

# **IP Touch Panel** KNX configuration with an IP Router (IPR/S 3.x.1)

BUILDING AND HOME AUTOMATION SOLUTIONS					
DocType:	Application Guide	DocNr.	9AKK108466A2088	Revision:	А
Departmen	it: BA Engineering	Author:	Engineering Team BA/DESTO		
System:	i-bus® KNX	Product:	IP Touch Panel & IPR/S 3.x.1		
Page:	1/9	Date:	24 November 2021		



# Liability Disclaimer:

This document serves the sole purpose of providing additional, technical information and possible application and use cases for the contained products and solutions. It **does not** replace the necessary technical documentation required for planning, installation and commissioning of the product. Technical details are subject to change without notice.

Despite checking that the contents of this document are consistent with the current versions of the related hard and software of the products mentioned within, deviations cannot be completely excluded. We therefore assume no liability for correctness. Necessary corrections will be introduced as and when new versions of the document are generated.

## Introduction

This document explains step by step how to integrate an IP Touch Panel in a KNX installation. In particular, it explains how to connect one or more IP Touch Panels to an ABB IP Router (IPR/S 3.1.1) and IP Router Secure (IPR/S 3.5.1).

Note: The configuration (except for the multicast function) is also applicable for the IP Interface (IPS/S 3.1.1) and IP Interface Secure (IPS/S 3.5.1).

# **Objectives of the document**

- KNX commissioning, IP Touch Panel and IPR/S 3.1.1
- KNX commissioning, <u>multiple</u> IP Touch Panels with <u>one</u> IPR/S 3.1.1
- KNX commissioning, IP Touch Panel and IPR/S 3.5.1 () Secure Router
- KNX commissioning, <u>multiple</u> IP Touch Panels with <u>one</u> IPR/S 3.5.1 💙 Secure Router

### Content

### **Basic information**

The prerequisite for KNX commissioning is an existing network connection on the panel. The KNX IP Router or IP Interface and IP Touch Panel must be on the same network.

To communicate with a KNX IP Router, IP Touch Panels need a point-to-point tunneling connection or multicast. To use **multiple** IP Touch Panels with **one** IP Router, you need a master/slave configuration. The steps below explain how to set this up.

Please note that in order to connect to **KNX**, the LAN/WLAN device variants <u>must</u> be connected to the WLAN interface on the existing network.

This applies to:

**IP Touch 7** LAN/WLAN → H8236-4B-03, H8236-4W-03

**IP Touch 10** LAN/WLAN → H8237-4B-03, H8237-4W-03

### KNX commissioning, IP Touch Panel and IPR/S 3.1.1

First, re-check that the panel is connected to the network, by looking at the LAN or WLAN icon in the toolbar at the bottom of the screen.



Fig. 1 Panel toolbar

If there is no connection, check the panel's network settings.

© ABB
No liability for printing errors.
This version is from the 24 November 2021

IP Touch Panel

9AKK108466A2088 A

2/9

Next, to establish a connection to an IPR/S 3.1.1, you need to specify the panel as a master device. To do this on the panel, go to, the "System" page  $\rightarrow$  "Engineering settings" (default password "345678")  $\rightarrow$  "Local settings", "Mode select" and select Master mode.

★ Engineering settings						
Engineering settings						
Local settings						
Outdoor station settings	Physical address	<b>*</b>				
IP actuator settings						
Smart home settings	Master mode	<u> </u>				
Password management						
	001	0101				
	Device no					
Sa 01/12/18 06:20 🗇 🖳 🔂		A 🌡 🕈				

Fig. 2 Master mode selection

Next, go to "Smart home settings" and select "KNX" mode.

Engineering setting	ngs		
Engineering settings			
Local settings	Smart home mode		
Outdoor station settings	KNX settings 🗸		
IP actuator settings			
Smart home settings	Read SD card		
Password management	KNX Interface settings		
	Tunneling Password		
		a	

Fig. 3 KNX selection

Now enter the IP address of the IPR/S 3.1.1 or the multicast address. The ABB i-bus® tool (link) can be useful for determining/verifying the IP address of the IPR/S 3.1.1.

Engineering setting	js			
Engineering settings				
Local settings	Tunneling Password			
Outdoor station settings Authentication Code				
IP actuator settings				
Smart home settings				
Password management	192 . 168 . 1 . 12			
		ОК		
		E		

Fig. 4 Entering the IP address

Save your input/changes by pressing "OK" at the bottom of the screen.

The KNX connection is now established.

© ABB	Title:	IP Touch Panel
No liability for printing errors.	Doc. no.:	9AKK108466A2088
This version is from the 24 November 2021	Revision:	A
	Page:	3/9

## KNX commissioning, multiple IP Touch Panels with one IPR/S 3.1.1

In KNX configurations with multiple IP Touch Panels, it is essential to specify a master device. All the other panels must be set as slaves. For clarification, see the communication path in the diagram below.

