

# PROSPERO



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# 1 Safety information

1. Read and keep these safety instructions. Follow all instructions and heed all warnings.
2. Download the latest version of the applicable installation manual from [www.boschsecurity.com](http://www.boschsecurity.com) for installation instructions.



## Information

Refer to the Installation Manual for instructions.

3. Follow all installation instructions and observe the following alert signs:



**Notice!** Containing additional information. Usually, not observing a notice does not result in damage to the equipment or personal injuries.



**Caution!** The equipment or the property can be damaged, or persons can be injured if the alert is not observed.






**Warning!** Risk of electric shock.

4. System installation and servicing by qualified personnel only, in accordance with applicable local codes. No user-serviceable parts inside.
5. For rack-mounting of system devices, make sure that the equipment rack is of suitable quality to support the weight of the devices. Use caution when moving a rack to avoid injury from tip over.
6. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.



**Warning!** To reduce the risk of fire and electric shock, do not expose this apparatus to rain or moisture.

7. Mains powered equipment shall be connected to a mains power outlet socket with a protective earthing connection. An external, readily operable, mains plug or all-pole mains switch shall be installed.
8. Only replace the mains fuse of an apparatus with a fuse of the same type.
9. The protective ground connection of an apparatus shall be connected to protective ground before the apparatus is connected to a power supply.
10. Amplifier outputs marked with  may carry audio output voltages up to 120 V<sub>RMS</sub>. Touching uninsulated terminals or wiring may result in an unpleasant sensation. Amplifier outputs marked with  or  may carry audio output voltages above 120 V<sub>RMS</sub>. It requires a skilled person to strip and connect the loudspeaker wires in such a way that the naked conductors are inaccessible.
11. The system may receive power from multiple mains power outlet sockets and backup batteries.



**Warning!** To prevent a shock hazard disconnect all power sources prior to system installation.

12. Devices for vertical (wall) mounting supporting a user interface for operation shall only be mounted below 2 m height.
13. Devices installed above 2 m height may cause injury when falling down. Preventive measures must be taken.
14. To prevent hearing damage do not listen at high volume levels for long periods.

## 2 About this manual

### 2.1 Intended audience

This installation manual is intended for everyone who is authorized to install Bosch PROSPERO public address system and related products.

### 2.2 How to use this manual

If you are new to the Bosch PROSPERO Public Address System or are starting to configure a new Bosch PROSPERO Public Address System, it is recommended that you read this manual from start to finish.

### 2.3 Related documentation

The Bosch PROSPERO technical documentation is set up in a modular way addressing different stakeholders.

	Installer	System integrator	Operator
Product User Manuals: basic overview and description of each hardware product.	X	X	
System Installation Manual: system overview, installation and wiring instructions for all hardware products.	X	X	
Software Configuration Manual: instructions for installation, configuration, diagnostics and operation of system software.	X	X	X



**Notice!**

Retain all documentation supplied with the products for future reference. Visit [www.boschsecurity.com](http://www.boschsecurity.com) to consult all the documentation.

### 2.4 Copyright notice

Unless otherwise indicated, this publication is the copyright of Bosch Security Systems B.V. All rights are reserved.

## 2.5 Trademarks

Throughout this document, trademark names may have been used. Rather than put a trademark symbol in every occurrence of a trademark name, Bosch Security Systems states that the names are used only in an editorial fashion and to the benefit of the trademark owner with no intention of infringement of the trademark.

## 2.6 Notice of liability

While every effort has been taken to ensure the accuracy of this document, neither Bosch Security Systems nor any of its official representatives shall have any liability to any person or entity with respect to any liability, loss or damage caused or alleged to be caused directly or indirectly by the information contained in this document. Bosch Security Systems reserves the right to make changes to features and specifications at any time without prior notification in the interest of ongoing product development and improvement.

## 2.7 Document history

Release date	Document version	Reason
2024-10	V1.00	First release



### 3 System introduction

The PROSPERO system is a public address system based on TCP/IP technology released by Bosch. All components of the system can be directly connected to a standard Ethernet network and transmit audio and control signals directly through the network. PROSPERO system has excellent scalability and flexibility, call stations and interface modules and other components support PoE power supply, which is suitable for both centralized system layout and distributed system topology requirements. PROSPERO system also has excellent compatibility and can be used with various types of amplifiers and loudspeakers in Bosch's public address product line, so as to build a broadcasting and background music solution that meets the needs of various applications. The PROSPERO system is not only cost-effective with excellent sound quality, but also easy to install, integrate and use. In addition to conventional public address applications. In addition, the design is optimized for applications and scenarios in the education industry, including IP active speakers that can meet the needs of applications in the classroom. For detailed information on product and system descriptions/software configurations, refer to the Bosch PROSPERO Public Address System Product Data Sheet and Software Configuration Manual.

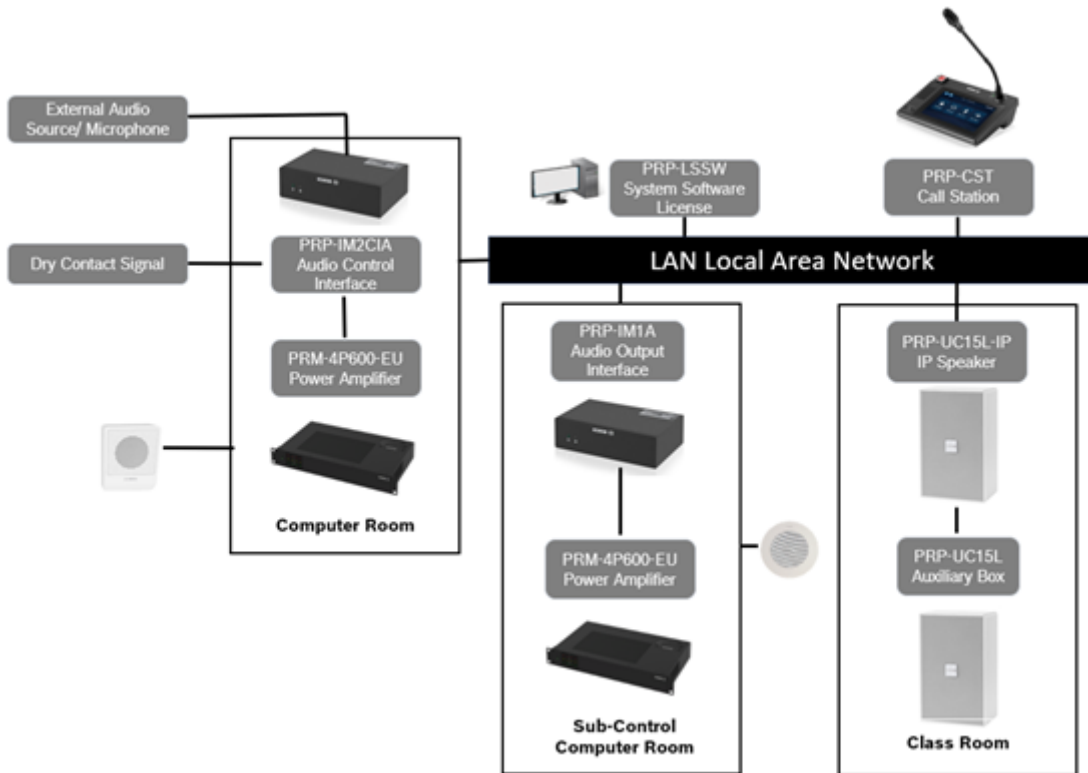


Figure 3.1: Example of a typical application setup of the system

## 4 Product overview

The PROSPERO series contains the following products:

Order number	Product view	Product name
PRP-CST		Call station
PRP-LSSW		System software license
PRP-IM1A		Interface module, 1 audio output
PRP-IM2C1A		Interface module, 2x2 control, 1x1 audio
PRP-UC15L		Cabinet loudspeaker, 15W
PRP-UC15L-IP		Cabinet loudspeaker, 15W, IP

## 5 Call station (PRP-CST)

### 5.1 Introduction

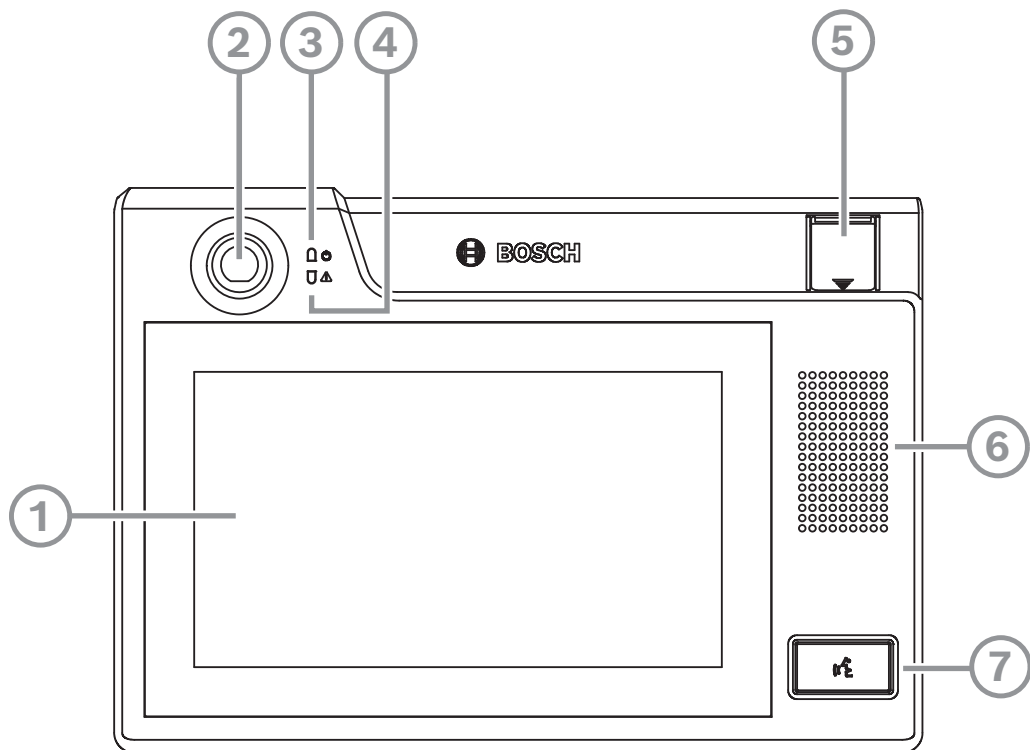
The PRP-CST is a desktop call station with a touch screen and gooseneck microphone that can be accessed via a standard IP network to the PROSPERO public address system for manual and pre-recorded announcements.





The call station supports PoE power supply and can be connected to a generic Ethernet switch using a single Category 5 network cable.

The front side provides a 7" full color touch screen with PIN code login verification for access control, a PTT button and an emergency broadcast button with anti-touch cover for daily broadcast operation. The bottom provides a 1 channel audio input port for connecting to a local audio source. A built-in monitor speaker allows for zone monitoring using the touch screen.

