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Train the Trainer

Commissioning Safety & Security



Spring 2008

Commissioning Safety & Security Introduction



Procedure to be followed when commissioning safety and security:



- 1. Make the basic configuration on the central apartment unit.
- 2. Connect the RF components (KNX RF).
- 3. Make the binding test.
- 4. If required, make the configuration of wire bus communication (KNX TP1).
- 5. Set the parameters required for safety and security.



Commissioning Safety & Security Introduction



Prerequisites

Before starting the actual commissioning process, the following points must be observed:

- The central apartment unit and any heating circuit controllers are correctly installed and wired and connected to AC 230 V
- The door / window contacts and smoke detectors have their batteries inserted
- The smoke detector is equipped with the optional "Smoke module wave uni" (to be ordered as a separate item)



Commissioning Safety & Security Introduction



To start the basic configuration, switch to the expert level.

Menu item *Basic configuration* offers the following parameters:

- Rooms
- Doors
- Light state
- Faults
- Outputs
- Info pages



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Commissioning Safety & Security Smoke Supervision

Smoke detectors

Smoke detectors are **always** assigned to a room, which means that a room type must be defined for the respective room:

Main menu > Commissioning > Basic configuration > Rooms > Room x > ...

- Heating type
- Cooling type
- Supervision only

Per room, only one smoke detector can be installed.

It is also possible to include a smoke detector (input or output) via KNX TP1 (S-mode).



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Commissioning Safety & Security Smoke Supervision

Connecting the device

a) Switch the central apartment unit to binding mode:

Main menu > Commissioning > RF connections > Smoke detector > Room x > Connect device

- b) Press the Alarm button on the smoke detector for > 2 s => loud signal tone
- c) Within 5 s after b), press the button on the smoke detector module for < 3 s
 => connection successful: LED blinks and signal tone on the central apartment unit



Commissioning Safety & Security Window Supervision

Window contact

Windows are **always** assigned to a room, which means that a room type must be assigned to the respective room:

Main menu > Commissioning > Basic configuration > Rooms > Room x > ...

- Heating type
- Cooling type
- Supervision only

Per room, a maximum of 6 window contacts can be included via KNX RF. Another external hard-wired contact can also be connected to a RF window contact (e.g. window with 2 wings).

One window contact per room (window state: Input or output) can be included via KNX TP1 (S-Mode) .

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Commissioning Safety & Security Window Supervision



Connecting devices

- a) Switch the central apartment unit to binding mode:
 Main menu > Commissioning > RF connections > Rooms > Room x > Connect device
- b) Press the button an the window contact for > 1 s => connection successful: LED blinks and the central apartment unit delivers a signal tone



Commissioning Safety & Security Door Supervision



Door contact

Main menu > Commissioning > Basic configuration > Doors > Door x > ...

- Door x (name)
- Function

Per **apartment / house, a maximum of 2 doors** can be included via KNX RF.



Both door contacts can be individualy included via KNX TP1 (S-mode) (door state: input or output).



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Commissioning Safety & Security Door Supervision



Connecting devices

- a) Switch the central apartment unit to binding mode:
 Main menu > Commissioning > RF connections > Doors > Door x > Connect device
- b) Press the button on the window contact for > 1 s => connection successful: LED blinks and the central apartment unit delivers a signal tone



Commissioning Safety & Security Window / Door State



Basic configuration

Main menu > Commissioning > Basic configuration > Outputs > Window/door state > . . .

The window / door state can be passed on via:

Settings	Description
	Inactive - not activated
Via RF / S-Mode	Output via a relay output Q of a heating circuit controller RRV91x or via a multicontroller RRV934 Output via S-Mode KNX TP1
Q (local)	Output via internal relay Q1 of the central apartment unit

Note:

An **output function that is not required should be deactivated** ("---"), thus ensuring that all information about the functions and the operating lines will be hidden.



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Commissioning Safety & Security Window / Door State

Establishing the RF connection

Menu *RF connections* contains the respective function groups, analogous to the function groups activated and defined in the basic configuration. The relevant devices / channels can now be assigned to the activated function groups:

RF connection dialog	Description
Connect device:	Readiness of central apartment unit to open a connection to a partner device
Disconnect device:	Readiness of central apartment unit to disconnect a partner device
Device list:	List of attuned devices / channels of the respective function groups

Main menu > Commissioning > RF connections > Outputs > Window/door state > ...

