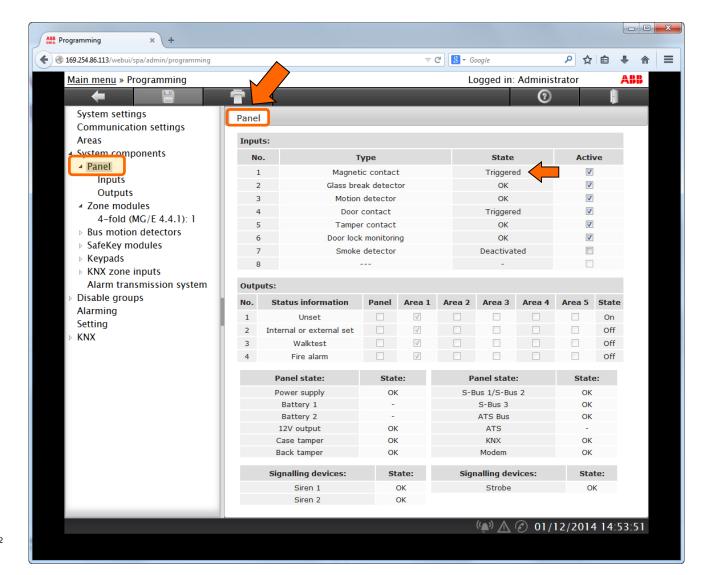






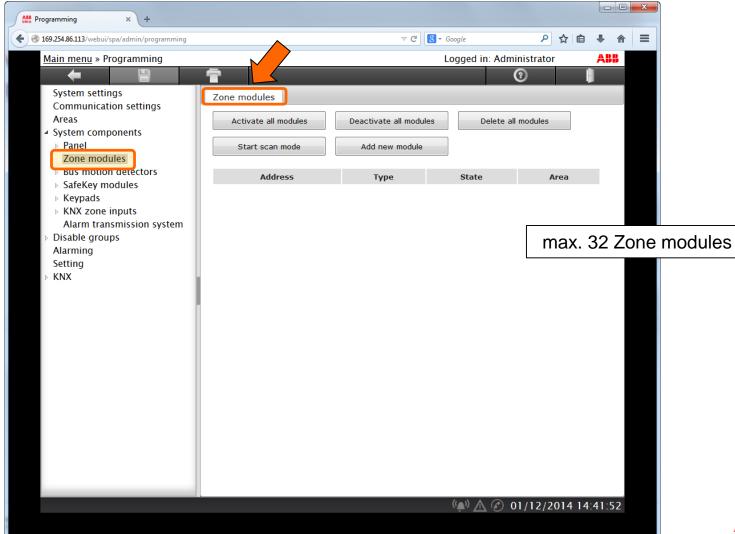




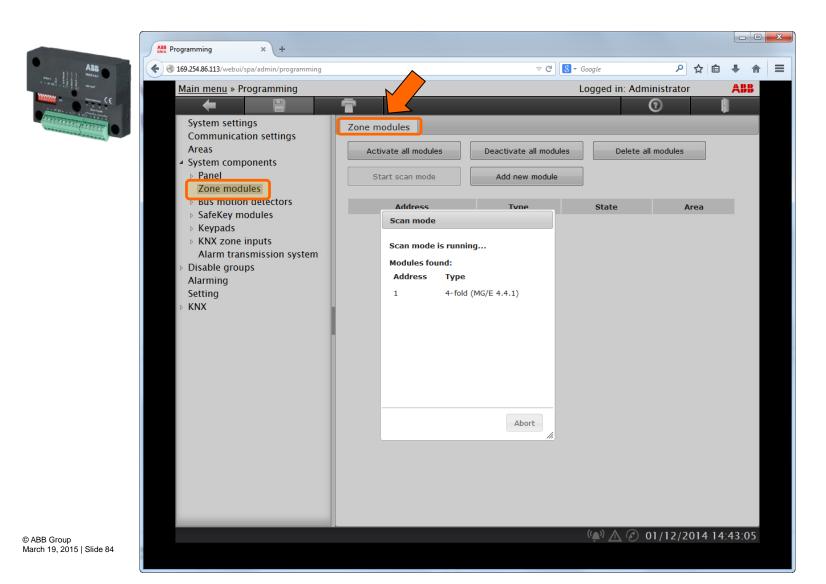






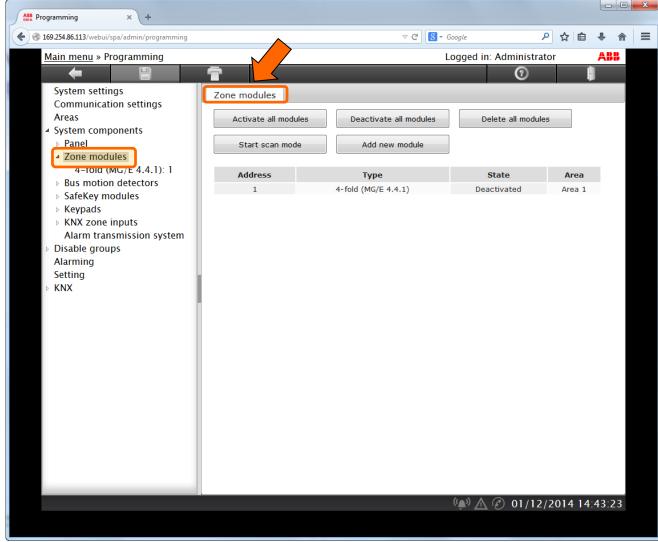




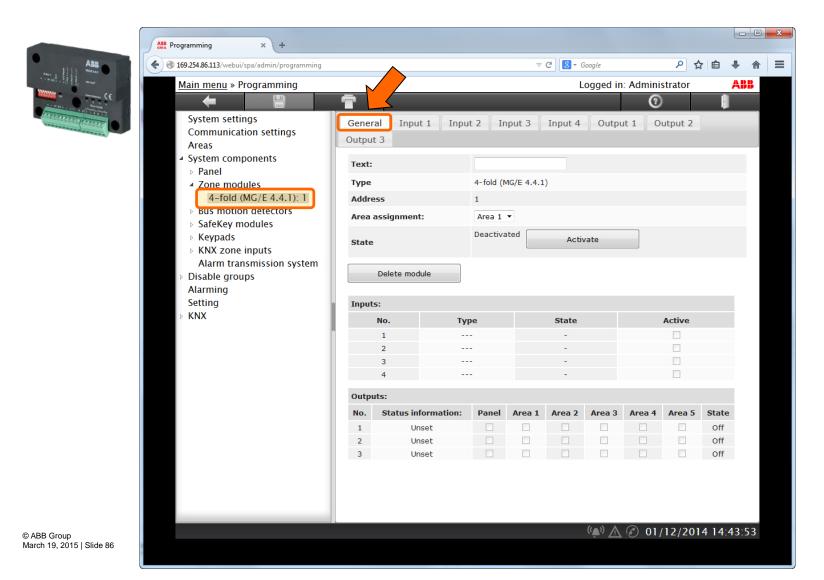






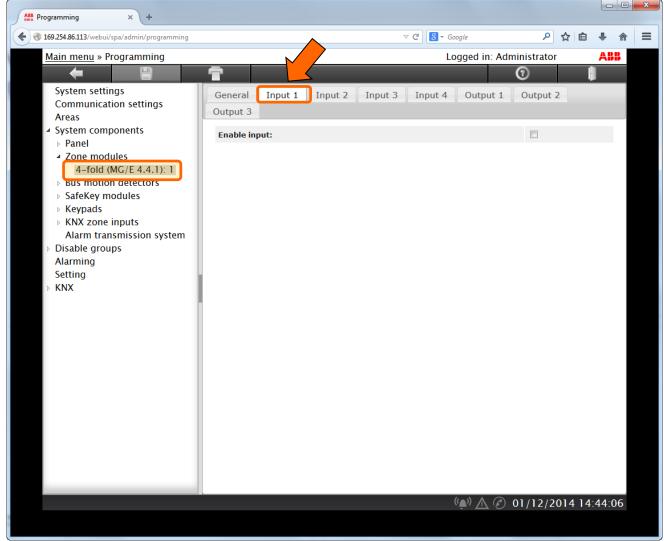




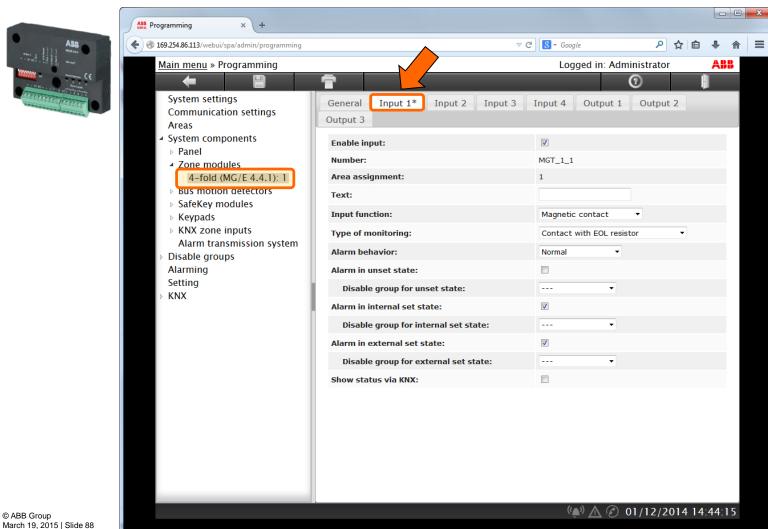






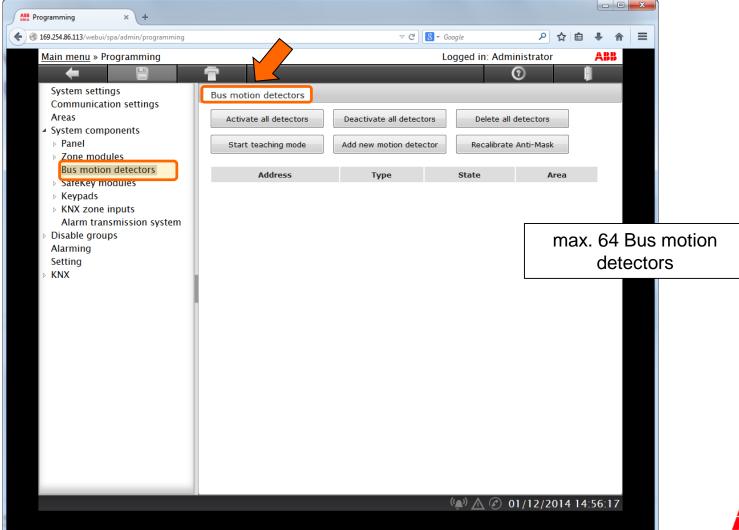