### 5.2 Equipment overview

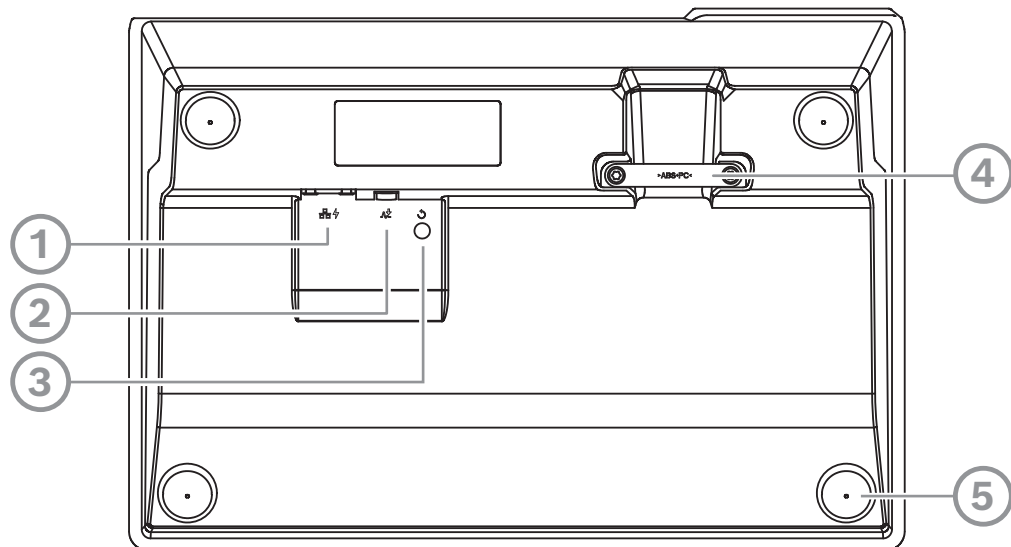
#### 5.2.1 Front view



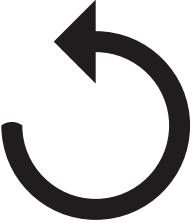


Nr.	Icon	Indicator and control	Description
1		LCD screen	7-inch full-color capacitive touch screen
2		Microphone	Gooseneck microphone with flexible angle adjustment
3		Power indicator	Green: On
4		Fault warning indicator	Blinking yellow: unauthorized Solid yellow: device failure
5		Emergency broadcast button	For initiating emergency broadcasts
6		Built-in speaker	For real-time zone listening
7		PTT call button	For initiating manual paging broadcasts

## 5.2.2

### Rear view



Nr.	Icon	Indicator and control	Description
1		Network interface	Connecting to a PoE network switch
2		Analog audio input connector	Local line level audio input for connection to background music source devices
3		Device reset button	Restore factory default settings
4		Strain relief brackets	Secure the alignment of the network cable so that it fits on the bottom of the call station
5		Footrest	Non-slip foot mats

## 5.3 Mounting

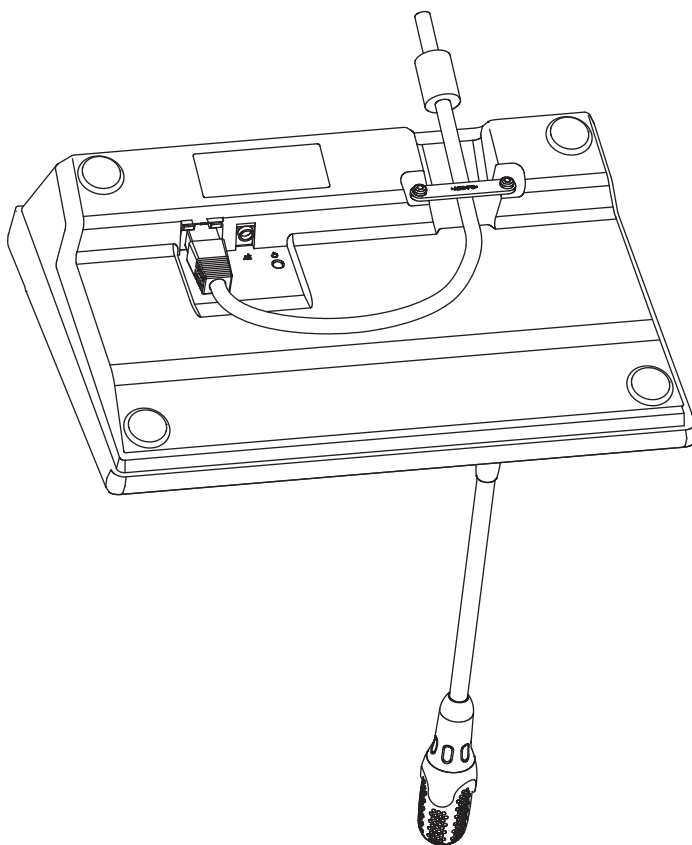
### 5.3.1 Delivery conditions

The call station is shipped with the following default property settings:

Parameters	Setup/Description
IP address	192.168.1.105
Subnet mask	255.255.255.0
Server IP	192.168.1.6
Name	PRP-CST

### 5.3.2 Installation

Refer to the diagram below to connect the call station's network cable and secure the cable with the provided strain relief bracket and two screws.

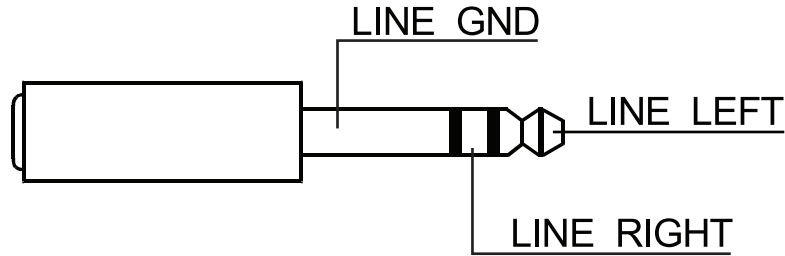


## 5.4 Wire connection

### Analog Audio Input Connector

Analog audio input jacks for connecting external audio devices (e.g., background music sources, wireless microphone receivers, etc.).

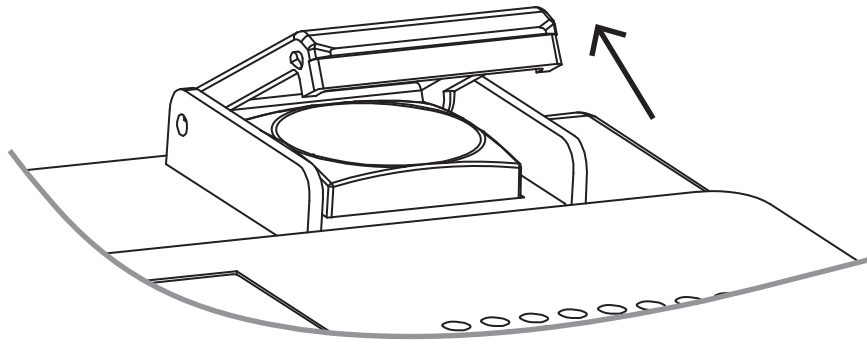
The following figure shows the interface definition of the stereo plug (3.5 mm, "small three-prong plug") used to connect to the analog audio input connector.



## 5.5 Technical parameter

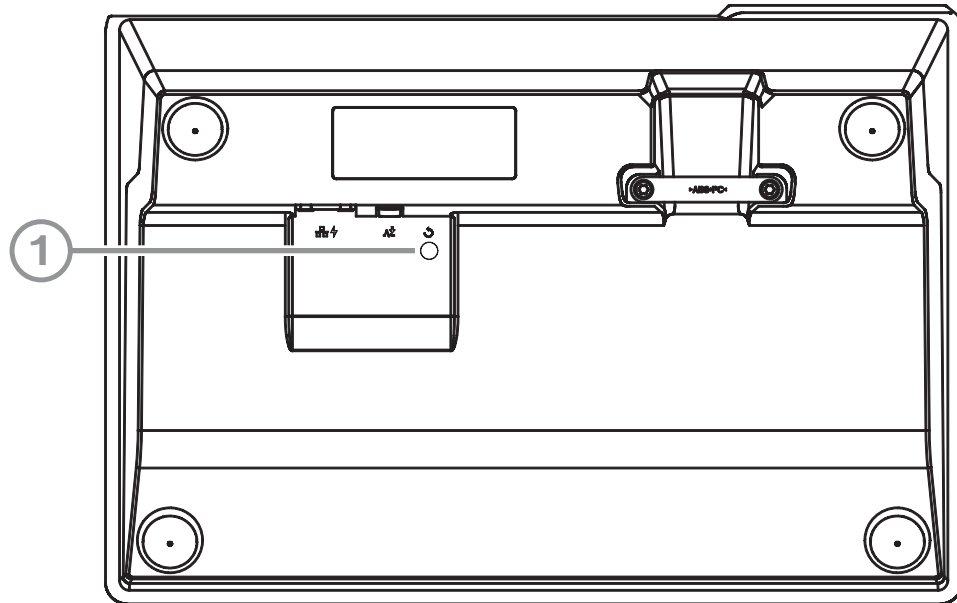
### 5.5.1 Emergency broadcast button

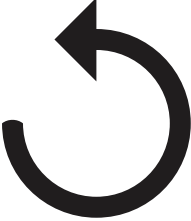
The Emergency announcement button, in the upper right corner of the call station, is a red physical button with a clear shroud cover. The transparent cover prevents inadvertent activation of the button and needs to be opened before use, ensuring maximum operational reliability.



### 5.5.2 Device reset

Press and hold the device reset button for 5 seconds, then release the device to reboot and return to the factory default configuration.



Nr.	Icon	Indicator and control	Description
1		Device reset button	Restore factory default settings

## 5.6 Technical data

### Electrical

PoE power supply	
Rated input voltage (VDC)	48 V
PoE input	PoE IEEE 802.3af Class 3
Power consumption	<7 W

Network interface	
Ethernet type	100 BASE-TX
Ethernet protocol	TCP/IP, UDP, RTP, TFTP, HTTP, HLS
Audio encoding	MP3, PCM
Interface	1x RJ45



<b>Microphone</b>	
Nominal acoustic input level (dB SPL)	80 dB SPL – 100 dB SPL
Maximum acoustic input level (dB SPL)	120 dB SPL
Signal-to-noise ratio (SNR)	>70 dBA
Polar pattern	Unidirectional
Frequency response (+3/-6 dB) (Hz)	100 Hz – 14 kHz

<b>Display</b>	
Display size (in)	7 in
Touchscreen	Capacitive
Color depth	24-bit
Display resolution (pixels)	800 x 480 px
Brightness	300 cd/m <sup>2</sup>

<b>Monitor loudspeaker</b>	
Rated input level 500 Hz – 3 kHz (@1 m)	75 dB SPL +/- 6 dB
Frequency range (-10 dB) (Hz)	500 Hz – 3 kHz

<b>Analog audio input</b>	
Frequency response	100 Hz – 18 kHz
Sampling rate	44.1 kHz
Type	1x Line level input
Connector	1x 3.5 mm socket
Maximum input level	0 dBu
Input impedance	>22 kΩ

### **Mechanical**

Material	PC, ABS
Dimensions (H x W x D)	370 mm x 238 mm x 158 mm
Weight	740 g
Color (RAL)	RAL 9017 Traffic black

**Environmental**

Operating temperature (°C)	-5°C – 45°C
Storage and transportation temperature (°C)	-40°C – 70 C
Operating relative humidity, non-condensing (%%)	<95%

## 6 Interface module, 1 audio output (PRP-IM1A)

### 6.1 Introduction

PRP-IM1A is an audio output IP module, which can be connected to PROSPERO public address system through standard IP network for audio signal transmission. Transmission. Supports PoE power supply, just use a super Category 5 cable to connect to a general-purpose Ethernet switch. The back panel provides a 1 channel audio output interface for connecting amplifier. It can be fixed on the cabinet tray through the screw holes on the shell, and 3 IP modules can be installed side by side at 1U height.

Other attributes:

- Access to PROSPERO public address system via IP network
- 1 line level audio output connector for connection to an amplifier
- Power supply status and fault status indicators
- Fixed to the cabinet tray by screw holes position
- Compact form factor, 1U rack height for 3 modules side by side

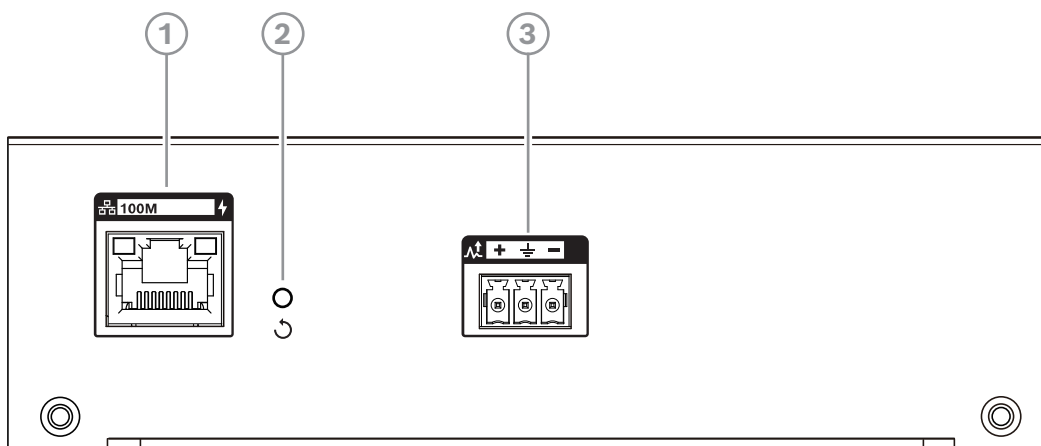
### 6.2 Equipment overview

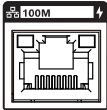
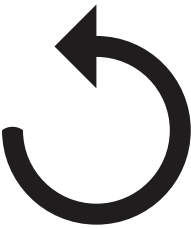