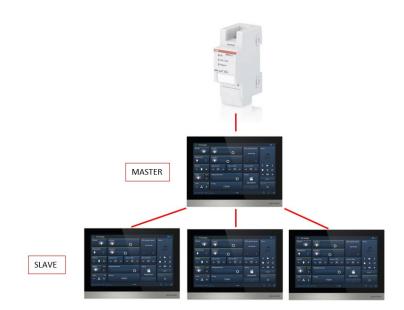


Fig. 5 Master/Slave topology

To specify and set the master device, follow the steps in <u>KNX commissioning, IP Touch Panel and</u> <u>IPR/S 3.1.1</u>. The settings for the master device are now complete.

## Slave settings

For the slave device as for the master, first re-check that the panel is connected to the network. by looking at the LAN or WLAN icon in the toolbar at the bottom of the screen.



Fig. 6 Panel toolbar

If there is no connection, check the panel's network settings.

© ABB	Title:	IP Touch Panel
No liability for printing errors.	Doc. no.:	9AKK108466A2088
This version is from the 24 November 2021	Revision:	Α
	Page:	4/9

To specify a slave device on the panel, go to, the "System" page  $\rightarrow$  "Engineering settings" (default password "345678")  $\rightarrow$  "Local settings", "Mode select" and select Subsidiary mode.

Engineering setting	gs			
Engineering settings				
Local settings				
Outdoor station settings	Physical address	~		
IP actuator settings				
Smart home settings	Subsidiary mode	~		
Password management				
	Device no			
			A	

Fig. 7 Subsidiary (Slave) mode selection

It is also important to give each slave device an individual device number. Slave device  $1 \rightarrow$  device no. 2, slave device  $2 \rightarrow$  device no. 3, etc.

Engineering setting	gs	
Engineering settings		
Local settings		
Smart home settings	Device no.	
Password management	02	
	WIFI 🗸	
	Default home page	
		A 🖁 🌢

Fig. 8 Specifying the device number

To complete the settings, go to "Smart home settings" and make sure that the IP address field is **empty**.



Fig. 9 Setting the IP address on the panel

Save your input/changes by pressing "OK" at the bottom of the screen.

The slave panel KNX connection is now established.

© ABB	Title:	IP Touch Panel
No liability for printing errors.	Doc. no.:	9AKK108466A2088
This version is from the 24 November 2021	Revision:	A
	Page:	5/9

# KNX commissioning, IP Touch Panel and IPR/S 3.5.1 🛡 Secure Router

The prerequisite for commissioning is a fully set up IP Router Secure IPR/S 3.5.1. For a brief description of how to do this, see our Engineering Guide Database.

The steps required to establish communication between the IP Touch Panel and an IPR/S 3.5.1 Secure Router are virtually the same as for an "unsecured" connection to the IPR/S 3.1.1.

- Check that the panel is configured on the network.
- Specify the panel as the master device.
- Select Smart Home mode  $\rightarrow$  "KNX"

For details of these steps, see  $\rightarrow$  KNX commissioning, IP Touch Panel and IPR/S 3.1.1.

The difference in this setup is in the "System"  $\rightarrow$  "Engineering settings" (default password "345678")  $\rightarrow$  "Smart home settings". Here, select the "KNXnet/IP secure" checkbox.

Engineering settings		
ocal settings	KNXnet/IP secure	
Smart home settings		
assword management	*****	
	Authentication Code	
	*****	
	KNX Multicast/IP address	
	192 . 168 . 1 . 12	

Fig. 10 Setting the KNXnet/IP secure on the panel

© ABB	Title:	IP Touch Panel
No liability for printing errors.	Doc. no.:	9AKK108466A2088
This version is from the 24 November 2021	Revision:	A
	Page:	6/9

If you are using a secure tunneling connection, enter the relevant password in the panel.

The passwords for the IPR/S 3.5.1 tunneling connections are specified in ETS. The IPR/S 3.5.1 authentication code is also specified in ETS and must be entered in the panel accordingly (see diagram below).