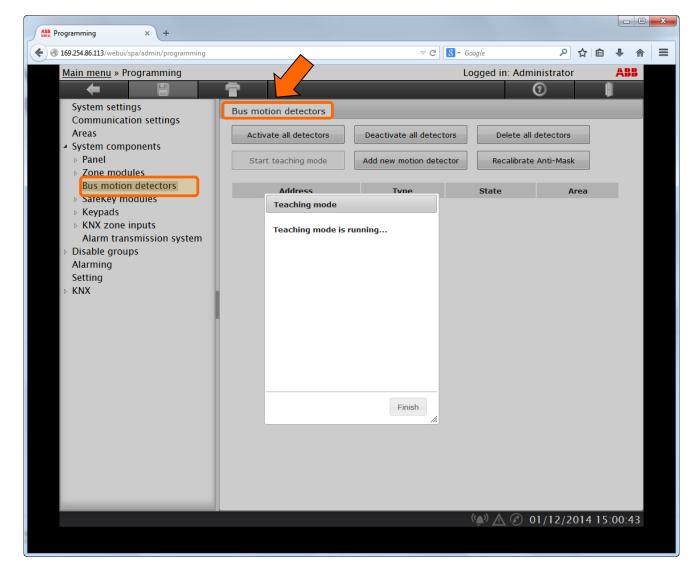






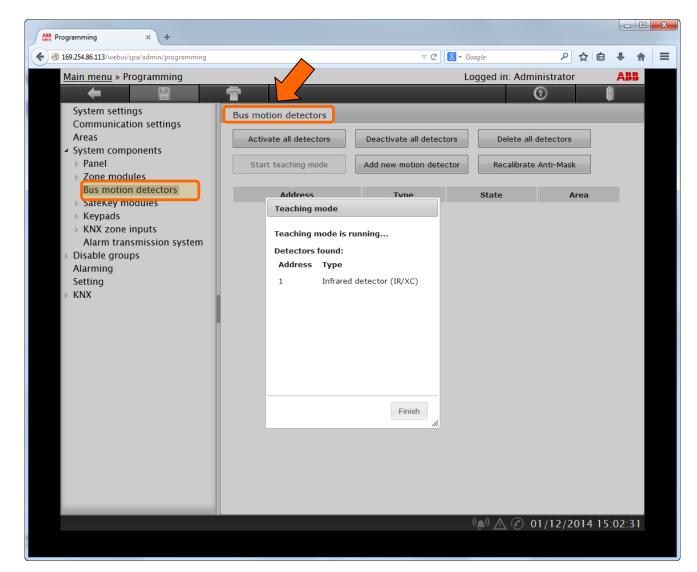






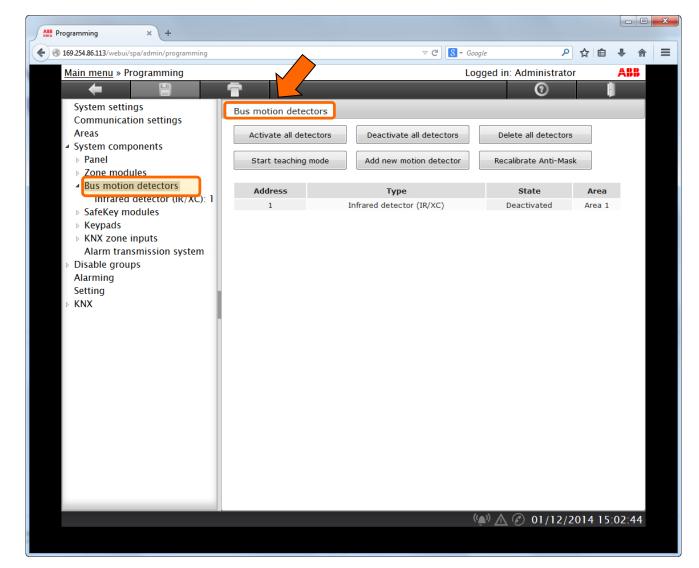






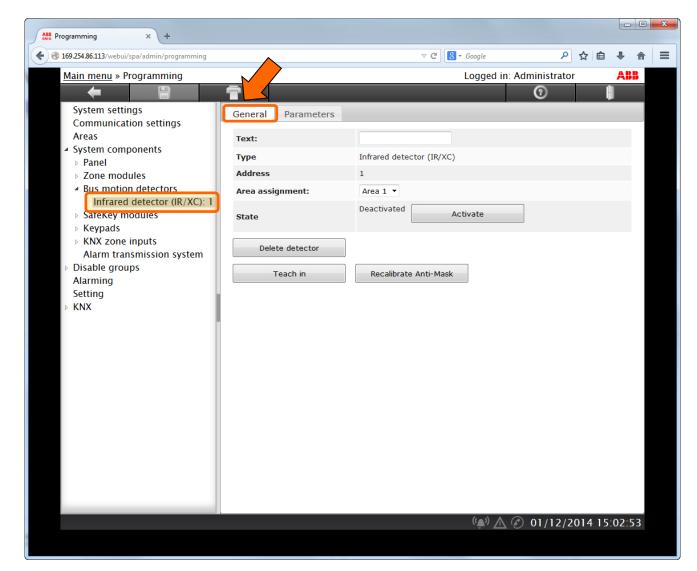






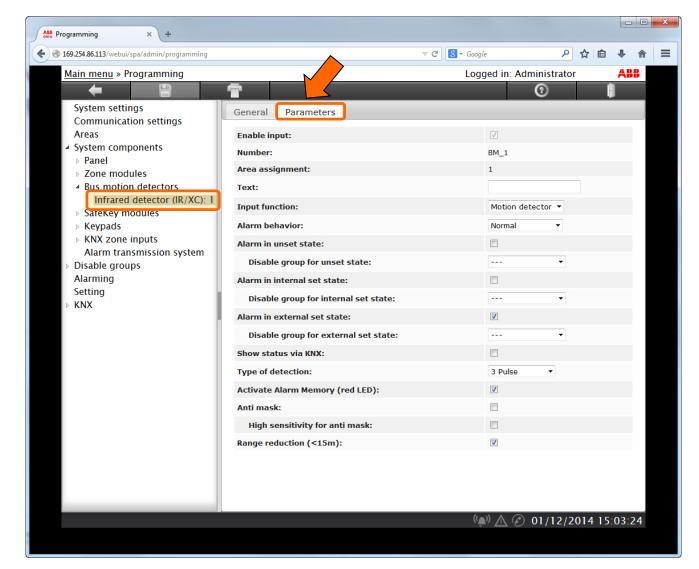




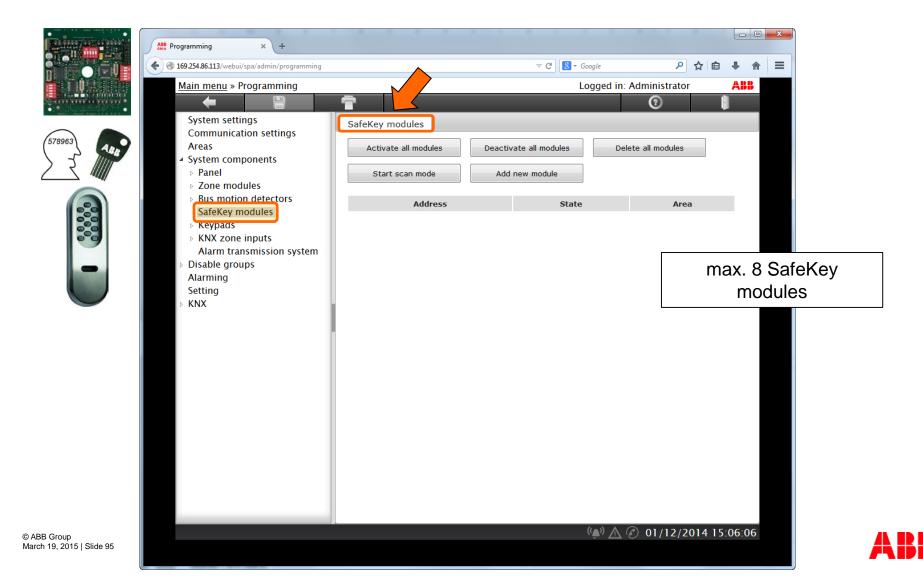


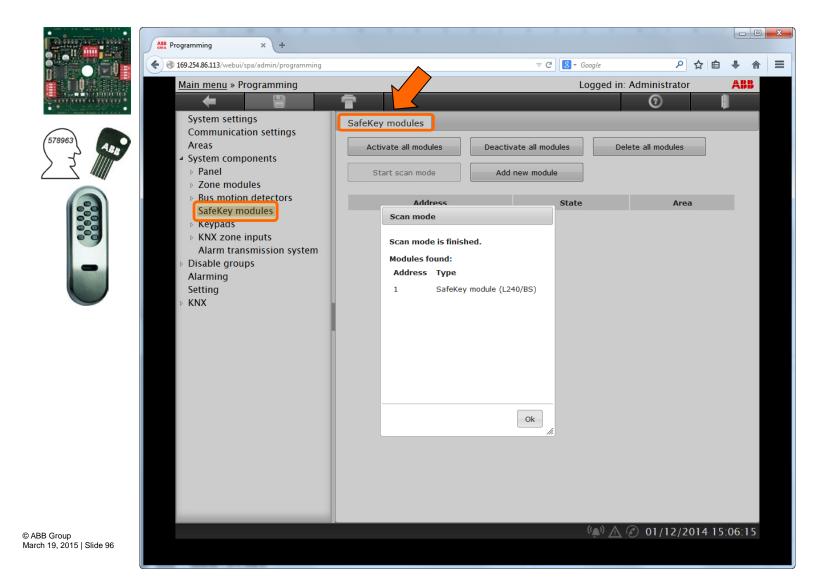




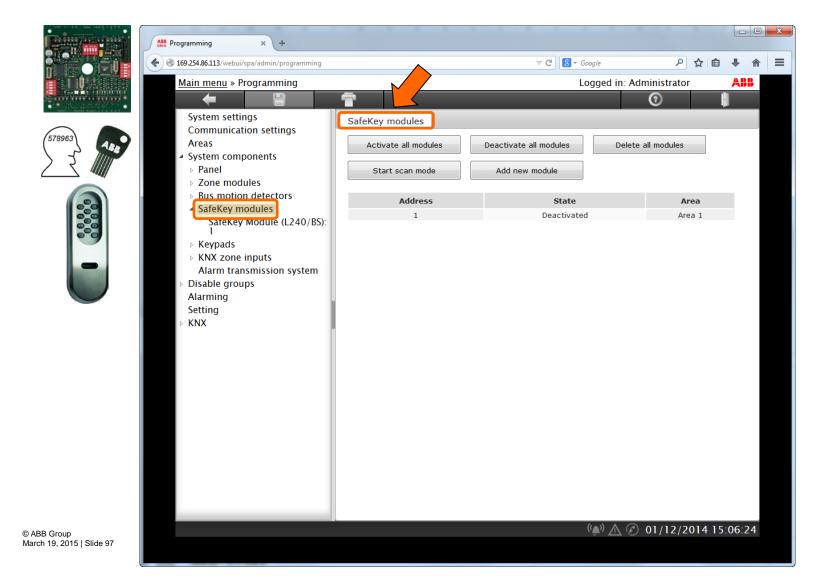




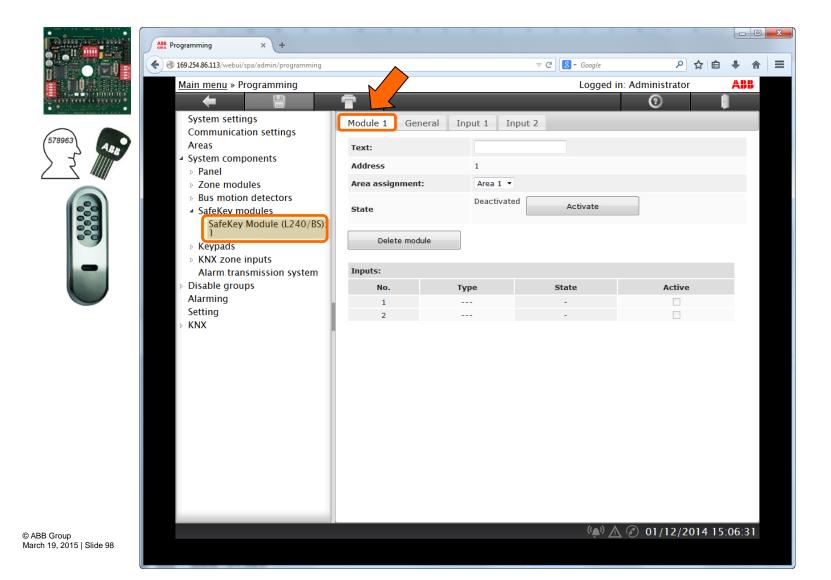