#### 6.2.1 Front view



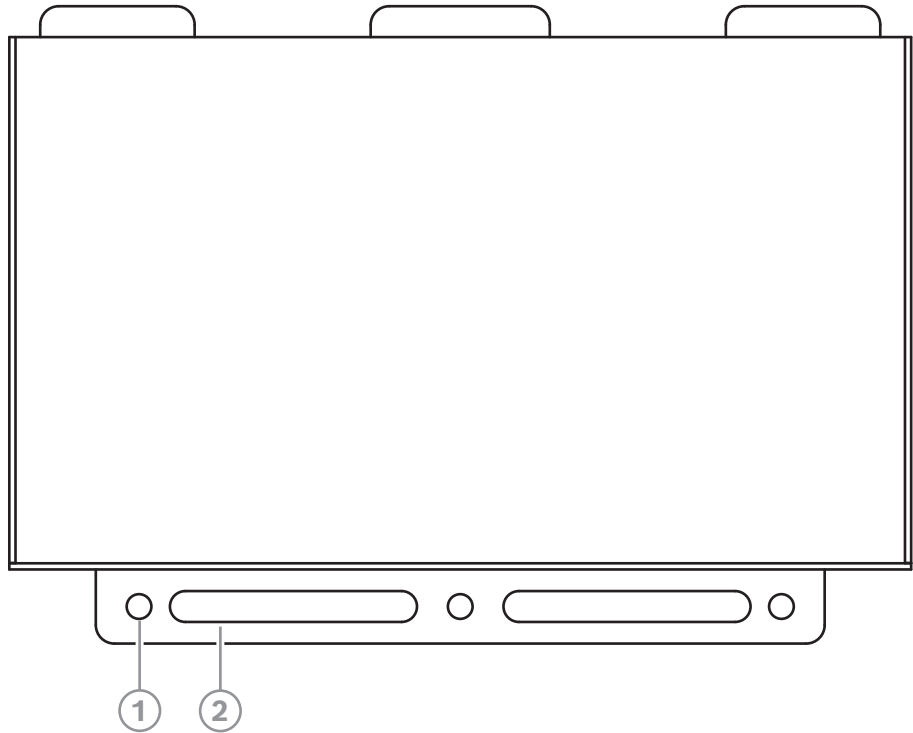
Nr.	Icon	Indicator and control	Description
1		Fault warning indicator	Blinking yellow: unauthorized Solid yellow: device failure
2		Power indicator	Green: On

### 6.2.2 Rear view



Nr.	Icon	Indicator and control	Description
1		Network interface	Connecting to a PoE network switch
2		Device reset button	Restore factory default settings
3		Analog audio output connector	Balanced line level audio output

### 6.2.3 Top view



Nr.	Component	Description (default configuration)
1, 2	Set screw hole	Rack tray mounting screw holes

## 6.3 Mounting

### 6.3.1 Delivery conditions

The module is shipped from the factory with the following default property settings:

Parameters	Setup/Description
IP address	192.168.1.105
Subnet mask	255.255.255.0
Server IP	192.168.1.6
Name	PRP-IM1A

### 6.3.2 Installation

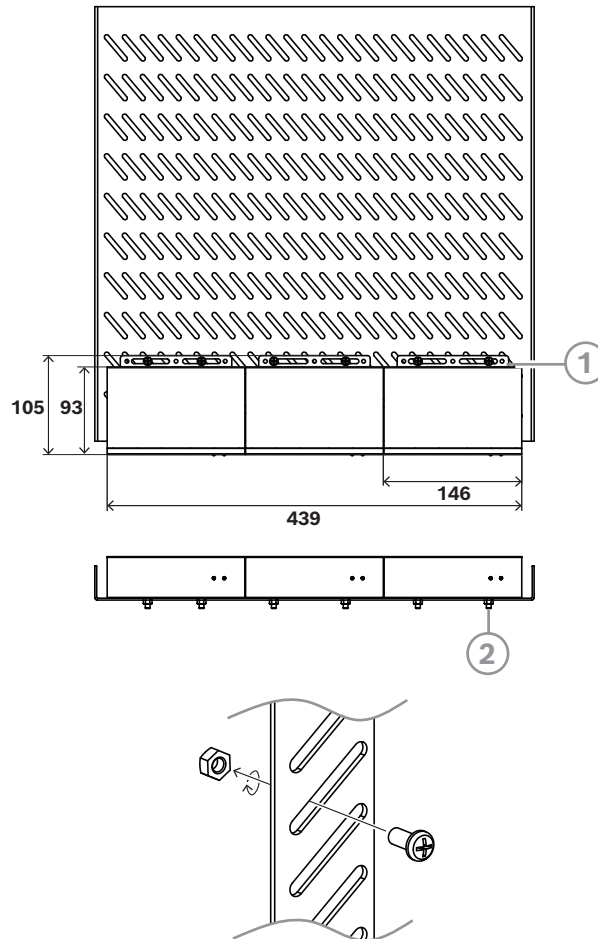
Modules can be installed in combination, with three modules horizontally combining to be exactly the width of a standard 1U rack unit.

1. Place the module on the cabinet tray and use M4/ M5 screws and nuts to secure the module to the cabinet tray through the mounting holes on the cabinet tray and the mounting holes on the bottom of the module.
2. Secure the tray to the rack.
3. Connect the network and audio cables to the module.



**Notice!**

The cabinet trays need to be configured by the installer.



**Figure 6.1:** Fixing the module on the cabinet tray

Nr.	Description
1	Screw
2	Nut (female component of nut and bolt)

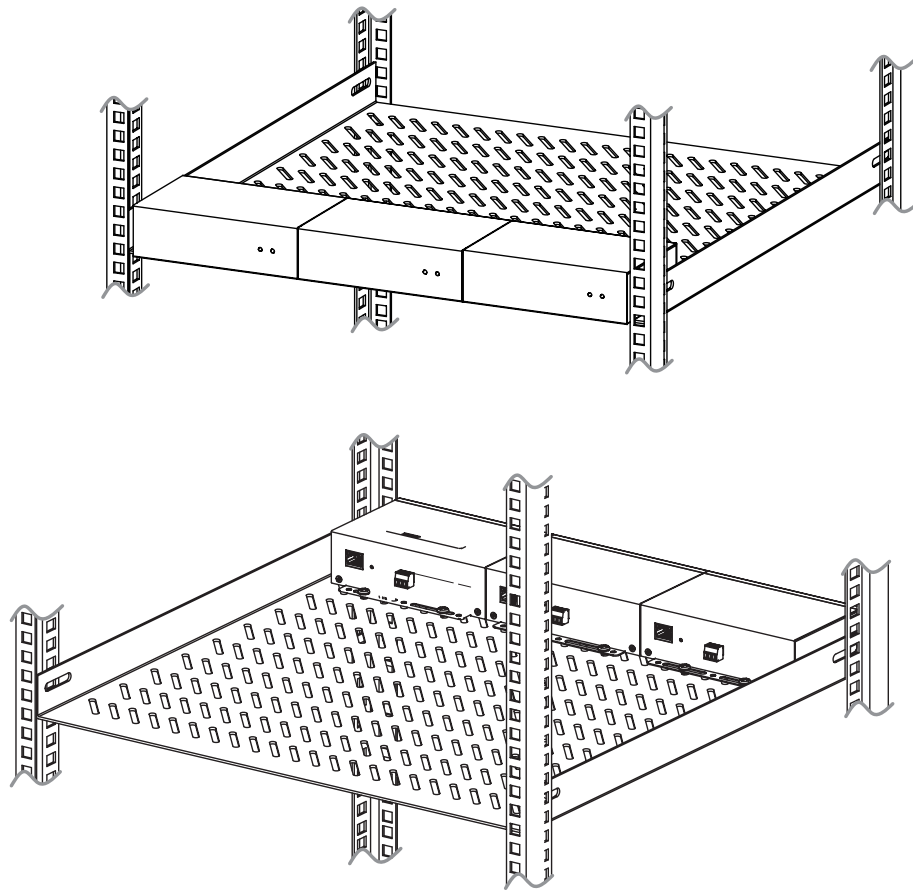


Figure 6.2: Fixing a tray in a rack

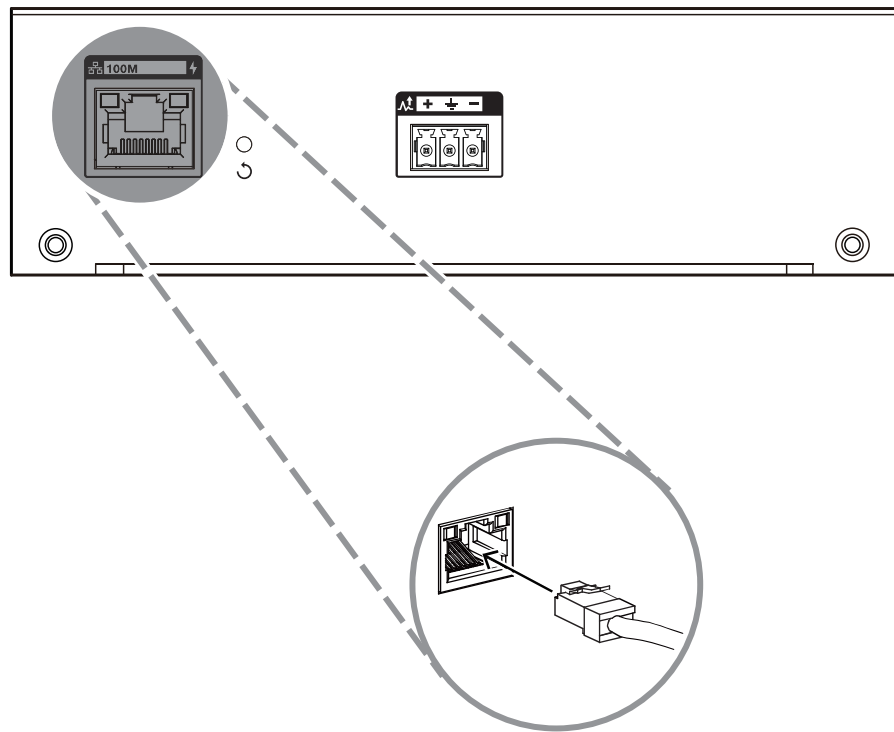
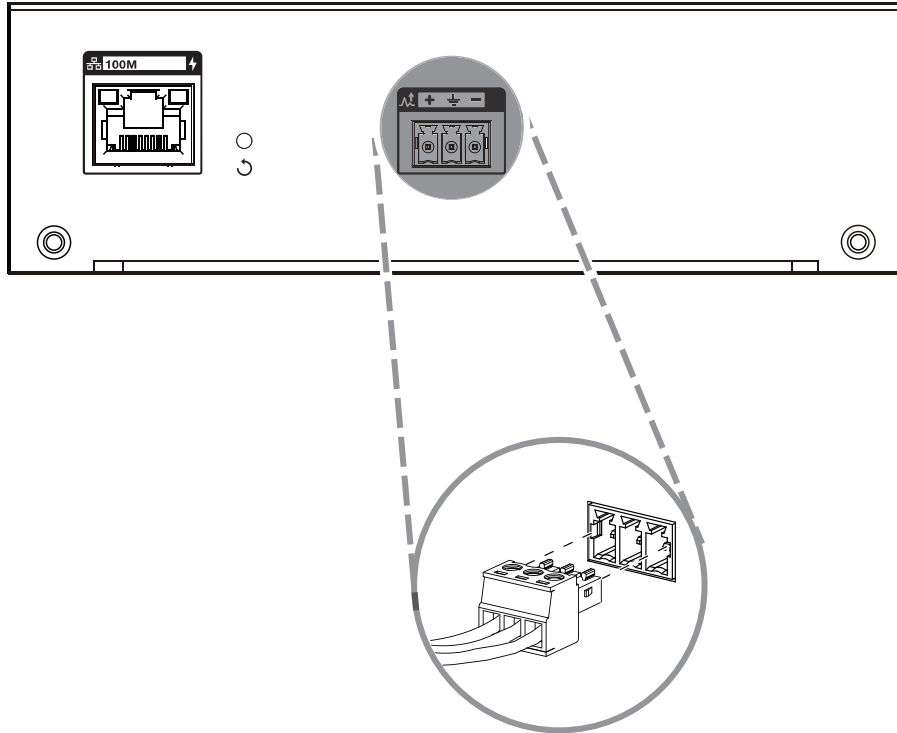


Figure 6.3: Network connection



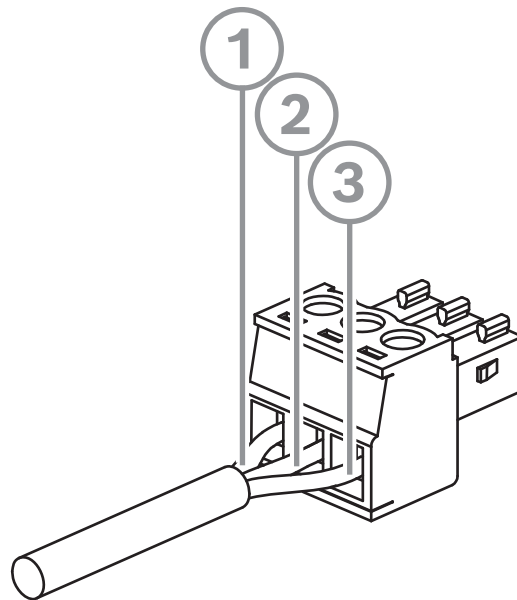
**Notice!**

Use Ultra Category 5 network cables (or higher).