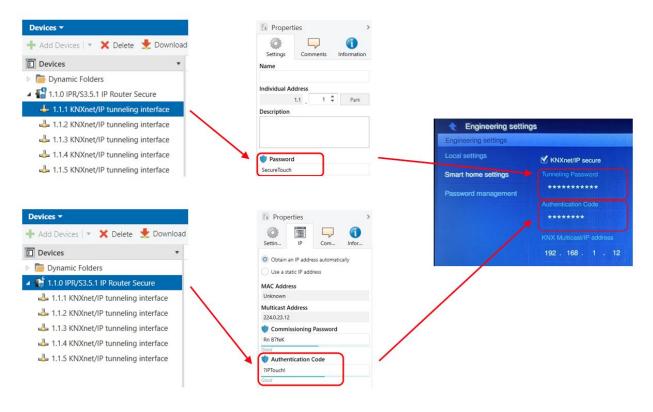


Fig. 11 Assigning the password and authentication code in ETS

To complete the configuration, enter the IP address of the IPR/S 3.5.1 or the multicast address in the field below, and save the configuration by pressing "OK."



Fig. 12 Entering the IP address

The secure connection is now established.

© ABB	Title:	IP Touch Panel
No liability for printing errors.	Doc. no.:	9AKK108466A2088
This version is from the 24 November 2021	Revision:	Α
	Page:	7/9

# KNX commissioning, multiple IP Touch Panels with one IPR/S 3.5.1 🛡 Secure Router

The prerequisite for commissioning is a fully set up IP Router Secure IPR/S 3.5.1. For a brief description of how to do this, see our Engineering Guide Database.

The steps required to establish communication between the IP Touch Panel and an IPR/S 3.5.1 Secure Router are virtually the same as for an "unsecured" connection to the IPR/S 3.1.1.

- Check that the panel is configured on the network.
- Specify the first panel as the master device and all other panels as slaves
- Select Smart Home mode  $\rightarrow$  "KNX"

### For details of these steps, see $\rightarrow$ KNX commissioning, IP Touch Panel and IPR/S 3.1.1.

The difference in this setup is in the "System"  $\rightarrow$  "Engineering settings" (default password "345678")  $\rightarrow$  "Smart home settings." Here, select the "**KNXnet/IP secure**" **checkbox**.

Engineering settings			
Local settings	KNXnet/IP secure		
Smart home settings			
Password management	****		
	Authentication Code		
	*****		
	KNX Multicast/IP address		
	192 . 168 . 1 . 12		

Fig. 13 Setting the KNXnet/IP secure on the panel

If you are using a secure tunneling connection, enter the relevant password in the panel.

Caution: Select a separate tunneling connection for each IP Touch Panel (the IPR/S 3.5.1 has five tunneling connections). Make sure you enter the corresponding password. (Each tunneling connection should have a unique password. See screenshot below.)

The tunneling passwords for the IPR/S 3.5.1 are specified in ETS. The IPR/S 3.5.1 authentication code is also specified in ETS and must be entered in the panel accordingly (see diagram below).

© ABB	Title:	IP Touch Panel
No liability for printing errors.	Doc. no.:	9AKK108466A2088
This version is from the 24 November 2021	Revision:	Α
	Page:	8/9

Devices 🔻	D Properties >	
🕂 Add Devices 💌 🗙 Delete 🛨 Download	Settings Comments Information	
Devices •	Name	
Dynamic Folders		
1.1.0 IPR/S3.5.1 IP Router Secure	Individual Address	
📥 1.1.1 KNXnet/IP tunneling interface	Description	
🕹 1.1.2 KNXnet/IP tunneling interface		Engineering settings
🕹 1.1.3 KNXnet/IP tunneling interface		Engineering settings
🕹 1.1.4 KNXnet/IP tunneling interface	Password	Local settings CKNXnet/IP secure
🕹 1.1.5 KNXnet/IP tunneling interface	SecureTouch	Smart home settings Tunneling Password
		******
		Password management Authentication Code
Devices -	Properties >	Authentication Code
+ Add Devices 💌 🗙 Delete 👱 Download		
	Settin IP Com Infor	KNX Multicast/IP address
Devices •	Obtain an IP address automatically	192 . 168 . 1 . 12
Dynamic Folders	Use a static IP address	
✓ ■ 1.1.0 IPR/S3.5.1 IP Router Secure	MAC Address	
👍 1.1.1 KNXnet/IP tunneling interface	Unknown	
🕹 1.1.2 KNXnet/IP tunneling interface	Multicast Address 224.0.23.12	
👍 1.1.3 KNXnet/IP tunneling interface	Commissioning Password	
👍 1.1.4 KNXnet/IP tunneling interface	Rn B7feK	
🕹 1.1.5 KNXnet/IP tunneling interface	Authentication Code	
	?IPTouch!	
	Good	

Fig. 14 Assigning the password and authentication code in ETS

Finally, enter the IP address of the IP Router Secure in each IP Touch Panel.

The secure connection to multiple IP Touch Panels is now established.

# **References to other documents**

- FAQ Home and Building Automation
- Engineering Guide Database



© ABB
No liability for printing errors.
This version is from the 24 November 2021

IP Touch Panel 9AKK108466A2088

9/9