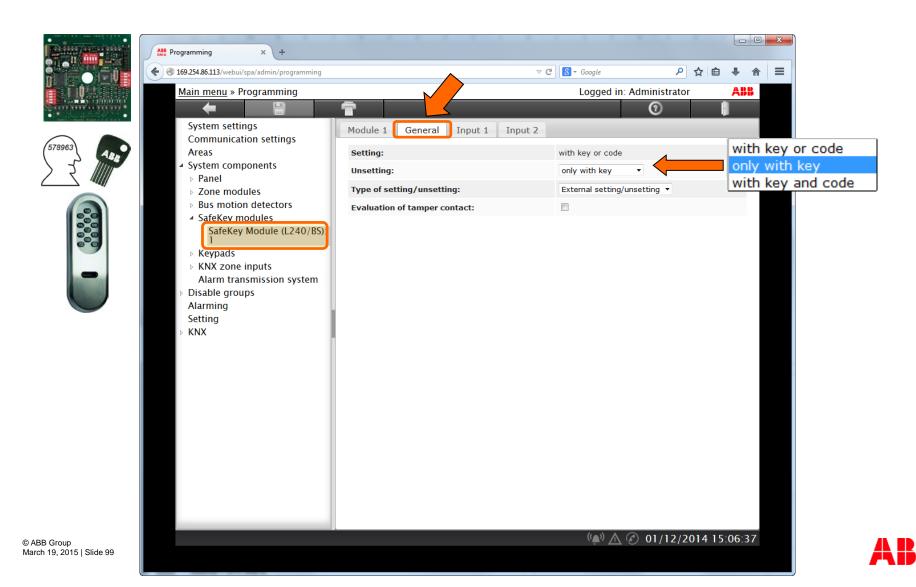


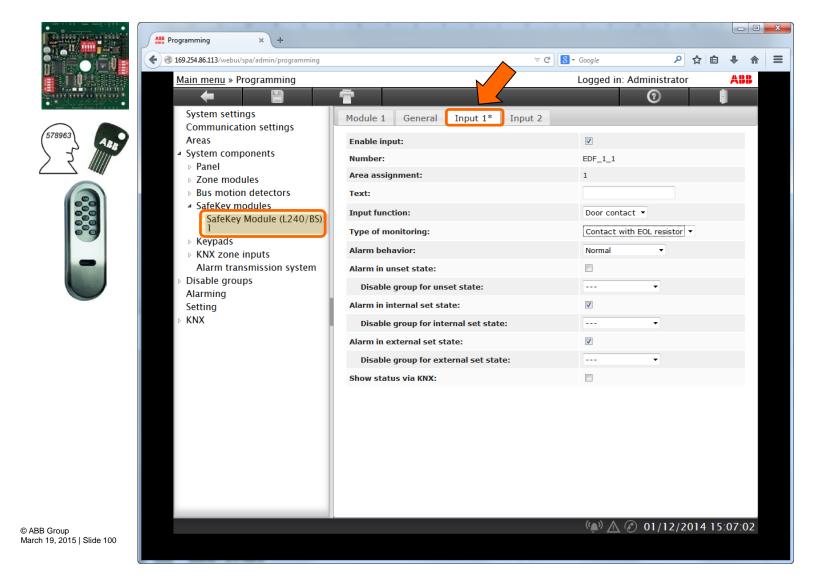




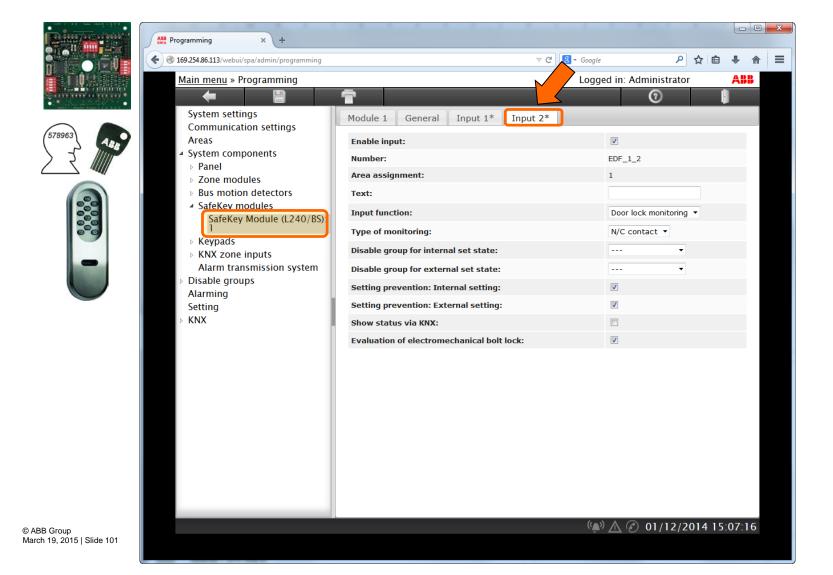






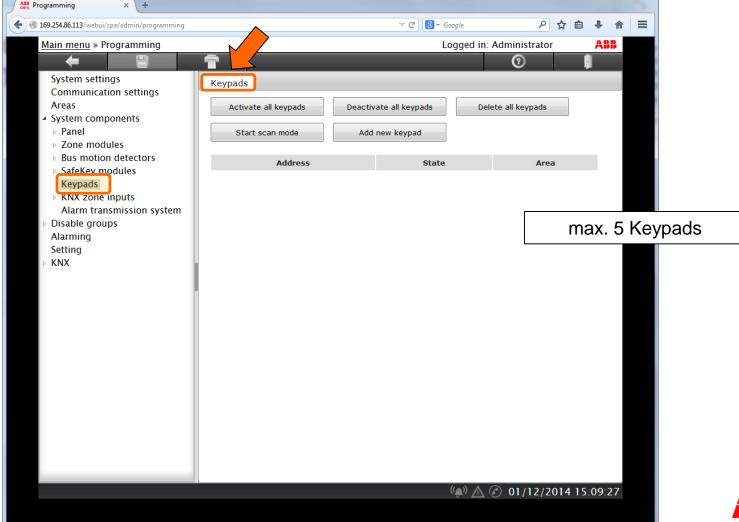








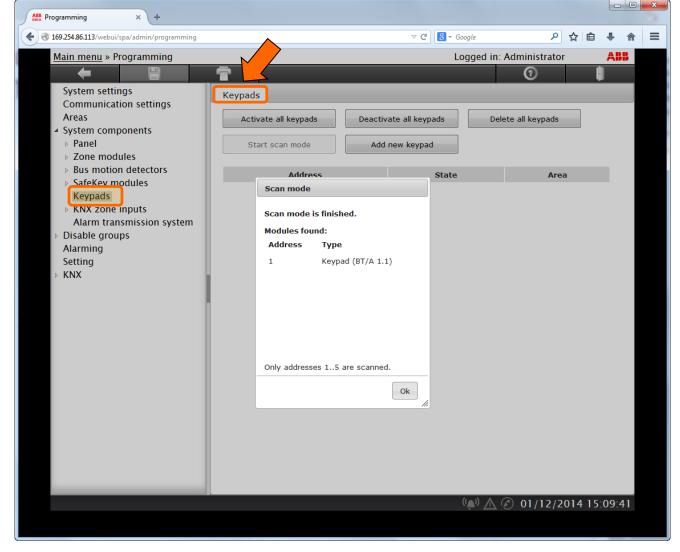






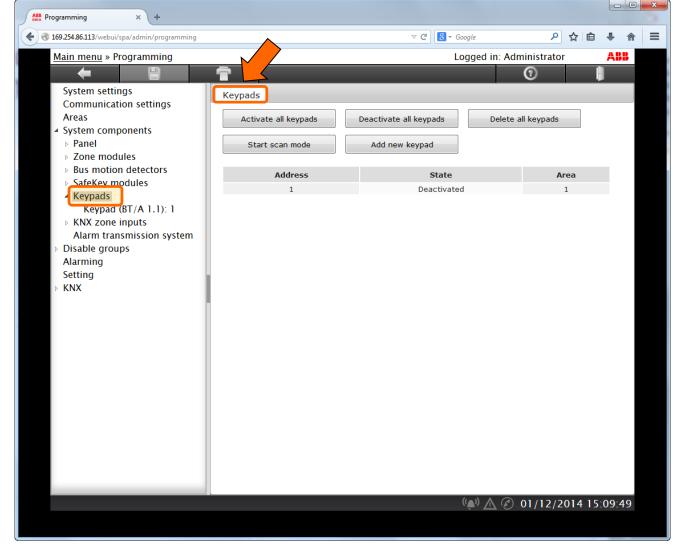
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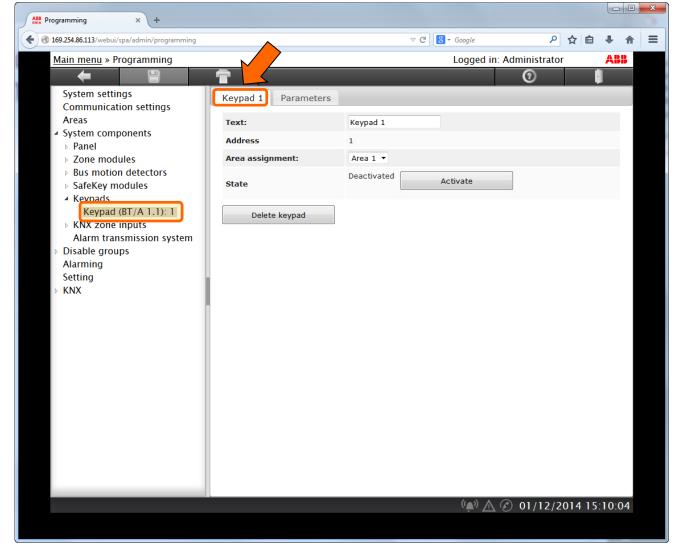