**Figure 6.4:** Analog audio output connection

Use a three-pole balanced audio connection, paying attention to positive and negative polarity and grounding.



**Figure 6.5:** Analog audio 3-pole balanced connection



Nr.	Description
1	Anodal
2	Grounding
3	Cathode

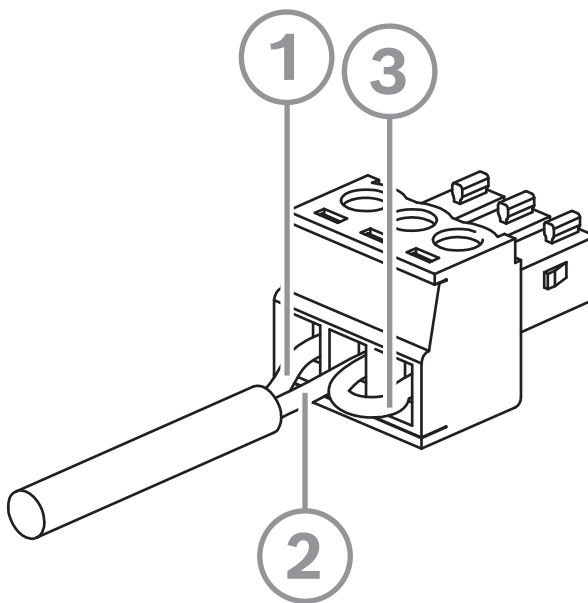
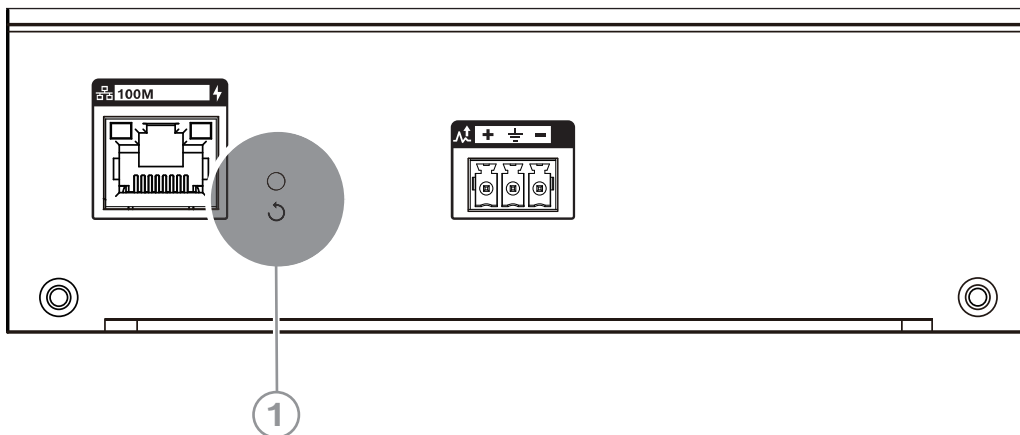


Figure 6.6: Analog audio 2-pole unbalanced connection

Nr.	Description
1	Anodal
2	Grounding
3	Negative to ground jumper

## 6.4 Device reset

Press and hold the device reset button for 5 seconds, then release the device to reboot and return to the factory default configuration.



Nr.	Icon	Indicator and control	Description
1		Device reset button	Restore factory default settings

## 6.5

### Technical data

#### Electrical

PoE power supply	
Rated input voltage (VDC)	48 V
Standard	IEEE 802.3af Class 3
Power consumption	<5 W

Network interface	
Ethernet type	100 BASE-TX
Ethernet protocol	TCP/IP, UDP, RTP, TFTP, HTTP, HLS
Audio encoding	MP3, PCM
Interface	1x RJ45

Analog audio input	
Frequency response	100 Hz – 18 kHz
Sampling rate	44.1 kHz
Type	1x Line level output

<b>Analog audio input</b>	
Connector	1x 3-pin Phoenix connector
Maximum output level	6 dBu
Output impedance	<400 $\Omega$

**Mechanical**

Material	Metal housing
Dimensions (H x W x D)	44 mm x 146 mm x 105 mm
Weight	465 g
Color (RAL)	RAL 9017 Traffic black

**Environmental**

Operating temperature (°C)	-5°C – 45°C
Storage and transportation temperature (°C)	-40°C – 70 C
Operating relative humidity, non-condensing (%%)	<95%

## 7 Interface module, 2x2 control, 1x1 audio (PRP-IM2C1A)

### 7.1 Introduction

The PRP-IM2C1A is a multi-functional IP module that can be connected to the PROSPERO public address system via a standard IP network for bi-directional audio and control signal transmission. It supports PoE power supply and can be connected to a general-purpose Ethernet switch using a single category 5 network cable. The rear back panel provides 1-channel audio input and 1-channel audio output interface for connecting audio source or amplifier, as well as 2-channel control input and 2-channel control output interfaces for triggering emergency tasks and linkage control output.

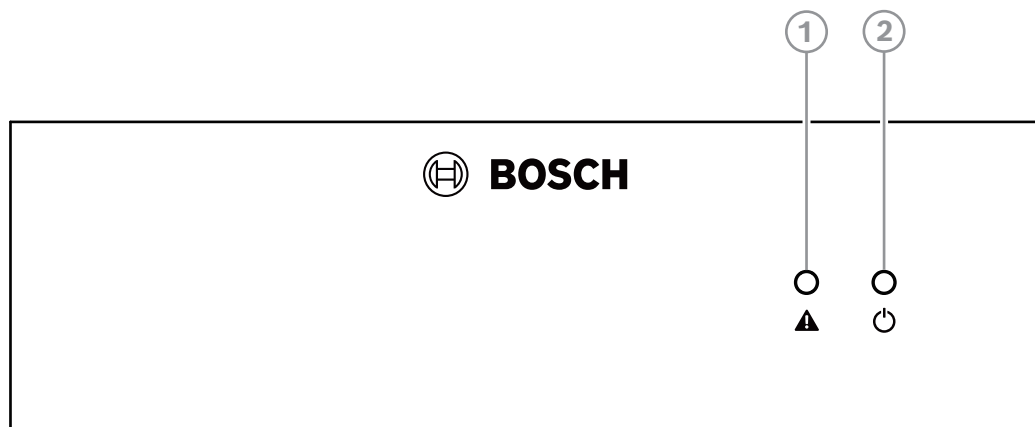
It can be fixed on the cabinet tray through the screw holes on the shell, and 3 IP modules can be installed side by side at 1U height racks.



Other attributes:

- Access to PROSPERO public address system via IP network
- 1 line level audio input for connecting audio sources
- 1 line level audio output for connection to an amplifier
- 2 dry contact control inputs for triggering emergency tasks
- Control Input 1 interface, which can be used to trigger paging tasks
- 2 relay control outputs, can be used for emergency task linkage outputs
- Power supply status and fault status indicators
- Fixed to the cabinet tray by screw holes position
- Compact form factor, 1U rack height for 3 modules side by side

### 7.2 Equipment overview

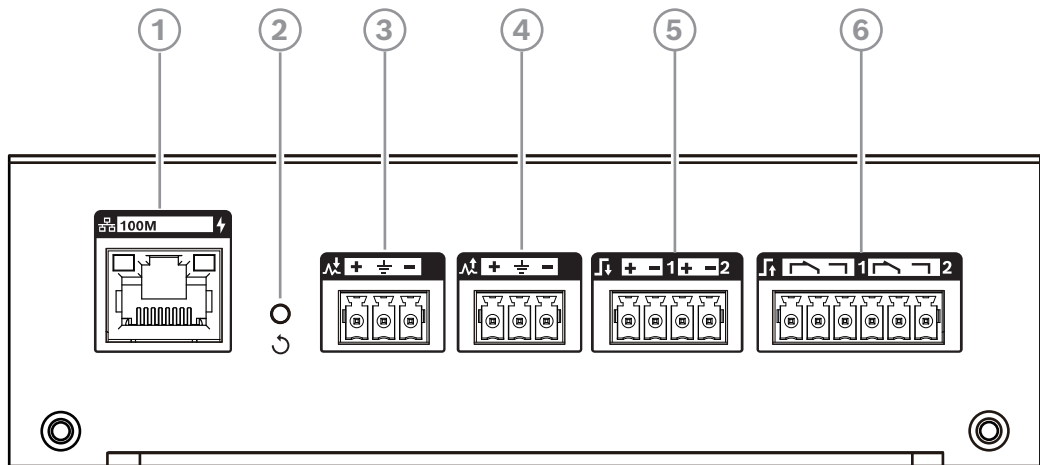
#### 7.2.1 Front view

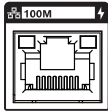
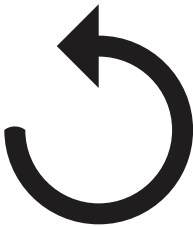
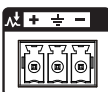


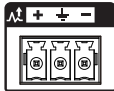


Nr.	Icon	Indicator and control	Description
1		Fault warning indicator	Blinking yellow: unauthorized Solid yellow: device failure
2		Power indicator	Green: On

7.2.2

Rear view

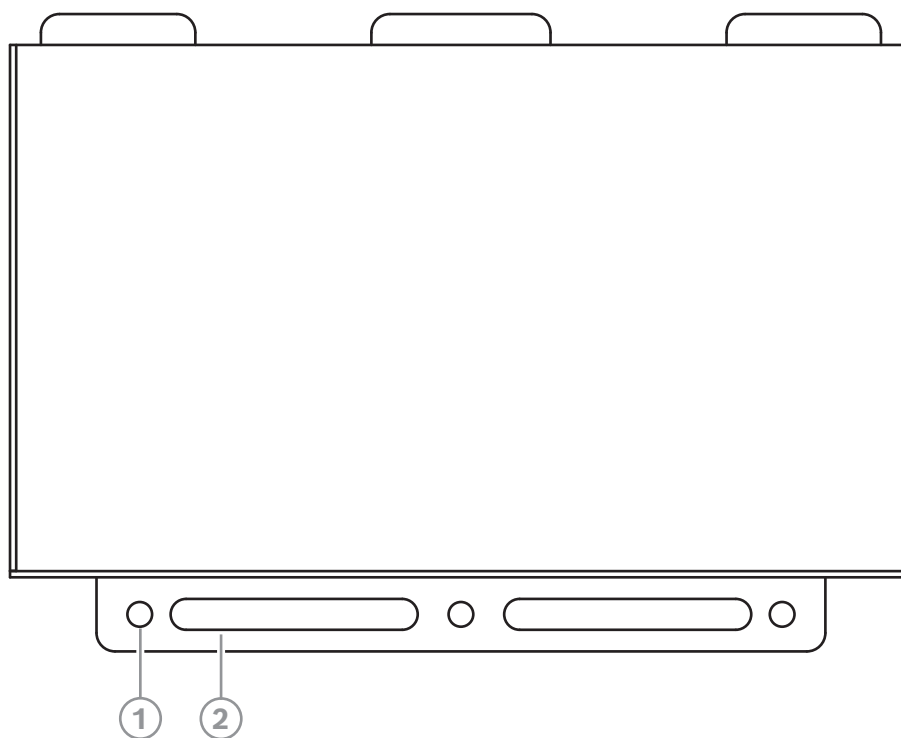


Nr.	Icon	Indicator and control	Description (default configuration)
1		Network interface	Connecting to a PoE network switch
2		Device reset button	Restore factory default settings
3		Analog audio input connector	Balanced line level audio input

Nr.	Icon	Indicator and control	Description (default configuration)
4		Analog audio output connector	Balanced line level audio output
5		Control inputs 1-2	Dry contact control input
6		Control output connections 1-2	Relay control output (normally closed/ normally open)

### 7.2.3

#### Top view



Nr.	Component	Description (default configuration)
1, 2	Set screw hole	Rack tray mounting screw holes

## 7.3 Mounting

### 7.3.1 Delivery condition

This module is shipped from the factory with the following default property settings:

Parameters	Setup/Description
IP address	192.168.1.105
Subnet mask	255.255.255.0
Server IP	192.168.1.6
Name	PRP-IM2C1A

### 7.3.2 Installation

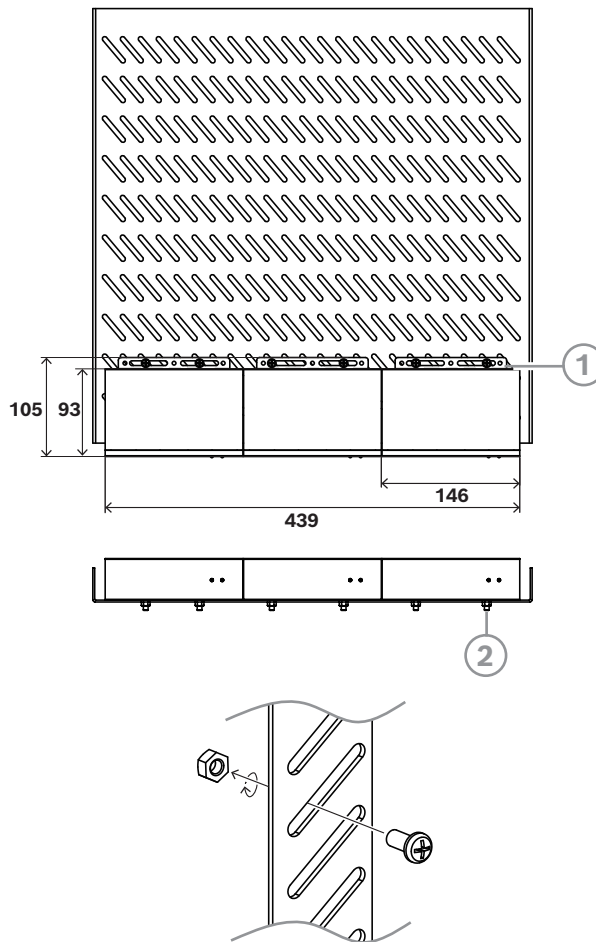
The PROSPERO interface modules can be mounted in combination, with the three modules horizontally combined being exactly the width of a 1U standard rack unit.