Wiring test:

Main menu > Commissioning > Wiring test > Outputs > Window/door state > {On/Off}



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Commissioning Safety & Security Window / Door State



Info pages

For the state of windows and doors to be shown on the info page, the respective function must be activated:

Main menu > Commissioning > Basic configuration > Info pages > Windows/doors

i Windows/doors	11/12
ዠ Bedroom	
💓 Cellar	
ဤ Living room	
🎬 Kitchen	T

i Windows/doors	11/12
All closed	



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Commissioning Safety & Security Fault Inputs



Basic configuration

Commissioning > Basic configuration > Faults > Fault input x > . . .

The central apartment unit can handle a total of **8 fault status messages**. The fault status messages can arrive as follows:

Settings	Description
	Not activated
Via RF / S-Mode	Input via universal input B of a heating circuit conroller RRV91x or a multicontroller RRV934 Input via a window/door contact Input via S-Mode KNX TP1
B (locally)	Input via the internal universal input B of the central apartment unit

Note:

An **fault function that is not required should be deactivated** ("---"), thus ensuring that all information about the functions and the operating lines will be hidden.



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Commissioning Safety & Security Fault Inputs

Establishing the RF connection

Menu *RF connections* contains the respective function groups – analogous to the function groups activated and defined in the basic configuration. The relevant devices *I* channels can now be assigned to the activated function groups:

RF connection dialog	Description
Connect device:	Readiness of central apartment unit to open a connection to a partner device
Disconnect device:	Readiness of central apartment unit to disconnect a partner device
Device list:	List of attuned devices / channels of the respective function groups

Main menu > Commissioning > RF connections > Faults > Fault input x > ...

Wiring test:

Main menu > Commissioning > Wiring test > Faults > Fault input x > {State}



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Commissioning Safety & Security Fault Outputs



Basic configuration

Main menu > Commissioning > Basic configuration > Faults > Fault output x > . . .

The central apartment unit can pass on a total of **2 fault status messages**. The fault status messages can be output as follows:

Settings	Description
	Inactive - not activated
Via RF	Output via a relay output Q of a heating circuit controller RRV91x or a multicontroller RRV934
Q (local)	Output via internal relay Q1 of the central apartment unit

Note:

An **input function that is not required should be deactivated** ("---"), thus ensuring that all information about the function and the operating lines will be hidden.



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Commissioning Safety & Security Fault Outputs

Establishing the RF connection

Menu *RF connections* contains the respective function groups – analogous to the function groups activated and defined in the basic configuration. The relevant devices / channels can now be assigned to the activated function groups:

RF connection dialog	Description
Connect device:	Readiness of central apartment unit to open a connection to a partner device
Disconnect device:	Readiness of central apartment unit to disconnect a partner device
Device list:	List of attuned devices / channels of the respective function groups

Main menu > Commissioning > RF connections > Faults > Fault output x > ...

Wiring test:

Main menu > Commissioning > Wiring test > Faults > Fault output x > {On/Off}



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Commissioning Safety & Security Fault Outputs

Example



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Commissioning Safety & Security Status Output



Basic configuration

Main menu > Commissioning > Basic configuration > Outputs > Status output > . . .

The status output can be passed on as follows:

Settings	Description
	Inactive - not activated
	Output via a relay output Q of a heating circuit controller
Via RF / S-Mode	RRV91x or via a multicontroller RRV934
	Output via S-Mode KNX TP1
Q (local)	Output via internal relay Q1 of the central apartment unit

Note:

An **output function that is not required should be deactivated** ("---"), thus ensuring that all information about the function and the operating lines will be hidden.



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Commissioning Safety & Security Status Output



Establishing the RF connection

Menu *RF connections* contains the respective function groups - analogous to the function groups activated and defined in the basic configuration. The relevant devices *I* channels can now be assigned to the activated function groups:

RF connection dialog	Description
Connect device:	Readiness of central apartment unit to open a connection to a partner device
Disconnect device:	Readiness of central apartment unit to disconnect a partner device
Device list:	List of attuned devices / channels of the respective function groups

Main menu > Commissioning > RF connections > Outputs > Status output > ...

Wiring test:

Main menu > Commissioning > Wiring test > Outputs > Status output > {On/Off}



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Commissioning Safety & Security Exercices

Make the following configuration

- 1. Output Q of the central apartment unit:
- 2. Input B of the central apartment unit:
- 3. Connect a smoke detector to room 1.
- 4. Connect a door contact to the apartment

Check the device lists.

Make the wiring test.

Status output Fault input

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