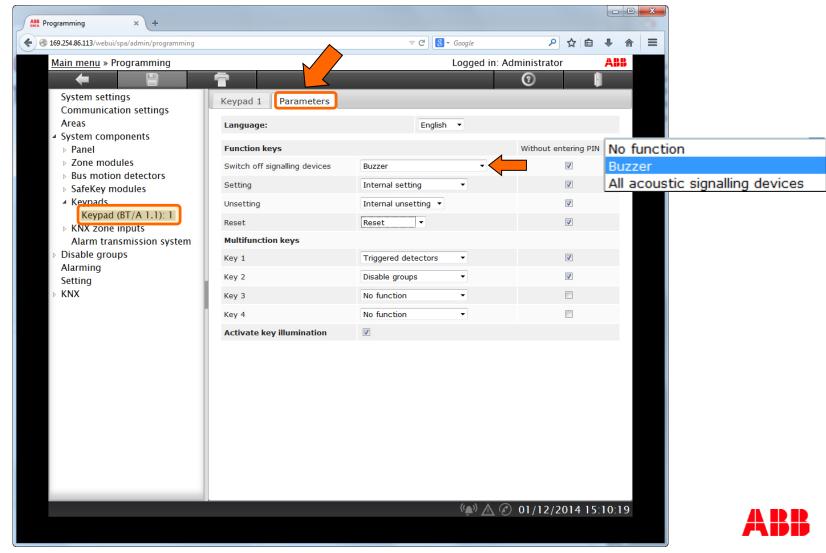






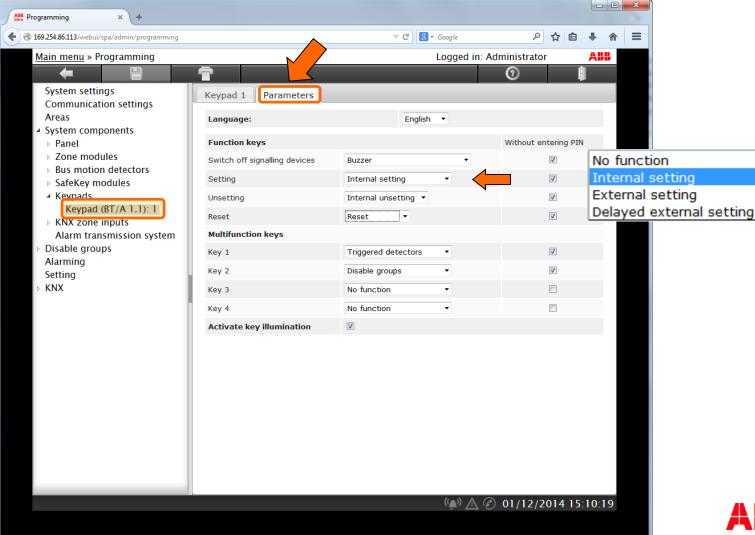








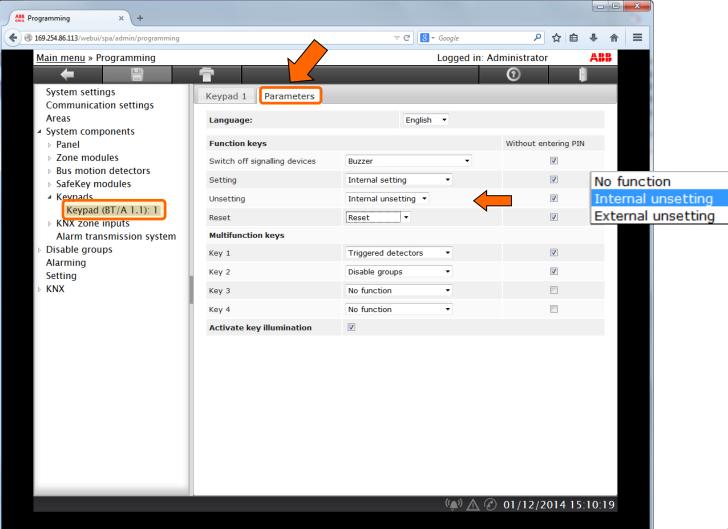










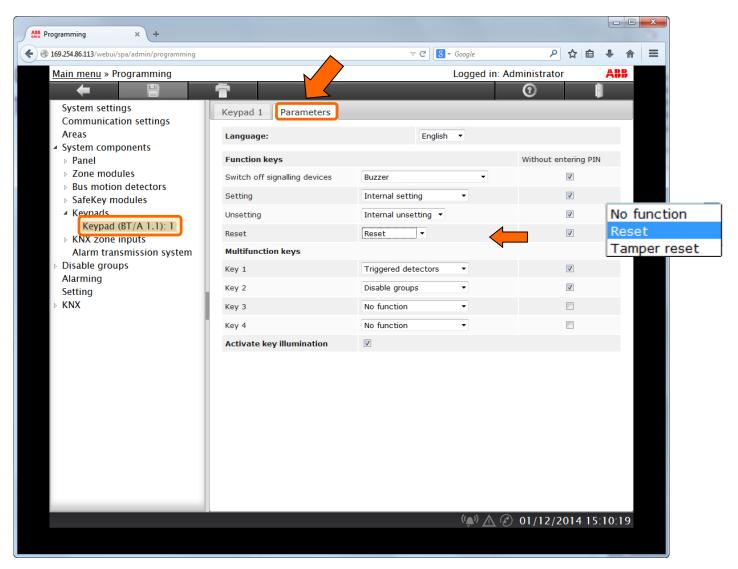




KNX Security Panel GM/A 8.1 Programming – System Components: Keypads





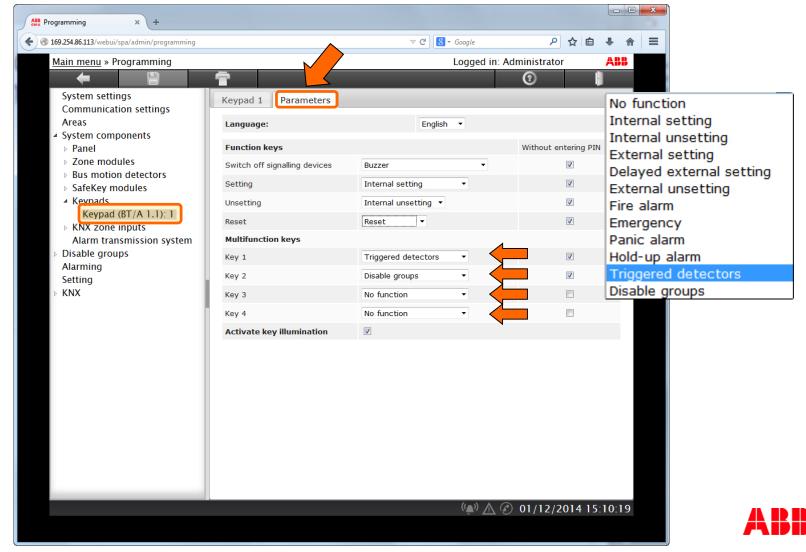




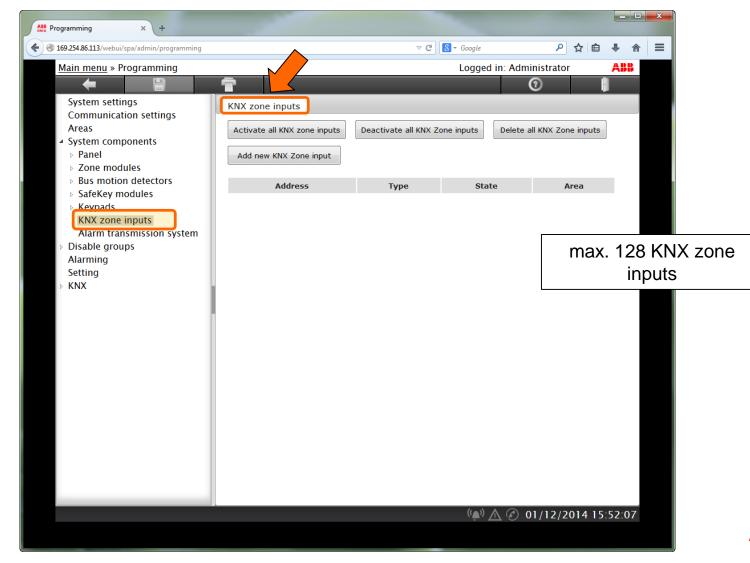
KNX Security Panel GM/A 8.1 Programming – System Components: Keypads