1. Place the module on the cabinet tray and use M4/M5 screws and nuts to secure the module to the cabinet tray through the mounting holes on the cabinet tray and the mounting holes on the bottom of the module.
2. Secure the tray to the rack.
3. Connect the network cable, audio cable, and control cable to the interface module.



#### **Notice!**

The cabinet trays need to be configured by the installer.



**Figure 7.1:** Fixing the module on the cabinet tray

Nr.	Description
1	Screw
2	Nut (female component of nut and bolt)



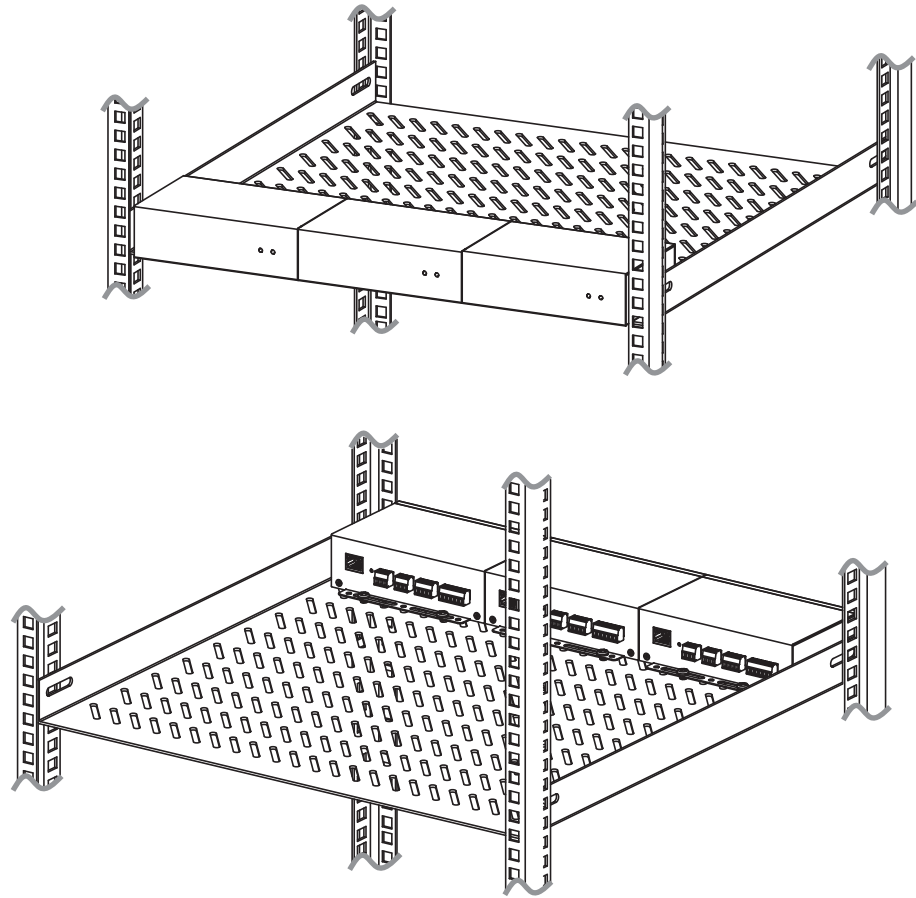


Figure 7.2: Fixing a tray in a rack

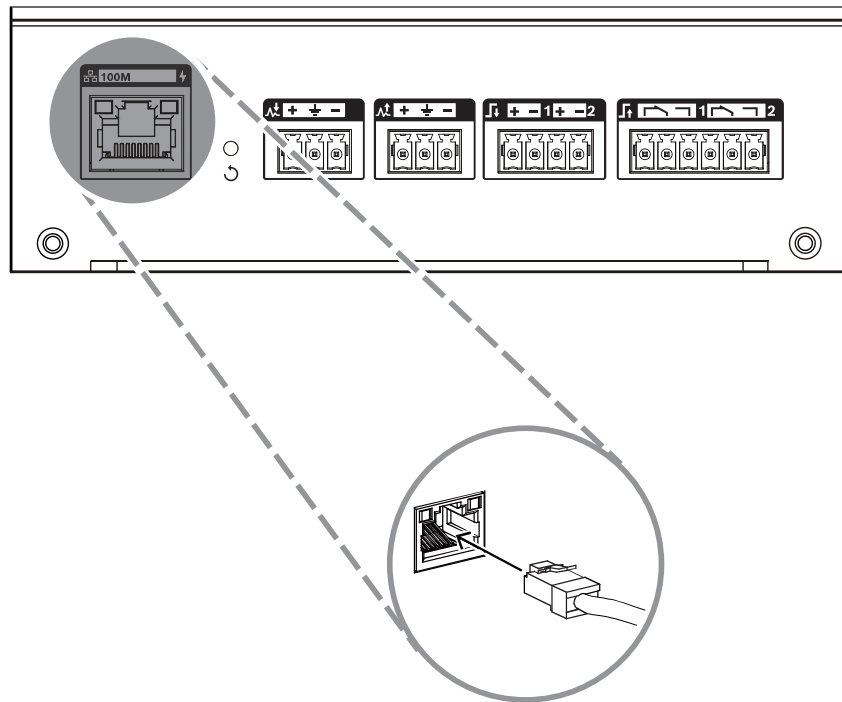
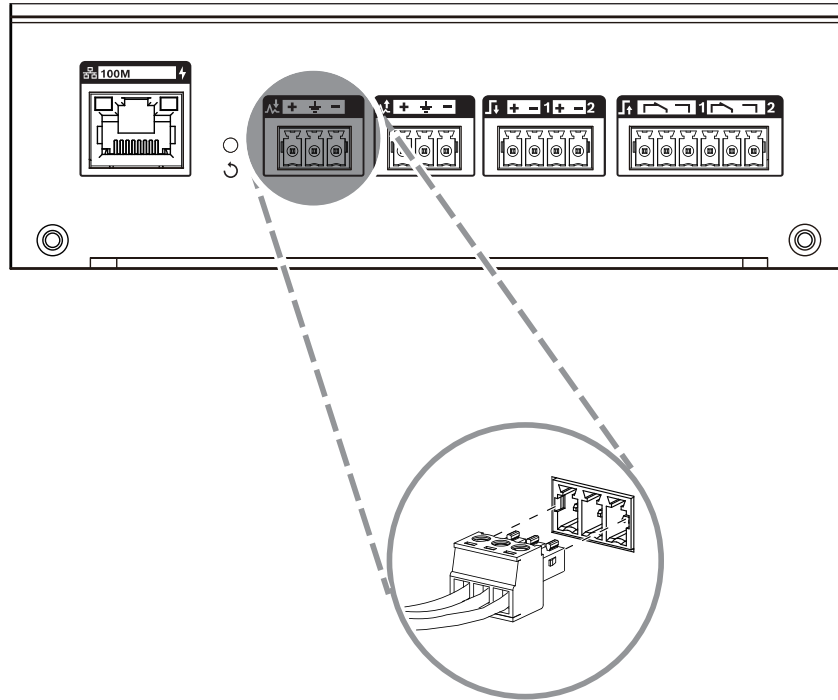


Figure 7.3: Network connection



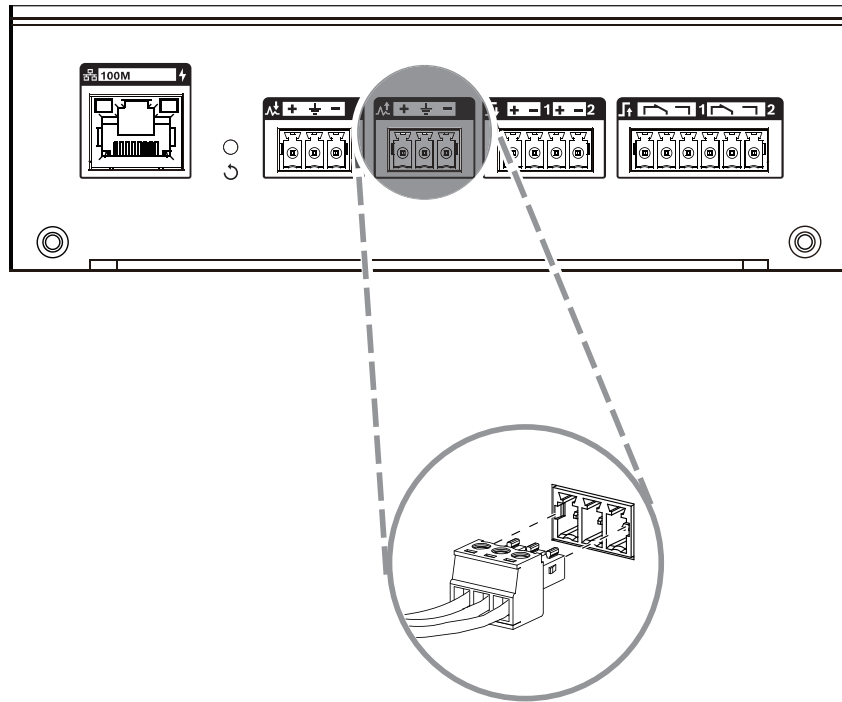
**Notice!**

Use Ultra Category 5 network cables (or higher gauge).



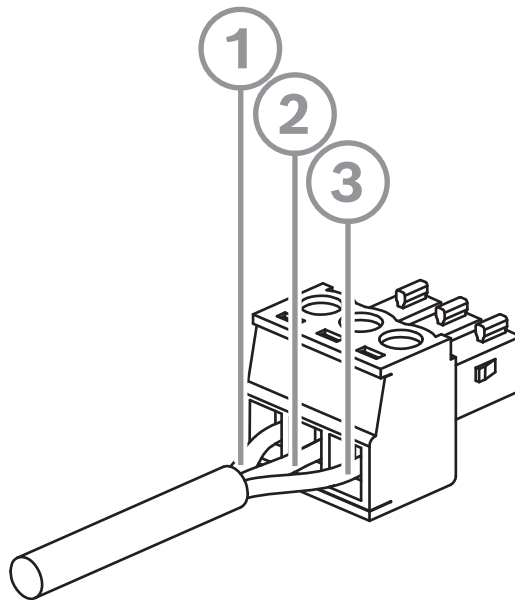
**Figure 7.4:** Analog audio input connection

Use a three-pole balanced audio connection, paying attention to positive and negative polarity and grounding.



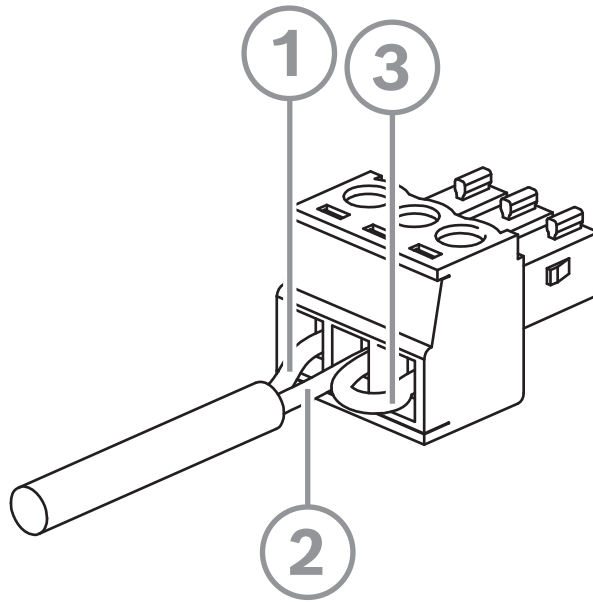
**Figure 7.5:** Analog audio output connection

Use a three-pole balanced audio connection, paying attention to positive and negative polarity and grounding.



