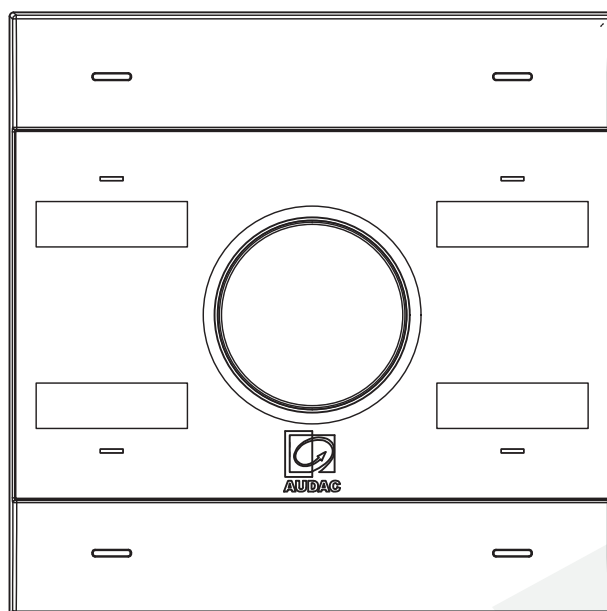


## NCP105



## **ADDITIONAL INFORMATION**

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the Audac website @ [audac.eu](http://audac.eu).



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# Introduction

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## Universal network/PoE wall panel controller

The NCP105 is a universal network wall panel controller, with 4 programmable capacitive touch buttons and a programmable rotary encoder. Each button is provided with an RGB indicator LED, while the RGB LED ring gives the user feedback on the selected settings or audio level.

The IP-based communication makes it future-proof while also being backward compatible with many existing products.

Besides the elegant design, the front panel of NCP105 is finished with high-quality fingerprint-resistant glass and a name tag window for each button that allows a custom name tag to be added behind the panel, offering a neat finish while having a clear overview of the configured functions.

The configuration of the button functions and the rotary dial is entirely flexible, with full compatibility of all AUDAC Touch functionalities.

The NCP105's design allows it to be used in many applications and with many different AUDAC or third-party AV equipment. From simultaneous multi-device support such as processors, amplifiers, sources to loudspeakers, the choice is yours.

The wall panels are compatible with standard EU-style in-wall boxes, making the wall panel the ideal solution for solid and hollow walls. Black and white color options are available to blend into any architectural design.

## READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

ALWAYS KEEP THESE INSTRUCTIONS. NEVER THROW THEM AWAY

ALWAYS HANDLE THIS UNIT WITH CARE

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

NEVER EXPOSE THIS EQUIPMENT TO RAIN, MOISTURE, ANY DRIPPING OR SPLASHING LIQUID. AND NEVER PLACE AN OBJECT FILLED WITH LIQUID ON TOP OF THIS DEVICE

NO NAKED FLAME SOURCES, SUCH AS LIGHTED CANDLES, SHOULD BE PLACED ON THE APPARATUS

DO NOT PLACE THIS UNIT IN AN ENCLOSED ENVIRONMENT SUCH AS A BOOKSHELF OR CLOSET. ENSURE THERE IS ADEQUATE VENTILATION TO COOL THE UNIT. DO NOT BLOCK THE VENTILATION OPENINGS.

DO NOT STICK ANY OBJECTS THROUGH THE VENTILATION OPENINGS.

DO NOT INSTALL THIS UNIT NEAR ANY HEAT SOURCES SUCH AS RADIATORS OR OTHER APPARATUS THAT PRODUCE HEAT

DO NOT PLACE THIS UNIT IN ENVIRONMENTS WHICH CONTAIN HIGH LEVELS OF DUST, HEAT, MOISTURE OR VIBRATION

THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS

PLACE THE UNIT ON A STABLE BASE OR MOUNT IT IN A STABLE RACK

ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER

USE THE APPARATUS ONLY IN MODERATE CLIMATES



### CAUTION - SERVICING

This product contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing (unless you are qualified to)



### EC DECLARATION OF CONFORMITY

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC) & 2014/35/EU (LVD).



### WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The WEEE marking indicates that this product should not be disposed with regular household waste at the end of its life cycle. This regulation is created to prevent any possible harm to the environment or human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose this product at your local collection point or recycling centre for electrical and electronic waste. This will make sure that it will be recycled in an environmentally friendly manner, and will help to protect the environment in which we all live.



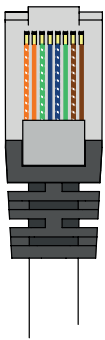
## Connections

### CONNECTION STANDARDS

The in- and output connections for AUDAC audio equipment are performed according to international wiring standards for professional audio equipment.

### RJ45 (Network, PoE)

Network communications



Pin 1	White-Orange
Pin 2	Orange
Pin 3	White-Green
Pin 4	Blue
Pin 5	White-Blue
Pin 6	Green
Pin 7	White-Brown
Pin 8	Brown

### Ethernet (POE):

Used for connecting the NCP105 in your Ethernet network with PoE (power over Ethernet). The NCP105 complies with the IEEE 802.3 af/at standard, which allows IP telephones, wireless LAN Access Points, Security network cameras, and other IP-based terminals to receive power, in parallel to data, over the existing CAT-5 Ethernet infrastructure without the need to make any modifications in it.

PoE integrates data and power on the same wires, it keeps the structured cabling safe and does not interfere with concurrent network operation. PoE delivers 48v of DC power over unshielded twisted-pair wiring for terminals consuming less than 13 watts of power.

The maximum output power is depending on the power delivered by the network infrastructure. In case the network infrastructure is not capable of delivering sufficient power, use a PoE injector to the NCP 105.

While CAT5E network cable infrastructure is sufficient for handling the required bandwidth, it is recommended to upgrade the network cabling to CAT6A or better cabling to achieve the best possible thermal and power efficiency throughout the system when drawing higher powers over PoE.

## Network settings

### STANDARD NETWORK SETTINGS

DHCP: **ON**

IP Address: Depending on DHCP

Subnet Mask: 255.255.255.0 (Depending on DHCP)

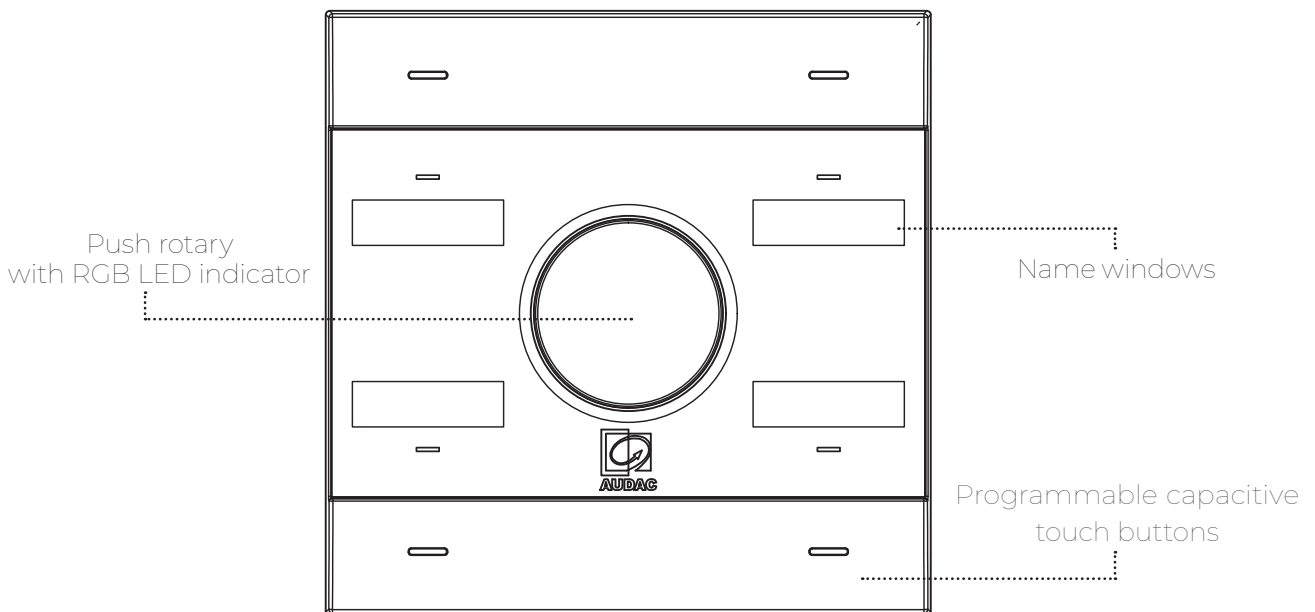
Gateway: 192.168.0.253 (Depending on DHCP)