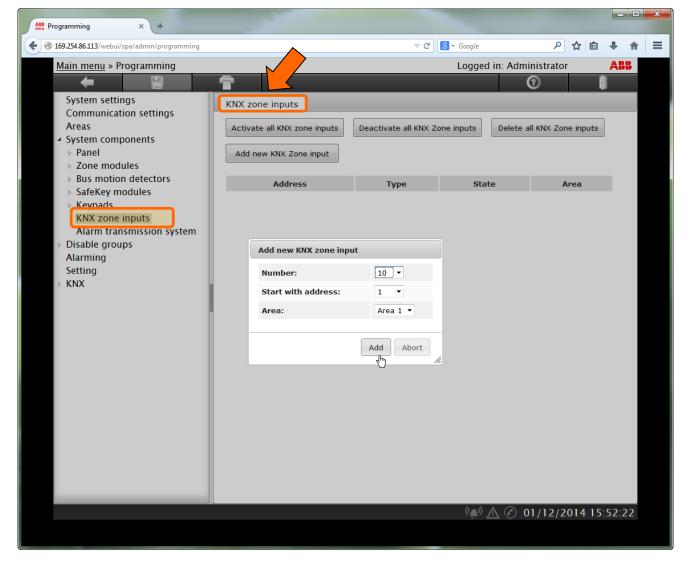






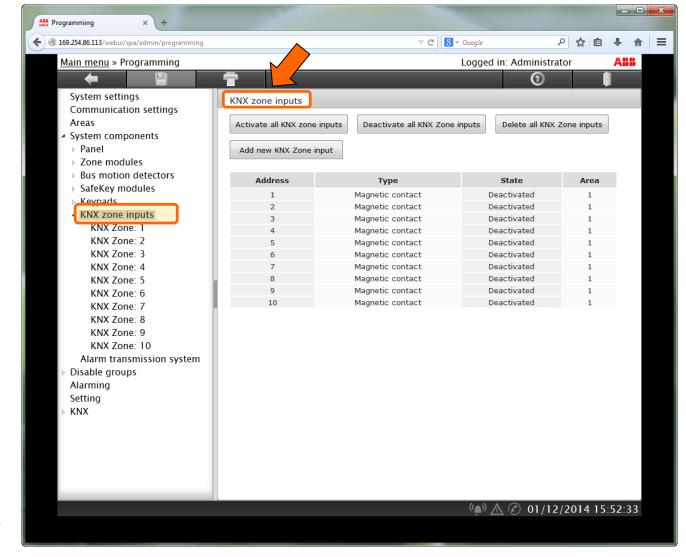








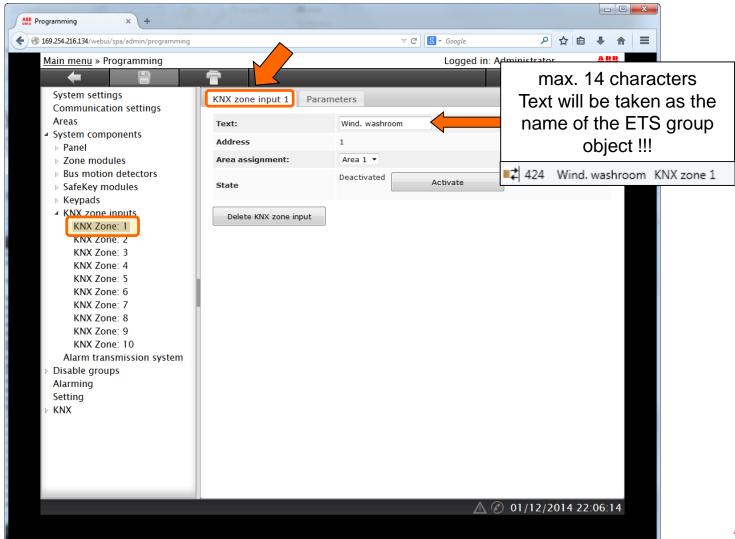






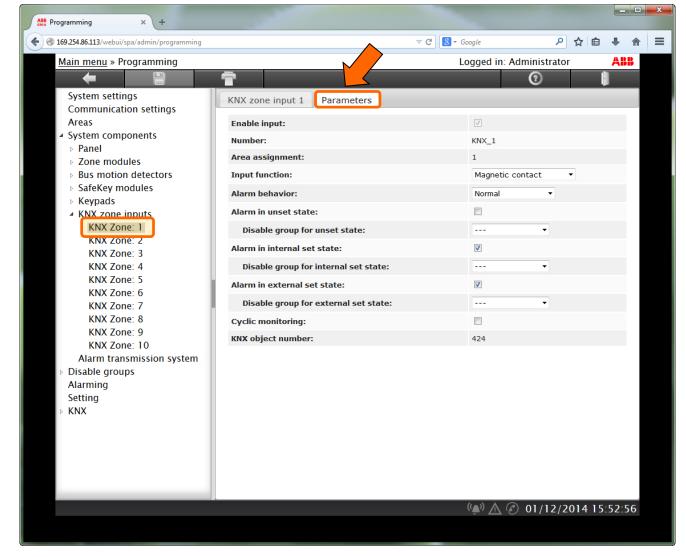






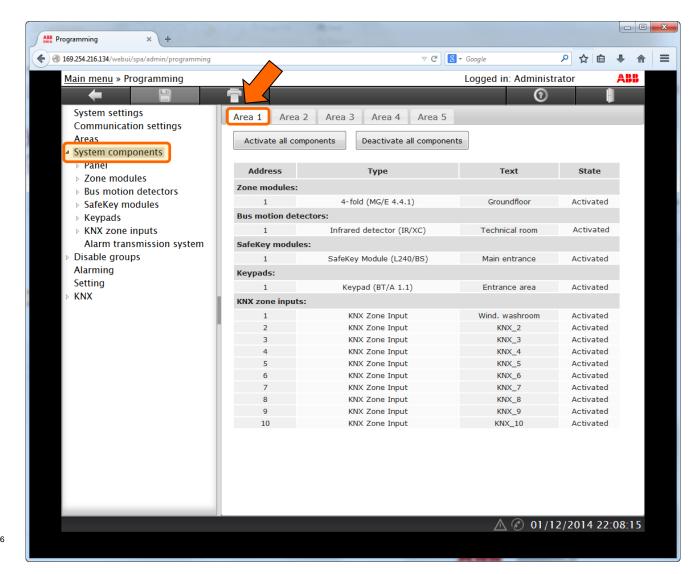






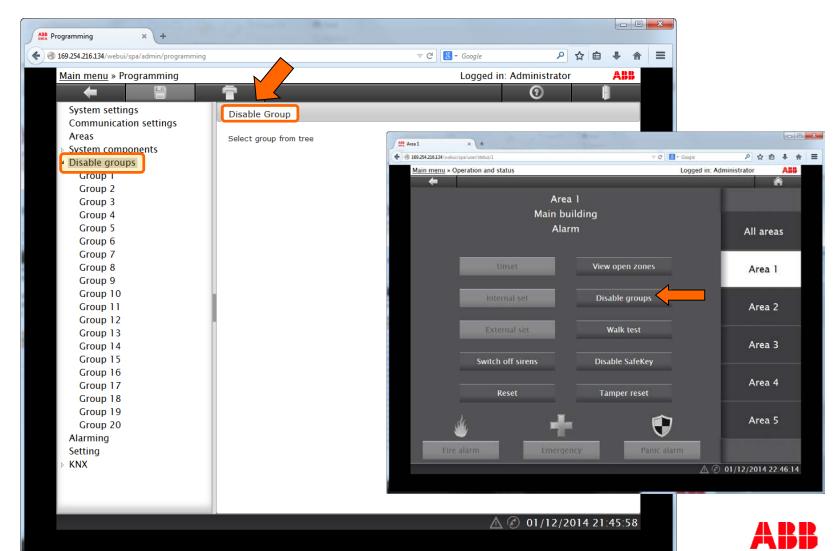


KNX Security Panel GM/A 8.1 Programming – System Components: Activation

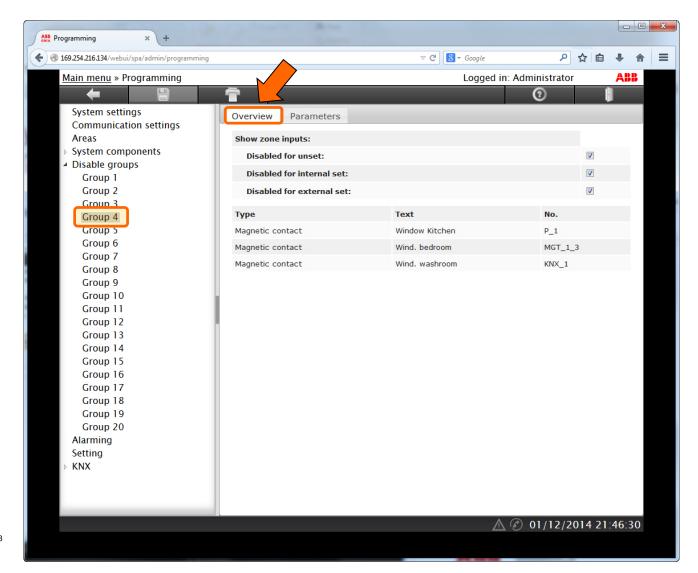




KNX Security Panel GM/A 8.1 Programming – Disable Groups

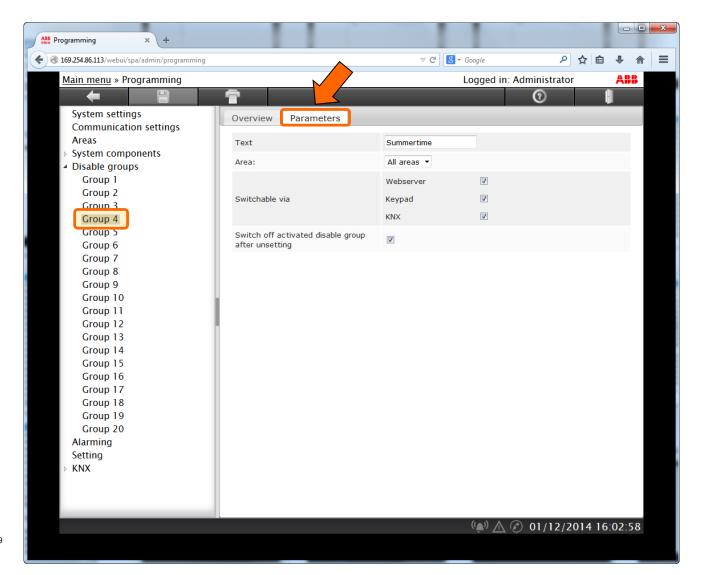


KNX Security Panel GM/A 8.1 Programming – Disable Groups

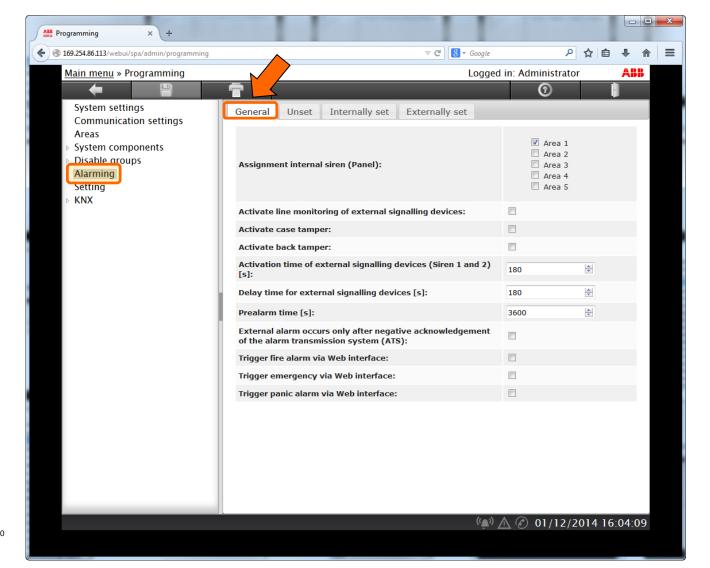




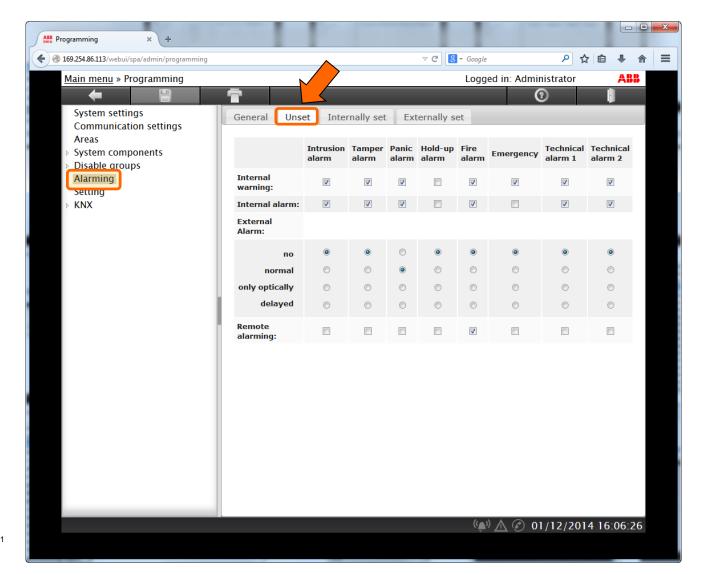
KNX Security Panel GM/A 8.1 Programming – Disable Groups