**Figure 7.6:** Analog audio 3-pole balanced connection

Nr.	Description
1	Anodal
2	Grounding
3	Cathode



**Figure 7.7:** Analog audio 2-pole unbalanced connection

Nr.	Description
1	Anodal
2	Grounding
3	Negative to ground jumper

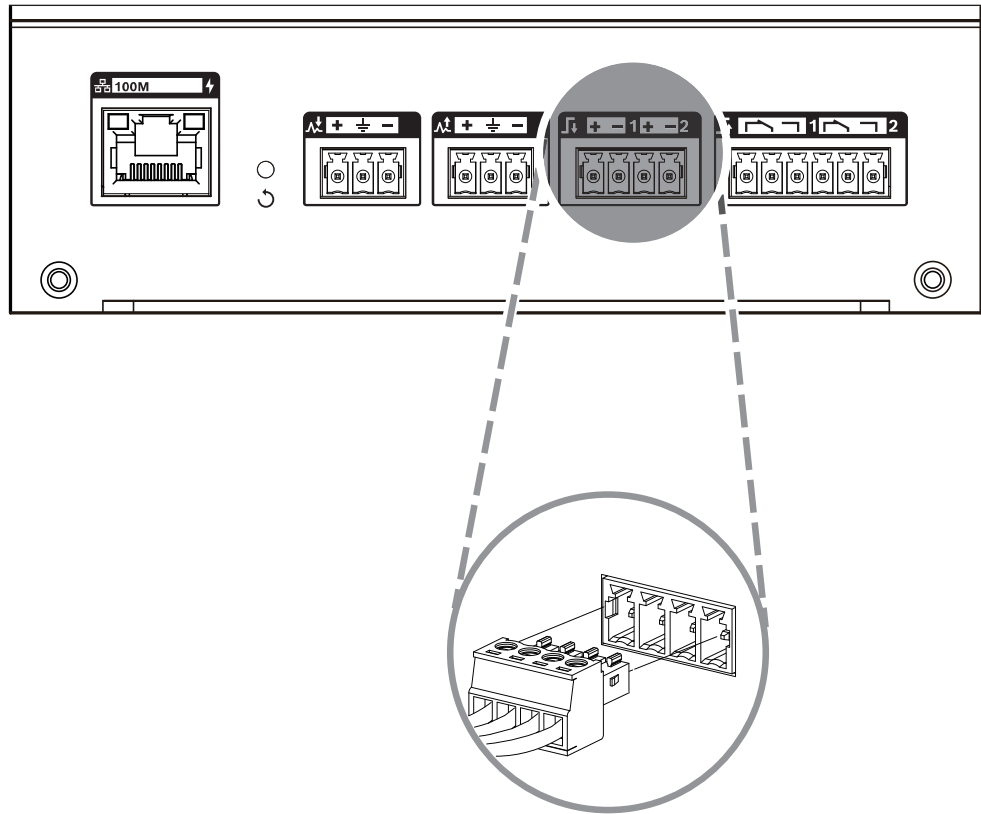


Figure 7.8: Dry contact control input connection

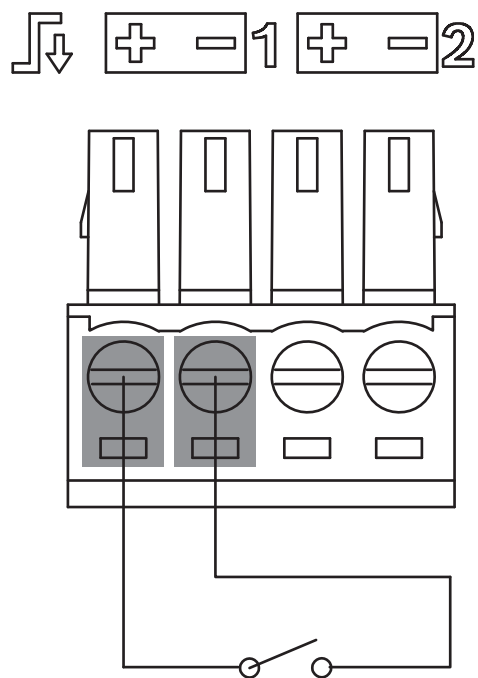
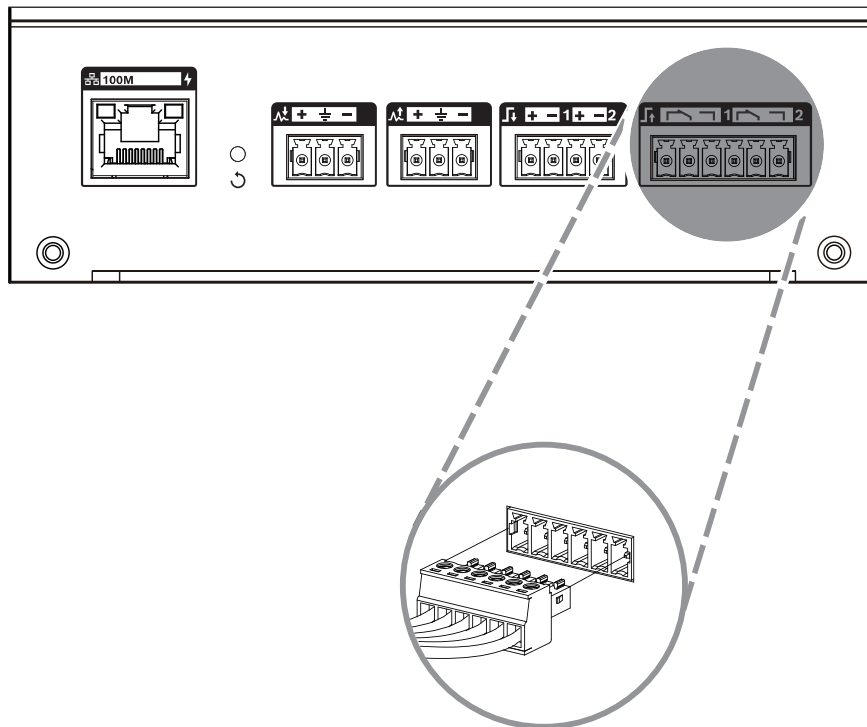
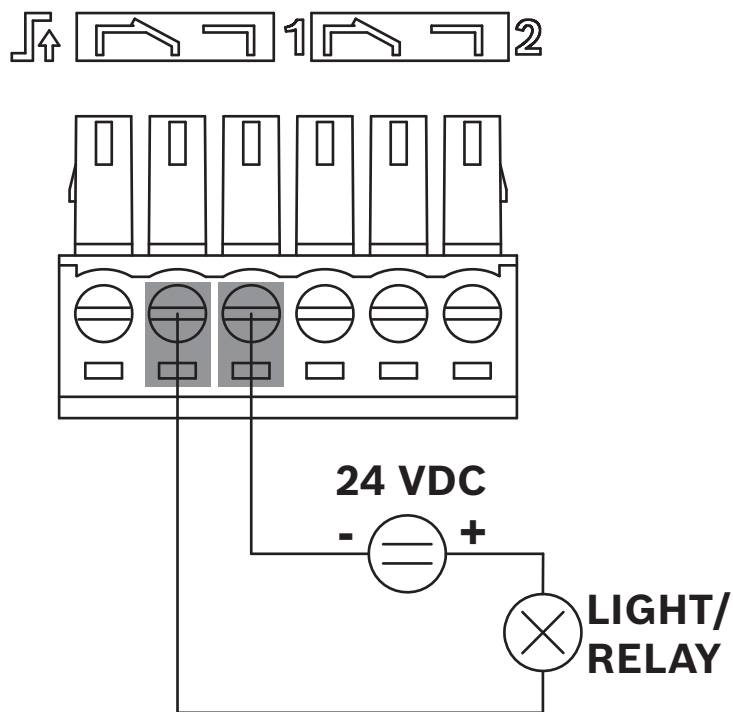


Figure 7.9: Example of control input connection



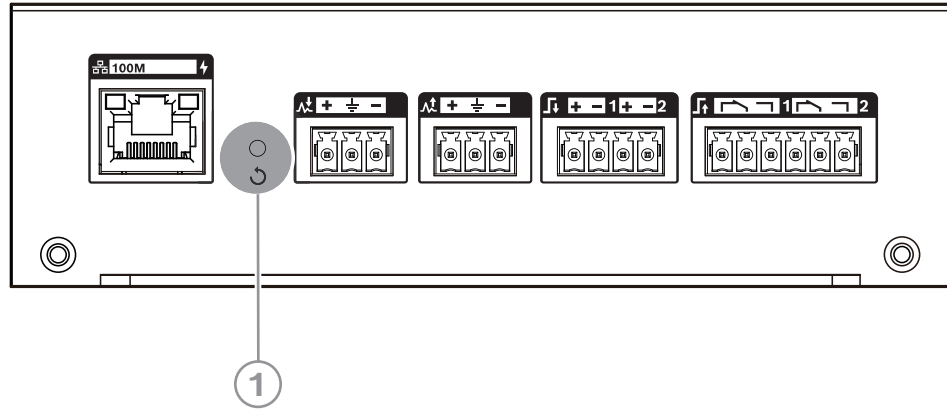
**Figure 7.10:** Relay control output connection  
Normally open or normally closed options are available.

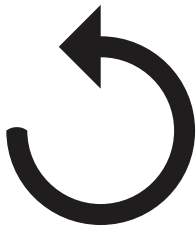


**Figure 7.11:** Example of control output connection

## 7.4 Device reset

Press and hold the device reset button for 5 seconds, then release the device to reboot and return to the factory default configuration



Nr.	Icon	Indicator and control	Description
1		Device reset button	Restore factory default settings

## 7.5 Technical data

### Electrical

PoE power supply	
Rated input voltage (VDC)	48 V
Standard	IEEE 802.3af Class 3
Power consumption	<5 W

Network interface	
Ethernet type	100 BASE-TX
Ethernet protocol	TCP/IP, UDP, RTP, TFTP, HTTP, HLS
Audio encoding	MP3, PCM
Interface	1x RJ45

Analog audio input	
Frequency response	100 Hz – 18 kHz
Sampling rate	44.1 kHz

<b>Analog audio input</b>	
Type	1x Line level output 1x Line level input
Connector	2x 3-pin Phoenix connector
Maximum input/output level	6 dBu
Input impedance	>40 k $\Omega$
Output impedance	<400 $\Omega$

<b>GPIO control input/output</b>	
Control input contacts	
Interface	2x 2-pin Phoenix connector
Principle	Contact closure
Contacts closed	<5 k $\Omega$
Contacts open	>15 k $\Omega$
Control output contacts	
Interface	2x 3-pin Phoenix connector
Principle	Contact switch over (Relay SPDT)
Maximum contact voltage (V)	30 V DC, 250 V AC
Maximum contact current (A)	1 A

### **Mechanical**

Material	Metal housing
Dimensions (H x W x D)	44 mm x 146 mm x 105 mm
Weight	475 g
Color (RAL)	RAL 9017 Traffic black

### **Environmental**

Operating temperature (°C)	-5°C – 45°C
Storage and transportation temperature (°C)	-40°C – 70 C
Operating relative humidity, non-condensing (%%)	<95%



## 8 Cabinet loudspeaker, 15 W (PRP-UC15L)

### 8.1 Introduction

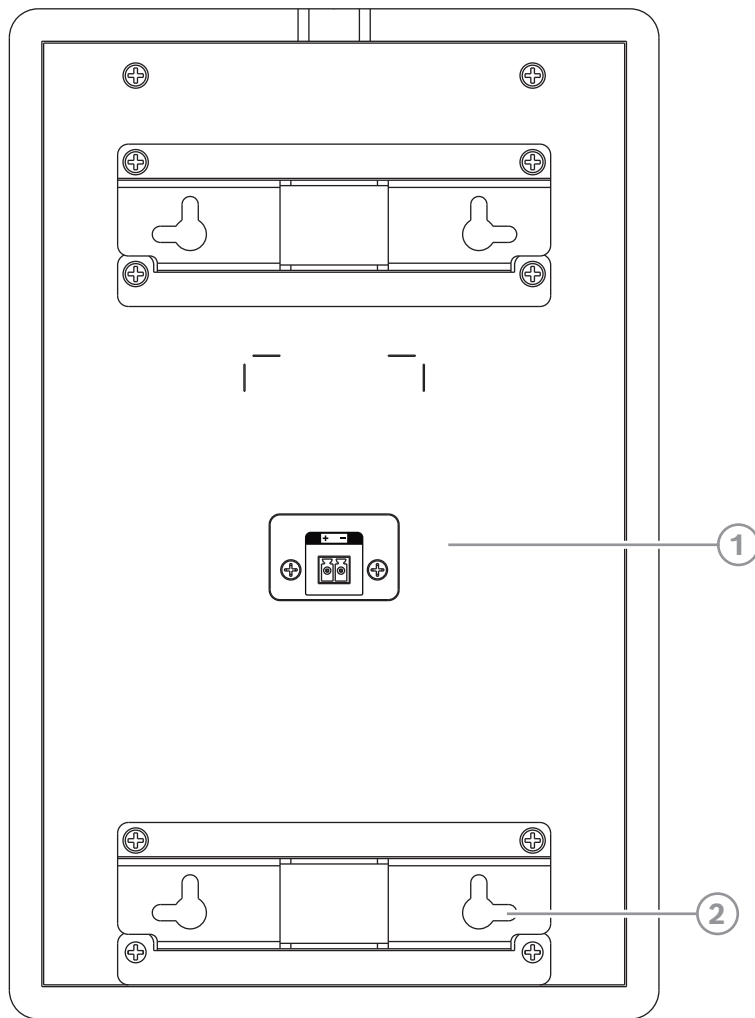
The PRP-UC15L is a passive speaker for use with the PRP-UC15L-IP active IP speaker in a white wooden enclosure for indoor applications. High-quality 5.2" full-range speaker unit and wooden cabinet with pilot holes for excellent voice clarity and background music effects. Rear panel comes with two sets of mounting brackets for optional horizontal or vertical wall mounting. Bosch logo on front panel rotates to match different mounting orientations.