DNS 1: 8.8.4.4 (Depending on DHCP)

DNS 2: 8.8.8.8 (Depending on DHCP)

## Overview front panel

The front panel of the NWP series is finished with high-quality fingerprint-resistant glass and a name window for each adjustable button. It features 4 adjustable buttons and a push rotary with an RGB LED ring indicator that can be setup for any command quickly, without any coding.



## Front panel description

### Programmable Capacitive Touch Buttons & Name Windows

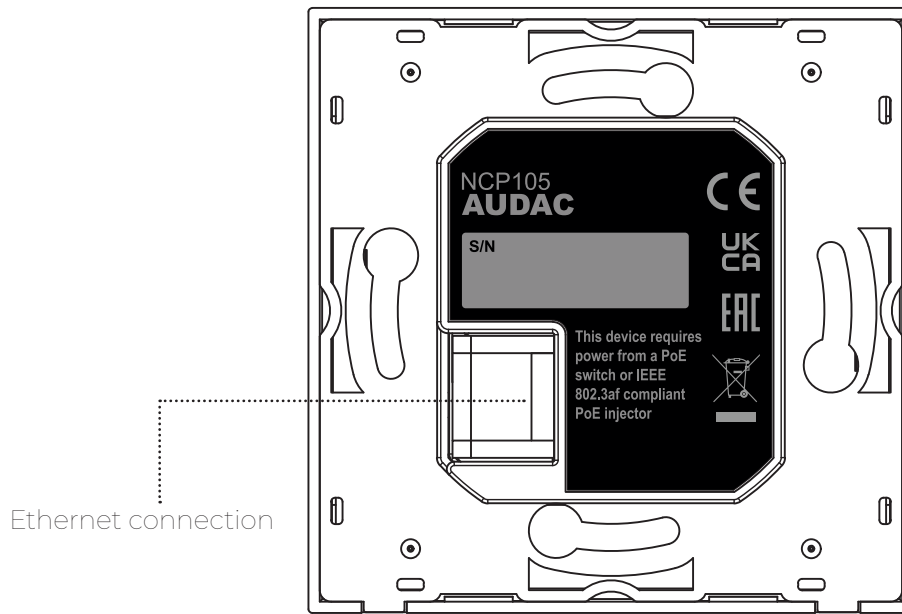
Any available functionality or up to 10 selectable devices can be assigned to each of the buttons. The name tag can be placed behind the name window to indicate the function of the button, the zone it is connected to or the device it can choose.

### Push Rotary with RGB LED

The push rotary can have multiple functions and the status is indicated by the RGB LED. Any selected function through the 4 programmable buttons can be adjusted using the rotary dial. The LED ring can have multiple indication functions depending on the selected button.

## Overview rear panel

The rear of the NCP105 contains an ethernet connection port which is used to connect the wall panel to the RJ45 connector. As the NCP105 is a universal network wall control panel with PoE, all data flow and powering are done through this single port.