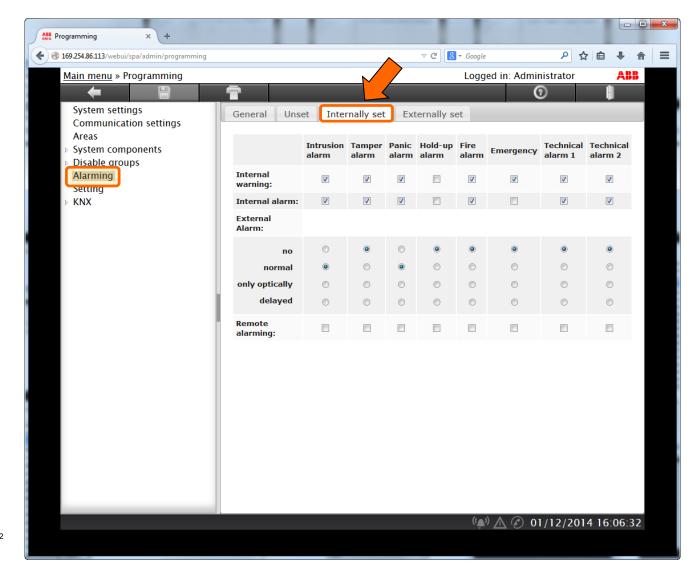




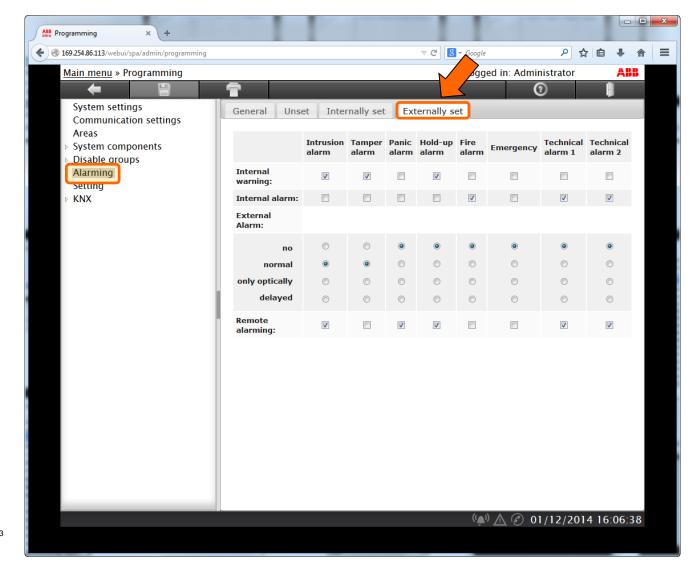




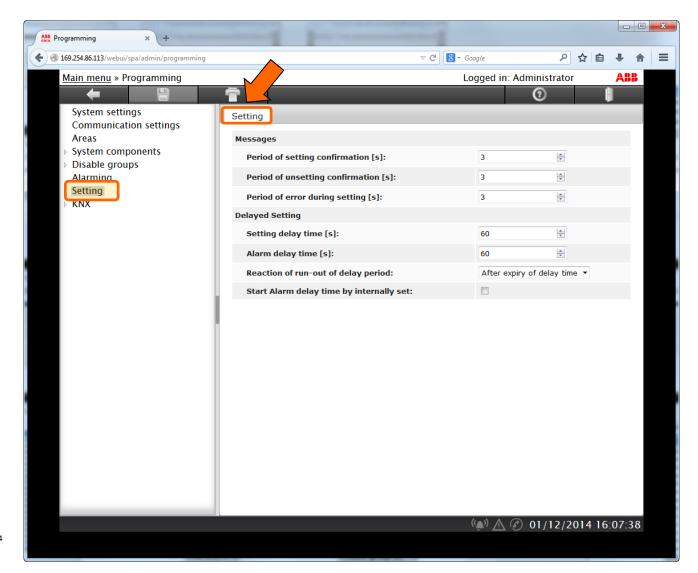






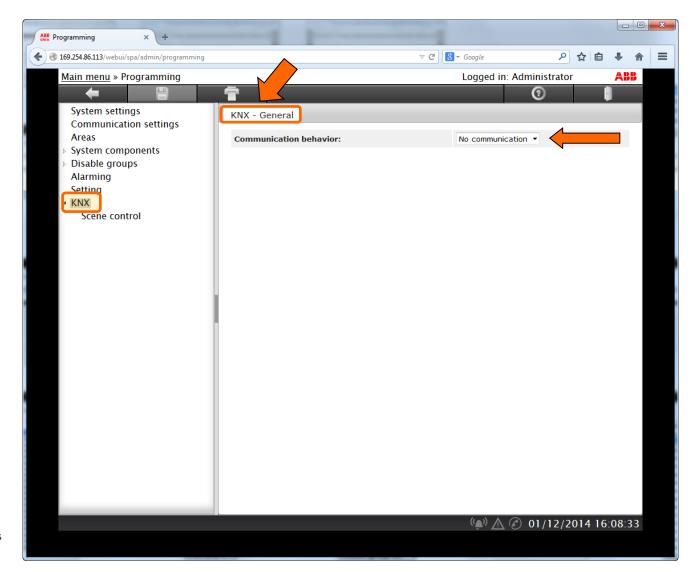








KNX Security Panel GM/A 8.1 Programming – KNX





KNX Security Panel GM/A 8.1 Programming – KNX: Max. 551 group objects!

Unidirectional:

- Status of GM/A can be completly transmitted to KNX, for each area separately (e.g. zones, set/unset, alarms, SafeKey)
- 14 Byte text messages (System state, triggered zone inputs of each area)
- Scene control

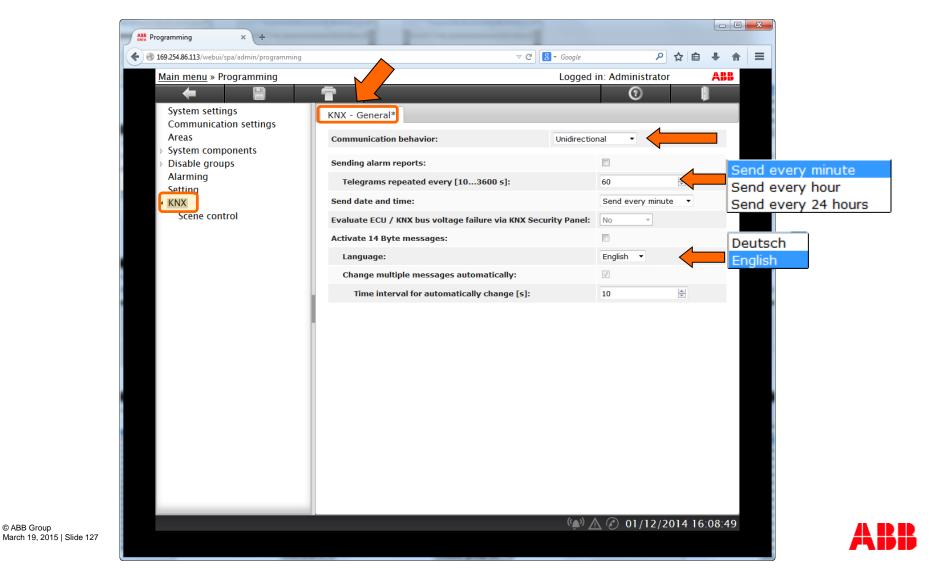
Bidirectional additionally:

- Set/Unset the system (internally, externally, delayed)
- 128 KNX zone inputs (cyclical monitoring possible)
- Reset/Tamper reset
- Activate/Deactivate disable groups

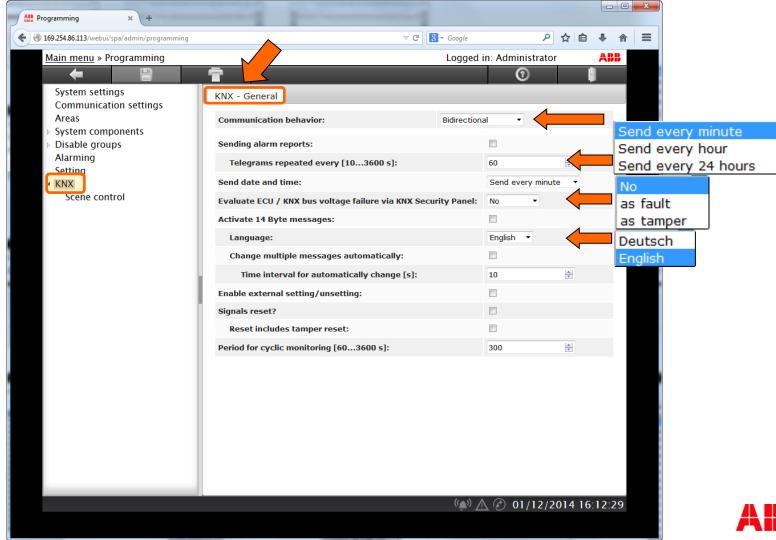


KNX Security Panel GM/A 8.1 Programming – KNX

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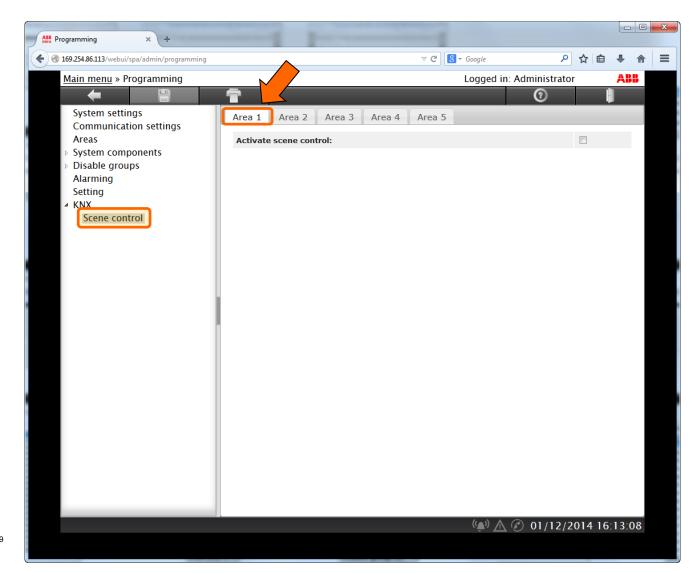


KNX Security Panel GM/A 8.1 Programming – KNX



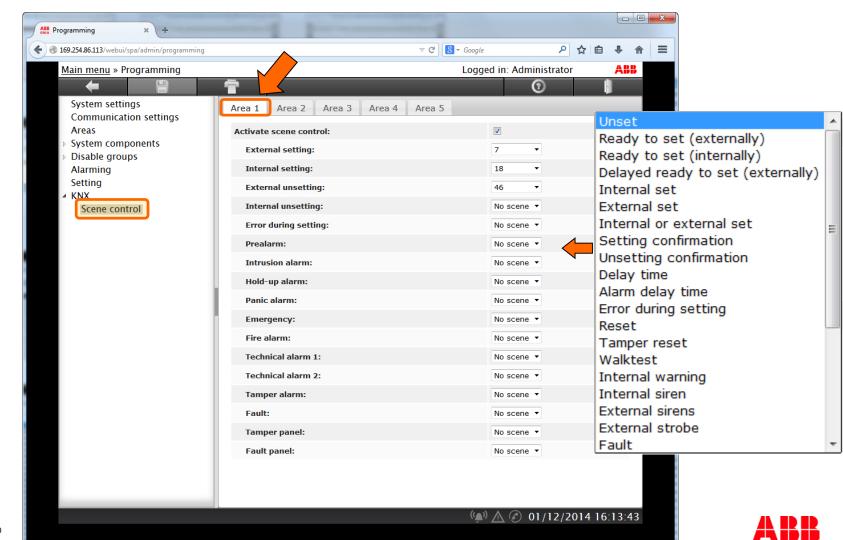


KNX Security Panel GM/A 8.1 Programming – KNX Scene Control





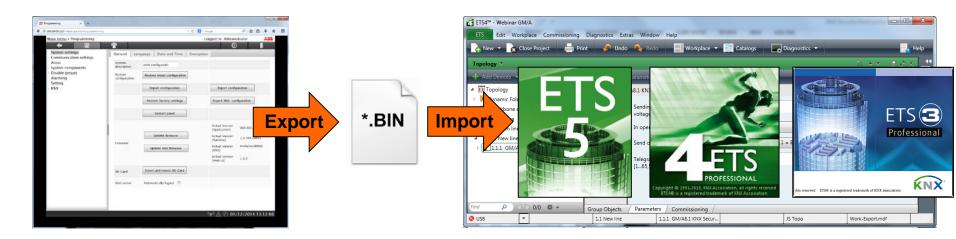
KNX Security Panel GM/A 8.1 Programming – KNX Scene Control





Export and Import of KNX Configuration

- Prior to the import of the KNX configuration it has to be exported via Web Interface of the KNX Security Panel
- After product added into ETS with right mouse click on the component a pop up menu will appear:
 - → "Plug-In" → "Import alarm panel configuration"