Other attributes:

- Used in conjunction with PRP-UC15-IP active IP speakers to access PROSPERO public broadcasting system via IP network
- Rotatable front panel logo
- Mounting bracket included for horizontal or vertical wall mounting options

### 8.2 Equipment overview

Back view interface diagram



Nr.	Icon	Indicator and control	Description (default configuration)
1		Loudspeaker interface	Suitable for connecting PRP-UC15L-IP speakers
2		Mounting bracket	Bracket for wall mounting, horizontal or vertical mounting available

### 8.3

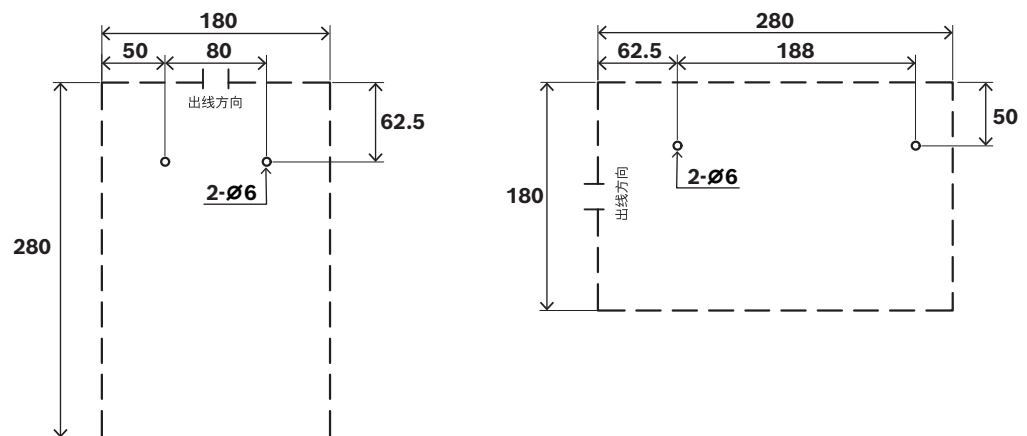
## Mounting

1. On the installation plane, open the M4 expansion bolt holes according to the requirements. The mounting method can be chosen horizontally or vertically according to the actual installation situation.
2. Connect the loudspeaker connecting wires and organize the wires into the outlet slots.
3. Suspend the product to the wall by mounting brackets.
4. Rotate the front panel logo to the correct orientation.



#### Notice!

Expansion bolts and screws for installation should be prepared by the installer.



**Figure 8.1:** Selecting and positioning the mounting method

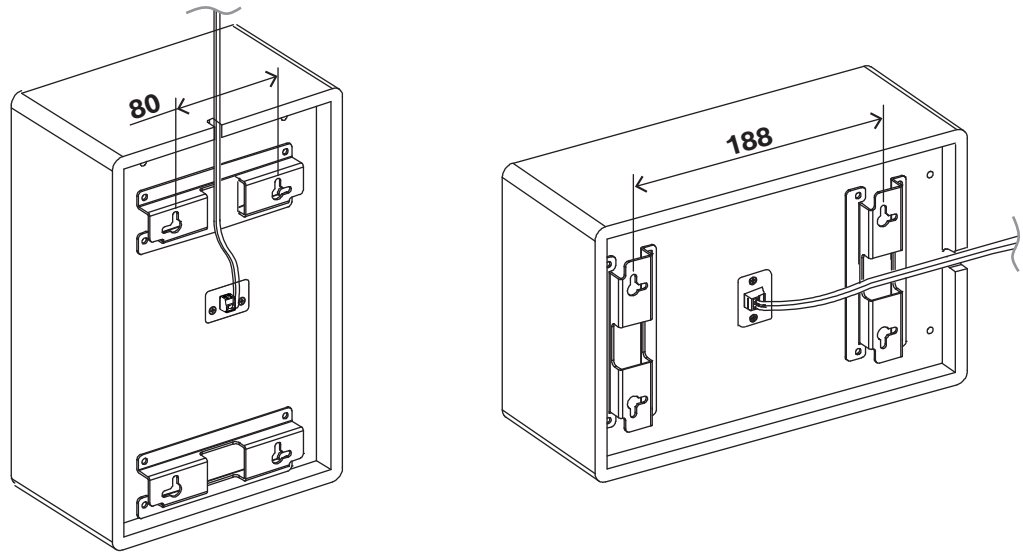


Figure 8.2: Organize speaker wiring

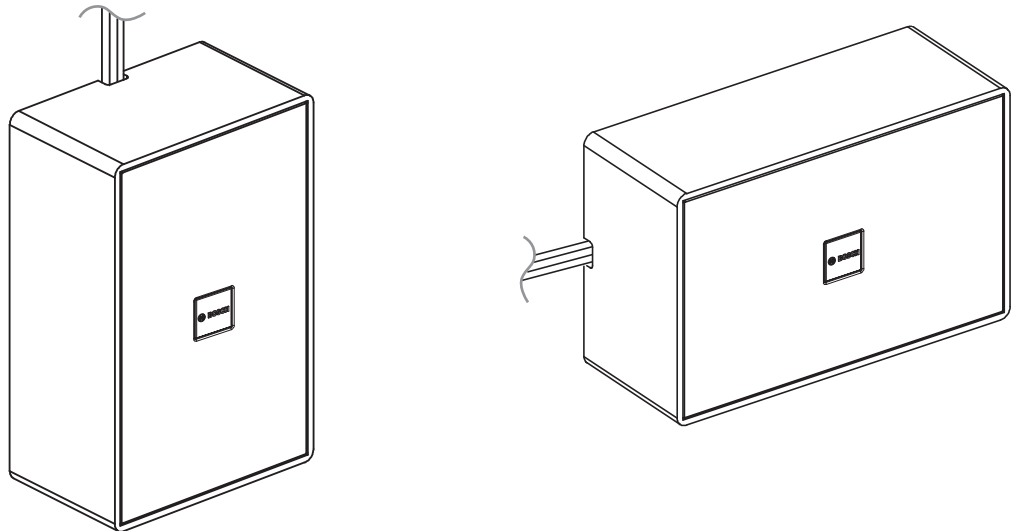


Figure 8.3: Hanging to the wall

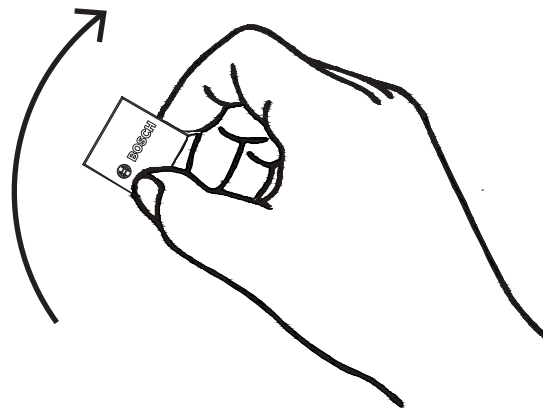
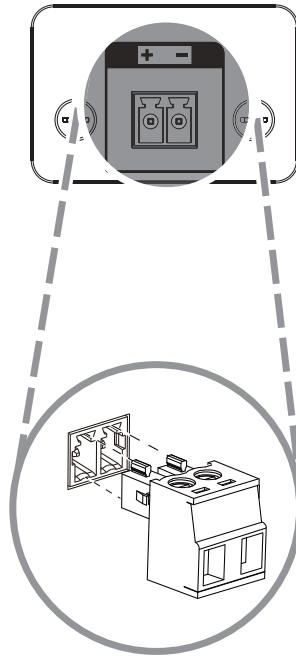


Figure 8.4: Rotating logo

## 8.4 Wire connection

The PRP-UC15L speaker can be connected to the loudspeaker port of the PRP-UC15L-IP speaker.



**Figure 8.5:** Loudspeaker connection

## 8.5 Technical data

### Electrical

<b>Speaker</b>	
Rated power (W)	15 W, 8 $\Omega$
Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	87 dB
Sound pressure level (rated power, 1 m, 1 kHz octave) (dB)	99 dB
Frequency range (-10 dB) (Hz)	95 Hz – 19.5 kHz
Coverage angle HxV (-6 dB, 1 kHz) (°)	184° x 170°
Coverage angle HxV (-6 dB, 4 kHz) (°)	112° x 35°

<b>Analog audio input</b>	
Type	1x Loudspeaker output
Interface	1x 2-pin Phoenix connector

### Mechanical

<b>Speaker</b>	
Material	Wooden case, metal grille

<b>Speaker</b>	
Dimensions (H x W x D)	280 mm x 180 mm x 110 mm
Weight	2300 g
Color (RAL)	RAL 9003 Signal white

<b>Brackets</b>	
Material	Metal
Color (RAL)	RAL 9017 Traffic black
Mounting	Wall-mounted, optional horizontal or vertical orientation

**Environmental**

Operating temperature (°C)	-5°C – 45°C
Storage and transportation temperature (°C)	-40°C – 70 C
Operating relative humidity, non-condensing (%%)	<95%

## 9 Cabinet loudspeaker, 15 W, IP (PRP-UC15L-IP)

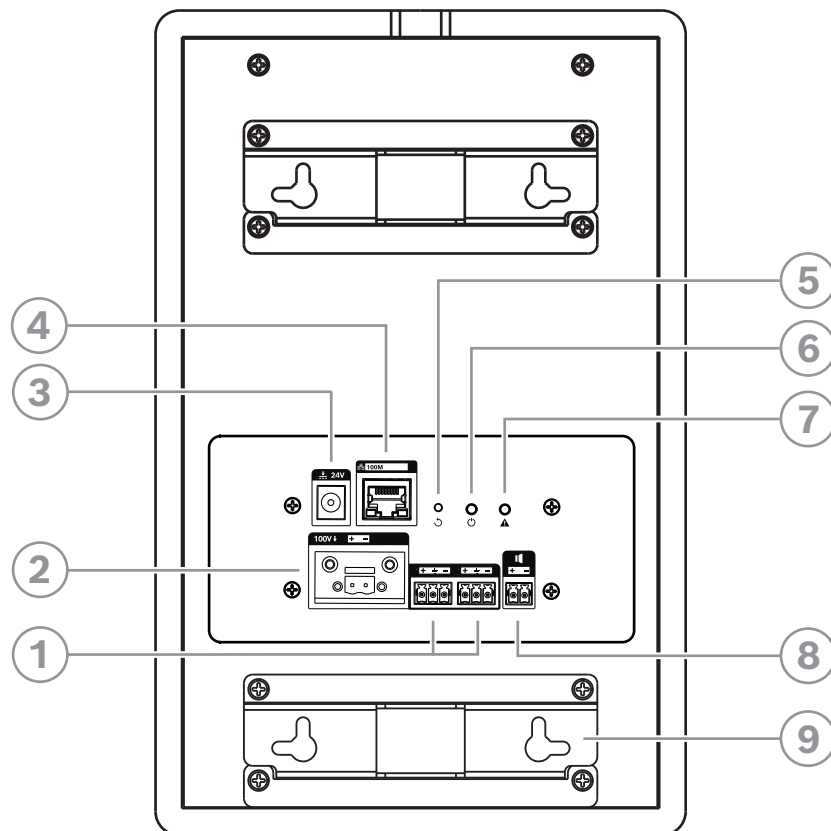
### 9.1 Introduction


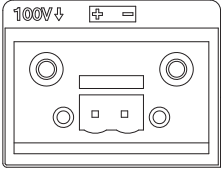
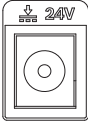
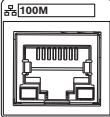
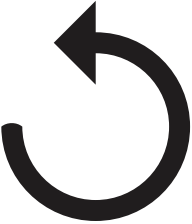