## Rear panel description

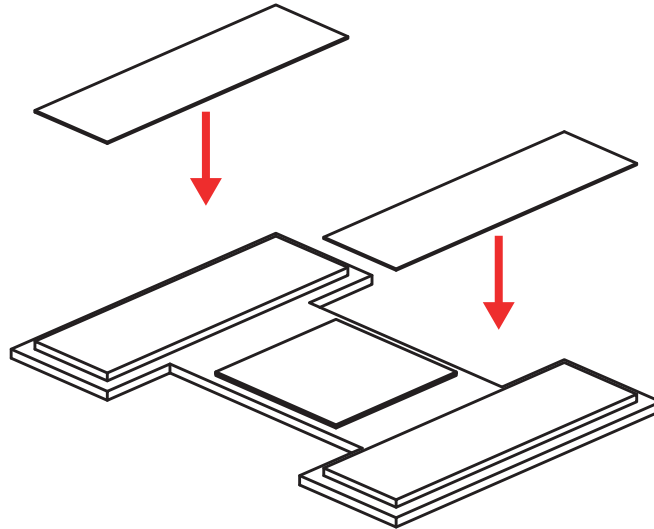
### Ethernet connection

The Ethernet connection is the essential connection for the NCP105. Control signals and power (PoE) are distributed over the Ethernet network. This input shall be connected to your network infrastructure.

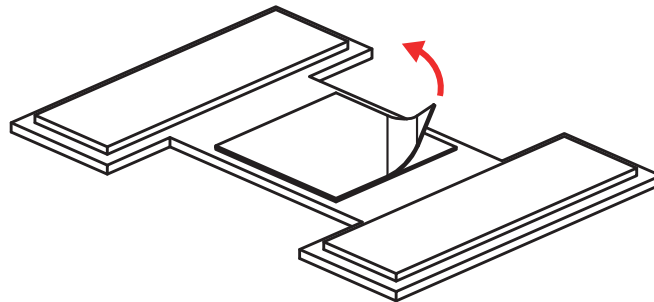
## Placing the name tag

Custom name tags can be placed after removing the front cover of the NCP105.

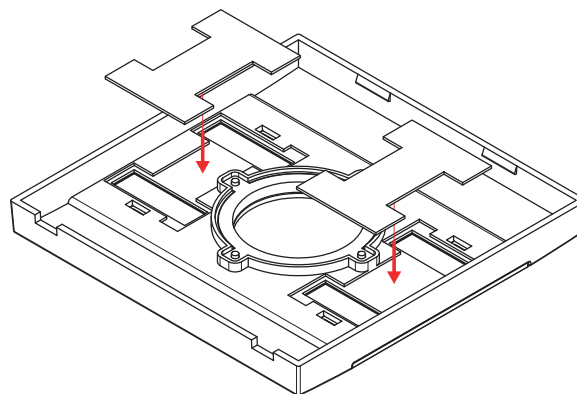
### Step 1:



### Step 2:



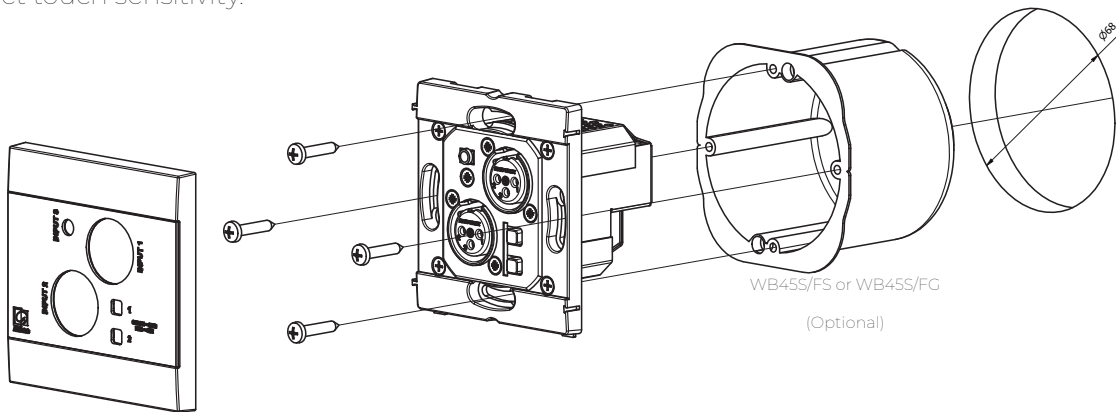
### Step 3:



## Installation

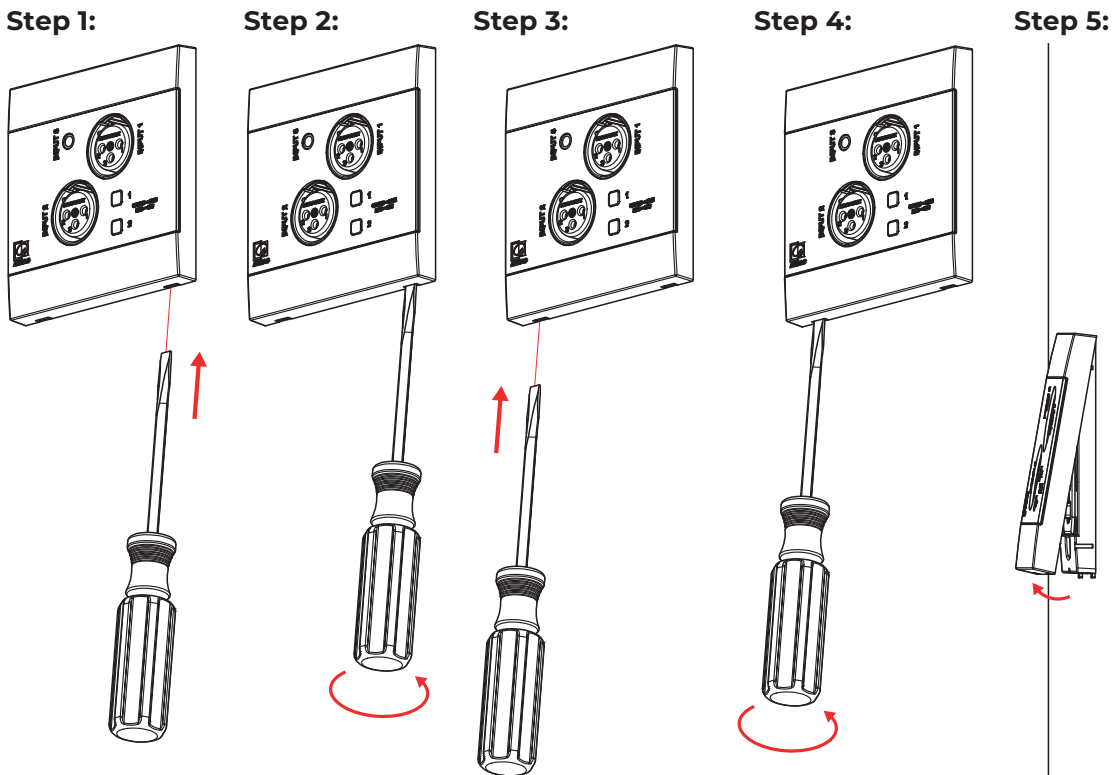
This chapter guides you through the setup process for a basic setup where an NCP105 networked wall panel should be connected to a system with a wired network. The wall panels are compatible with standard EU-style in-wall boxes, making the wall panel the ideal solution for solid and hollow walls. Provide a twisted pair cable (CAT5E or better) from the network switch to the wall panel. The maximum safest distance between the PoE switch and the wall panel should be 100 meters.

For optimal capacitive touch performance, avoid installing the NCP105 directly against conductive materials or surfaces. Metal objects, wiring, or other conductive materials in close proximity to the rear side of the device may affect touch sensitivity.



## Removing the front cover

The front panel of the NCP105 can be removed by using a flat head screwdriver in 5 steps.