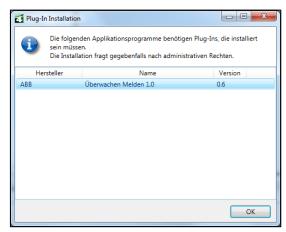




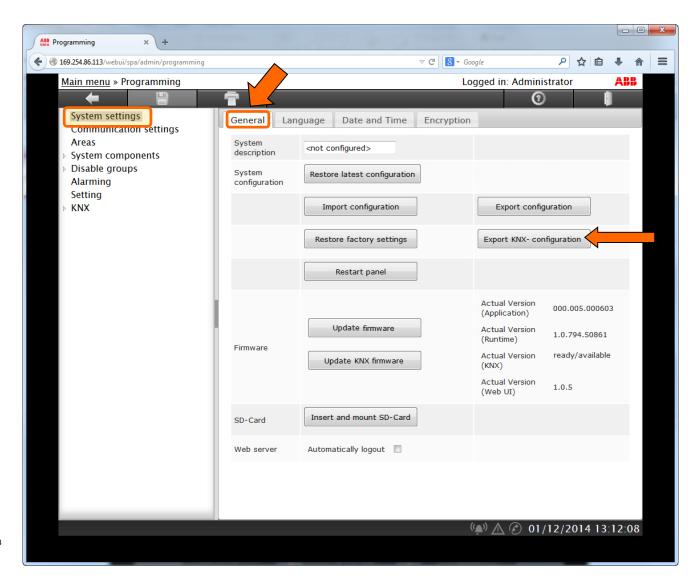
ETS Plug-In (only the first time)

- ETS Plug-In is necessary to import the KNX configuration of the GM/A 8.1 into ETS
- Via Plug-In all required communication objects will be enabled
- During the initial import of the product in ETS a message "missing Plug-In" comes up
- By confirming with OK the installation assistent of ETS Plug-In will be started and installation will be carried out



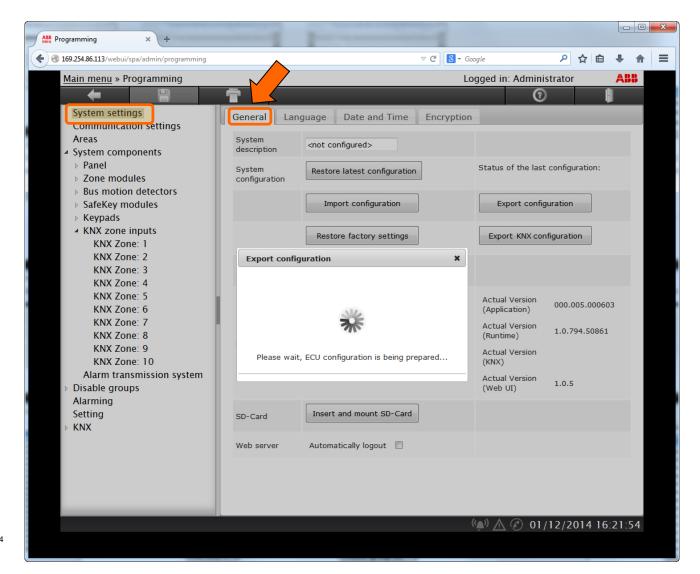




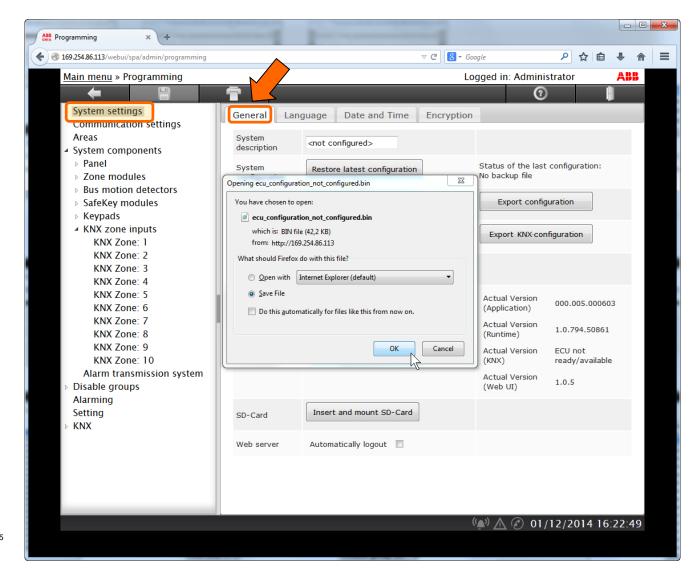




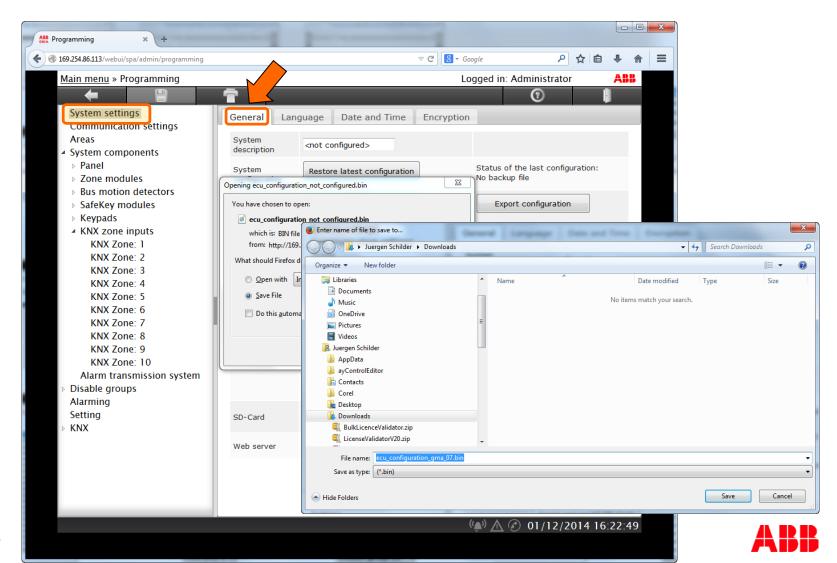










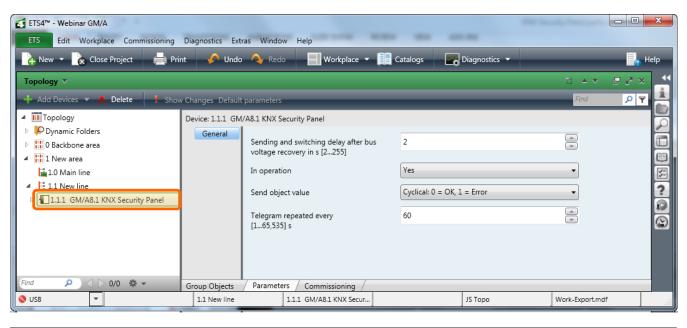


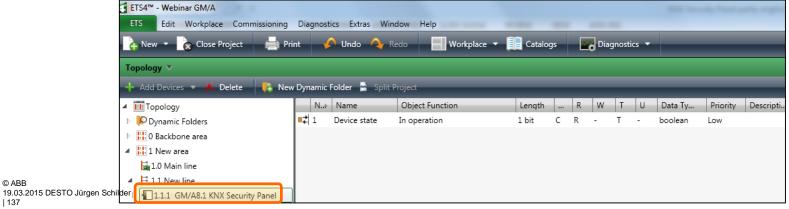
KNX Security Panel GM/A 8.1 KNX and ETS - Parameter



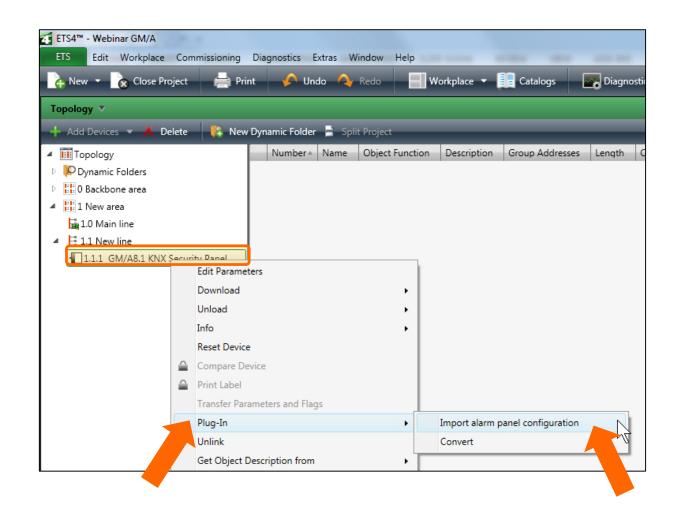
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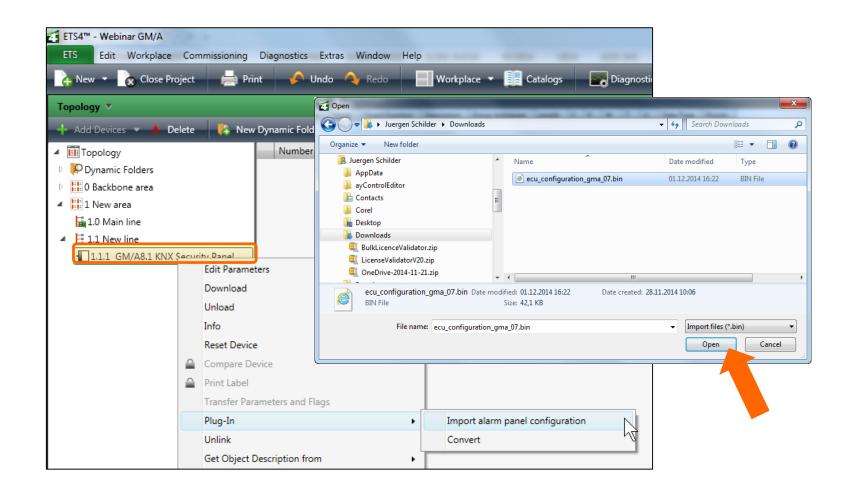




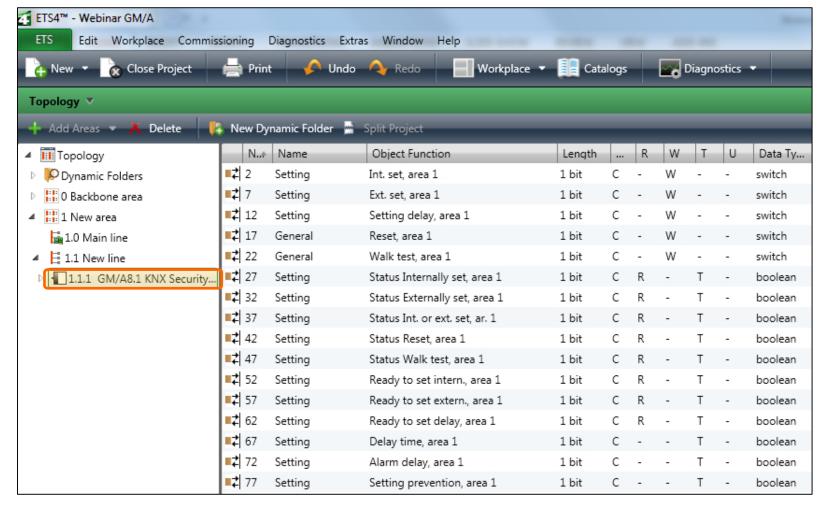




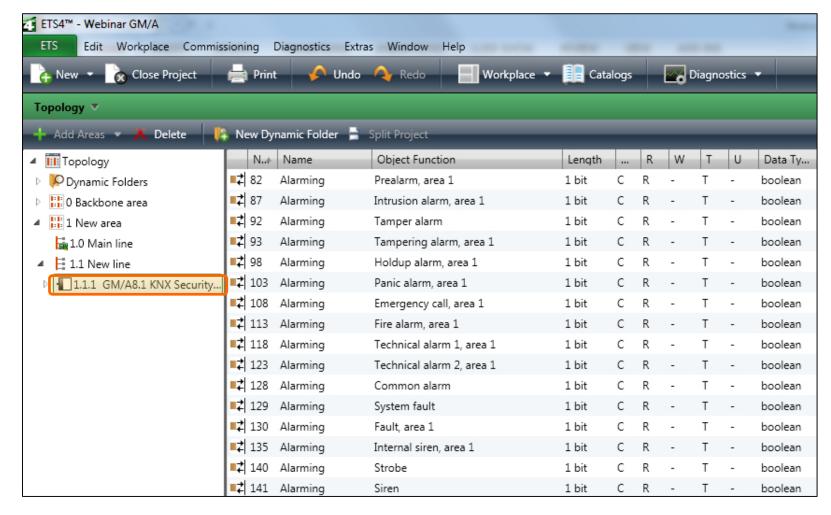






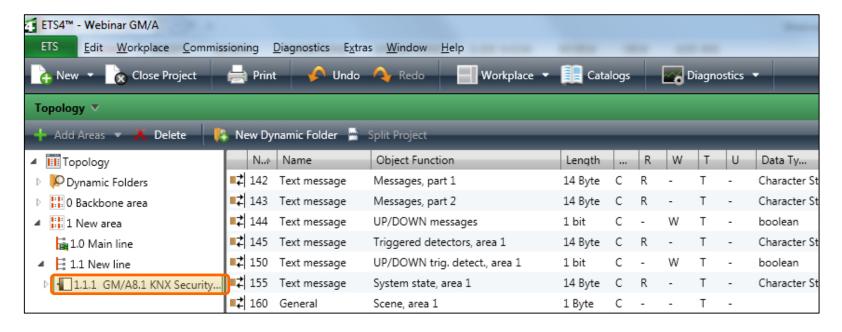








KNX Security Panel GM/A 8.1 KNX and ETS: Text messages



Messages part 1: Plain text e.g. intrusion/tamper/panic/...alarm

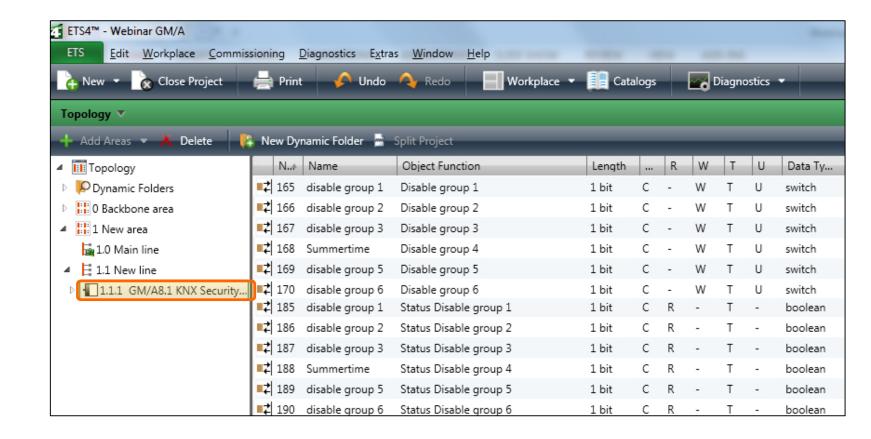
Messages part 2: Detailed information, e.g. name of the sensor/device/...

Triggered detectors: Name of the sensor

System state: Plain text e.g. unset, ready to set, externally set, fault

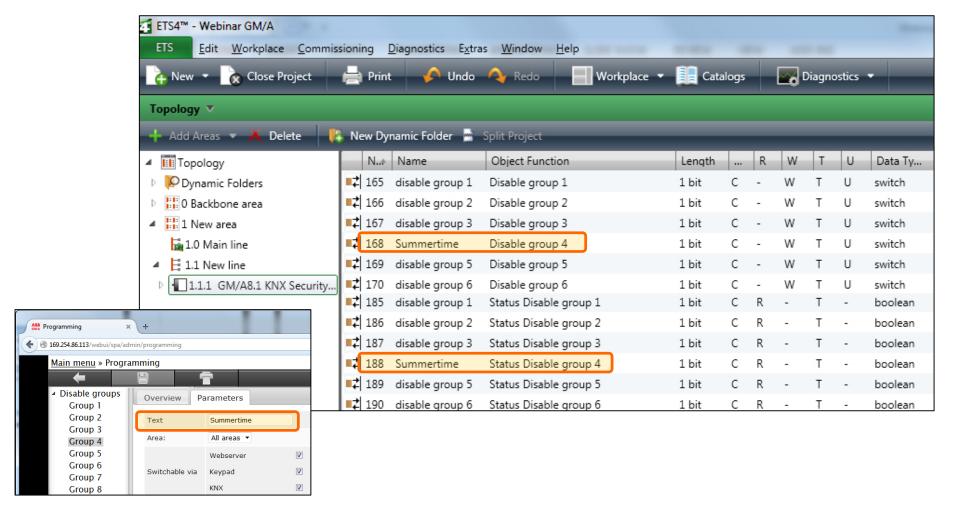
UP/DOWN: "0" read previous (earlier) message and "1" read next (older) message



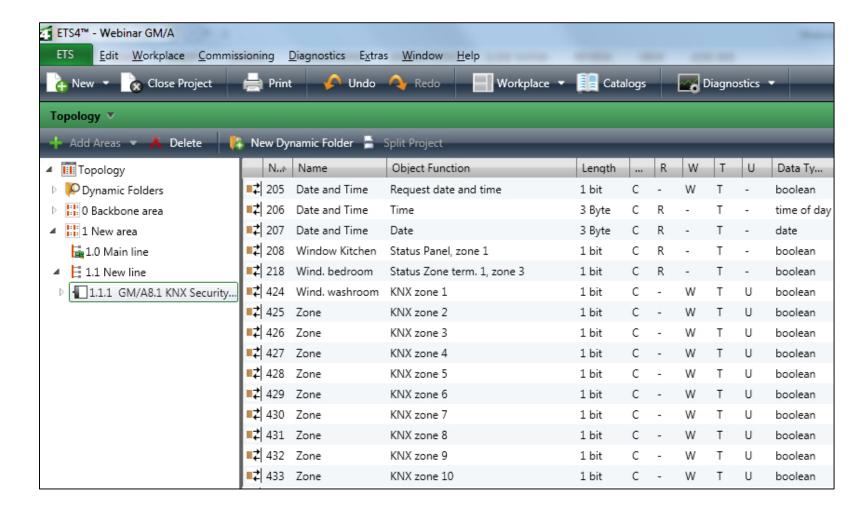




KNX Security Panel GM/A 8.1 KNX and ETS – Text: Disable group 4

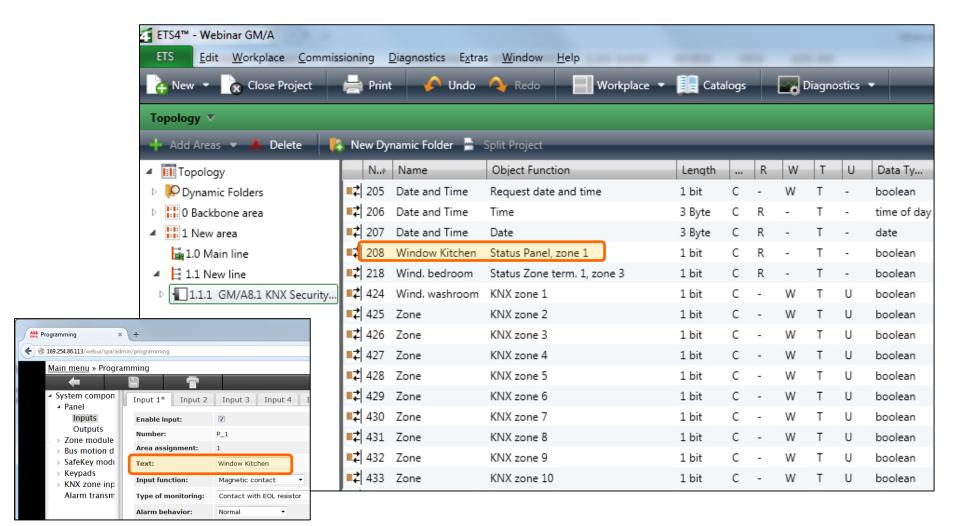






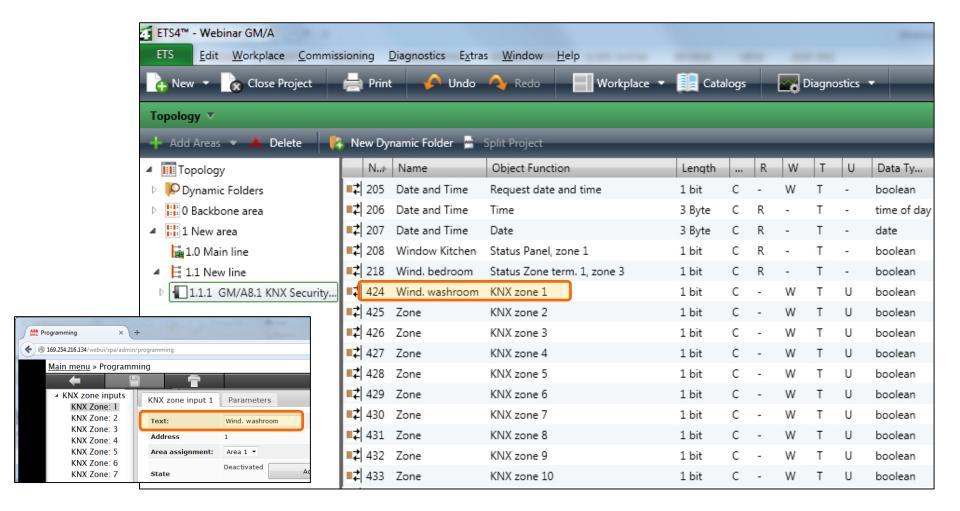


KNX Security Panel GM/A 8.1 KNX and ETS – Text: Status of panel zone input 1





KNX Security Panel GM/A 8.1 KNX and ETS – Text: KNX zone input 1

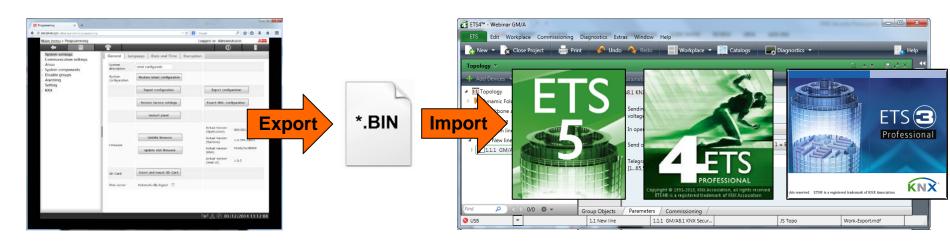






Note

- In case of changes of the KNX configuration of the GM/A 8.1 it has to be imported into ETS again
- All existing group adresses will remain as before
- Only changes will be synchronised





KNX Security Panel GM/A 8.1 Training 2015









KNX Security Panel GM/A 8.1 Next Webinar

18th of February 2015



- Weather Sensor WES/A 3.1
- Weather Unit WZ/S 1.3.1.2
- Weather Station WS/S 4.1.1.2

Analogue Input AE/S 4.1.1.3





To connect all common weather sensors for brightness, rain, wind speed/direction, light intensity, pyranometers,





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KNX Security Panel GM/A 8.1 Webinars 2014





- Thank you for participating in our webinars
- We wish you a merry and blessed Christmas season and good fortune, health and success in the New Year 2015





Power and productivity for a better world™