# Chapter 3

## Quick start guide

This chapter guides you through the setup process for an NCP105 universal network/PoE wall panel controller connected to the network. The control of the system is done through the NCP105 or Audac Touch™.

## Connecting the NCP105

Capacitive touch buttons calibrate themselves at the boot. To get an accurate capacitive touch button sensitivity, boot the device while the top cover is mounted to it. To boot your NCP105 universal network/PoE wall panel controller, first connect the Cat5E (or better) network cable to your wall panel controller, install it, and mount the top cover. Then connect the other end of that network cable to a PoE-supported Ethernet network switch. If the existing Ethernet network switch is not PoE-compatible, an additional PoE injector should be installed in between. The boot and operation of the NCP105 wall panel controller can be monitored via indicator LEDs on the front panel of the unit, which indicate the selected button and status.

For safety precautions, please make all your connections between the wall panel controller and PoE network switch while the switch is powered off.

## RGB LED Ring Indicator

The RGB LED ring can have multiple feedback indication functions depending on the status of NCP105 universal network/PoE wall panel controller.

If the RGB LED ring spins slow in white color, the device is running the start-up procedure.

If the RGB LED ring spins fast in white color, the device is getting an IP address.

If the RGB LED ring flashes in orange color, the device is giving an error because of a missing device on the network which is configured on the NCP105 universal network/PoE wall panel controller. For example, if the device is configured to control a LUNA-F but that device is no longer on that network with its specific IP address, the RGB LED ring flashes in orange color.

## Factory Reset

Press the push rotary for 30 seconds. Once the RGB LED ring indicator start blinking, remove the network cable from the device within 1 minute. Replug the network cable, the device will be in factory defaults after repowering.

## Calibrating the NCP105

We recommend calibrating the NCP105 after installing the front panel.

To start the calibration process, press and hold all four buttons simultaneously. All four buttons will begin flashing white. Once the calibration is complete, the buttons will turn off. If the NCP105 has been programmed, the buttons will then light up according to the programmed configuration.

The button sensitivity can be adjusted in the device settings using Audac Touch™.

## Network Settings

When no DHCP server is available on the network, the NCP105 will automatically use a link-local IP address. In this situation, the NCP105 is not discoverable in the Audac Touch™ platform by default.

To access the device, the installer must temporarily configure the PC's ethernet adapter to an IP address within the same link-local range. Once connected, a static IP address can be assigned to the NCP using the Audac Touch™ platform. After the configuration is completed, the PC's network settings can be restored to their original configuration.

This functionality is supported from firmware version 1.1.0 and later for the NCP105. Devices running older firmware versions require a DHCP server to operate correctly.

If a DHCP server is available on the network, the NCP will be automatically discoverable in the Audac Touch™ platform.

## Configuring the NCP105

NCP105 universal network/PoE wall panel controller can be configured using the Audac Touch™ platform, which can be freely downloaded and operated from various platforms. This is very intuitive to be operated and automatically discovers all available compatible products in your network. With available functions, many different AUDAC or third-party AV equipment can be controlled with ease.

# Technical specifications

Control		4 programmable capacitive touch buttons (transparent window name tag)
		Programmable rotary encoder
Indicators		RGB LEDs (each button)
		360° RGB LED light bar (32 LED)
Configurable settings	Fully configurable button & rotary functions	Routing
		Volume up / down
		Mute
		Toggle relay
Configuration		Audac Touch™
Power Supply		PoE powered (IEEE 802.3af/at)
Power consumption		1.1W
Connectors		RJ45 (network + PoE)
Dimensions	(W x H)	80 x 80 mm
Colours		Black (RAL9005)
		White (RAL9003)
Front finish		Elegant ABS front panel with glass
Accessories	Surface mount Installation boxes	WB200 - Surface mount wall box for WP & DWP series
	Flush mount Installation boxes	Flush mount box for 45 x 45 mm wall panel - Solid wall - WB45S/FS
		Flush mount box for 45 x 45 mm wall panel - Hollow wall - WB45S/FC
Construction		ABS