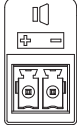
The PRP-UC15L-IP is a versatile active IP speaker with a white wooden enclosure for indoor applications. High-quality 5.2-inch full-range speaker unit and wooden cabinet with guide holes achieve excellent voice clarity and background music effect. Built-in dual-channel digital amplifier can drive a matching passive loudspeaker in addition to the main unit. The rear panel provides local audio input and exam mode high priority input jacks and comes with two sets of mounting brackets for either landscape or portrait wall mounting. The Bosch logo on the front panel can be rotated to match different mounting orientations. Other attributes:

- Access to PROSPERO public address system via IP network
- Built-in dual-channel 15W digital power amplifier
- 2 local audio inputs for connecting audio sources and wireless microphones
- 100 V input signal is prioritized when exam mode is enabled
- Loudspeaker output port to directly drive a matching loudspeaker
- Power supply status and fault status indicators
- Rotatable front panel logo
- Mounting bracket included for horizontal or vertical wall mounting options

### 9.2 Equipment overview

#### Back view interface diagram



Nr.	Icon	Indicator and control	Description
1		Analog audio input jacks 1-2	Local balanced line level audio input
2		100 V audio input connector	Alternate 100 V constant voltage broadcast audio input
3		Power supply interface	Connect 24 V DC/2 A power adapter
4		Network interface	Connecting to a network switch
5		Device reset button	Restore factory default settings
6		Power indicator	Green: On
7		Fault warning indicator	Blinking yellow: unauthorized Solid yellow: device failure
8		Loudspeaker interface	Suitable for connecting PRP-UC15L loudspeaker
9		Mounting bracket	Bracket for wall mounting, horizontal or vertical mounting available

## 9.3 Mounting

### 9.3.1 Delivery conditions

The speaker is shipped from the factory with the following default property settings:

Parameters	Setup/Description
IP address	192.168.1.105
Subnet mask	255.255.255.0
Server IP	192.168.1.6
Name	PRP-UC15L-IP

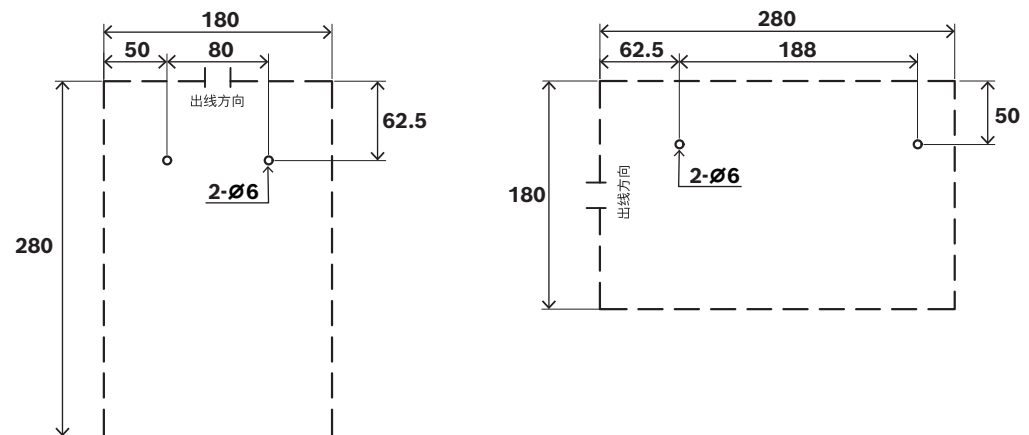
### 9.3.2 Installation

1. On the installation plane, open the M4 expansion bolt holes according to the requirements. The mounting method can be chosen horizontally or vertically according to the actual installation situation.
2. Connect the network cable, power adapter, audio signal input cable, loudspeaker connection cable, and organize the wires into the outlet slot.
3. Suspend the product to the wall by mounting brackets.
4. Rotate the front panel logo to the correct orientation.



#### Notice!

Expansion bolts and screws for installation should be prepared by the installer



**Figure 9.1:** Selection and positioning of the mounting method



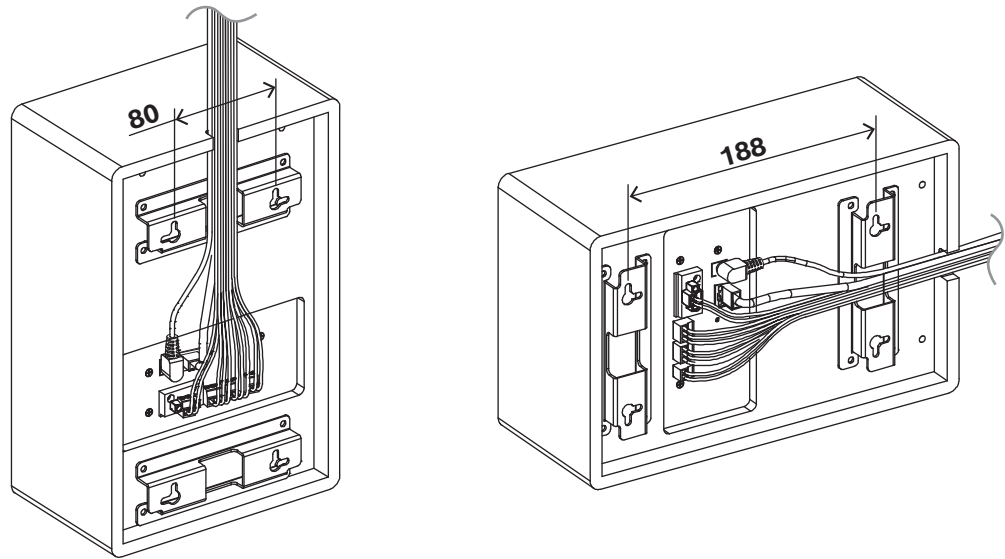


Figure 9.2: Organize speaker wiring

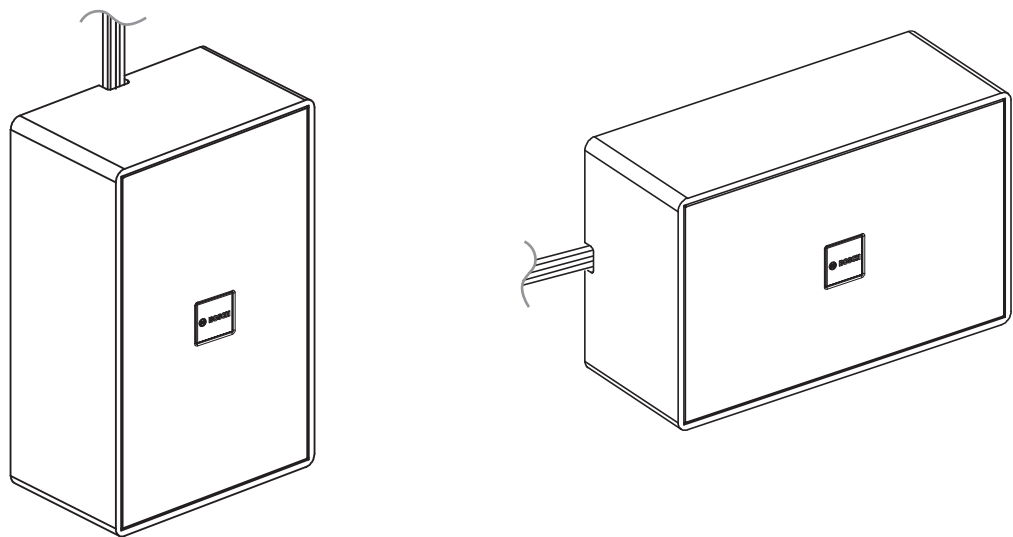


Figure 9.3: Hanging to the wall

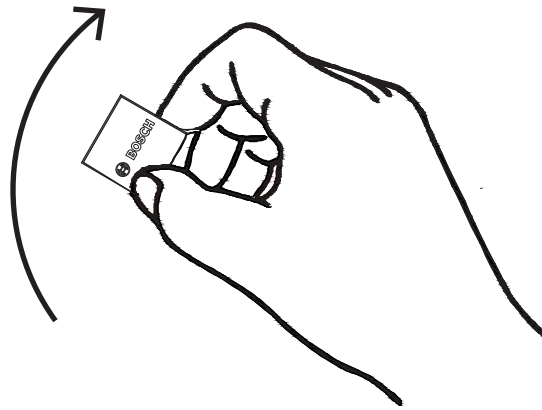


Figure 9.4: Rotating logo

## 9.4 Wire connection

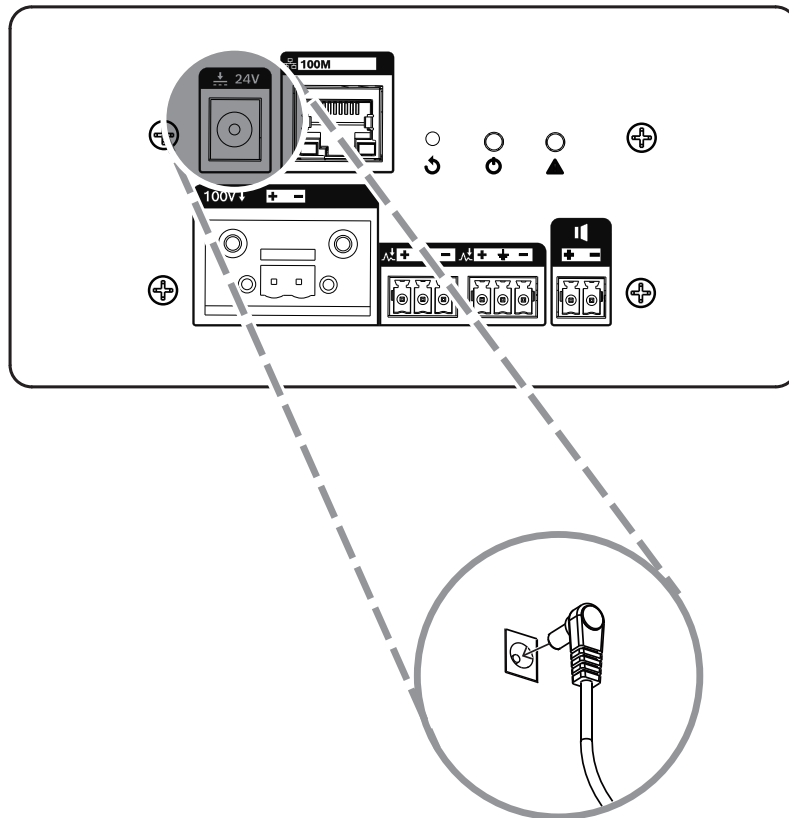


Figure 9.5: Power supply connection

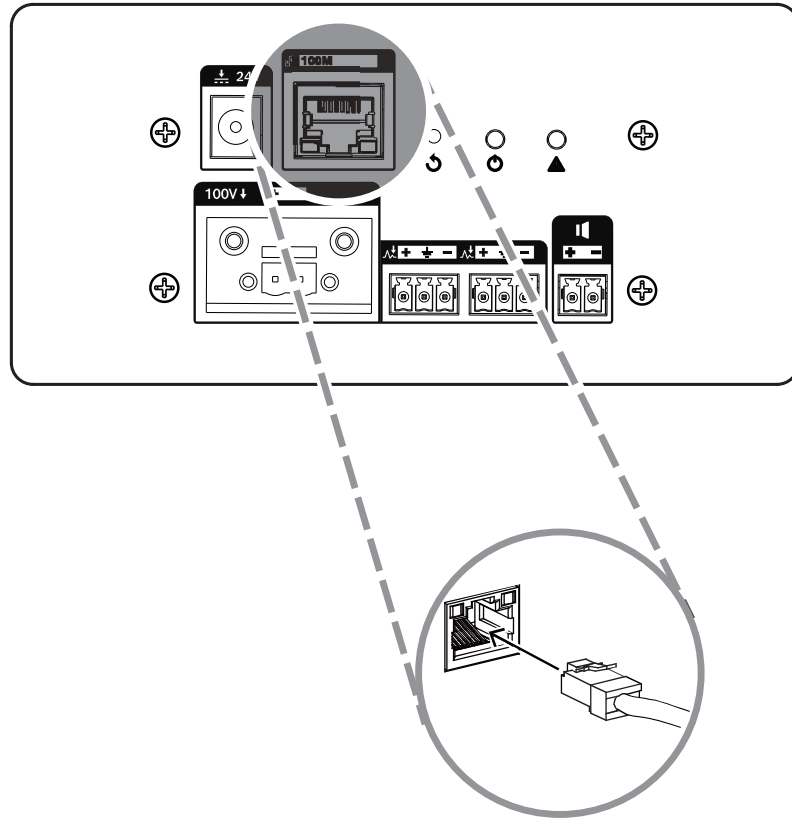


Figure 9.6: Network connection

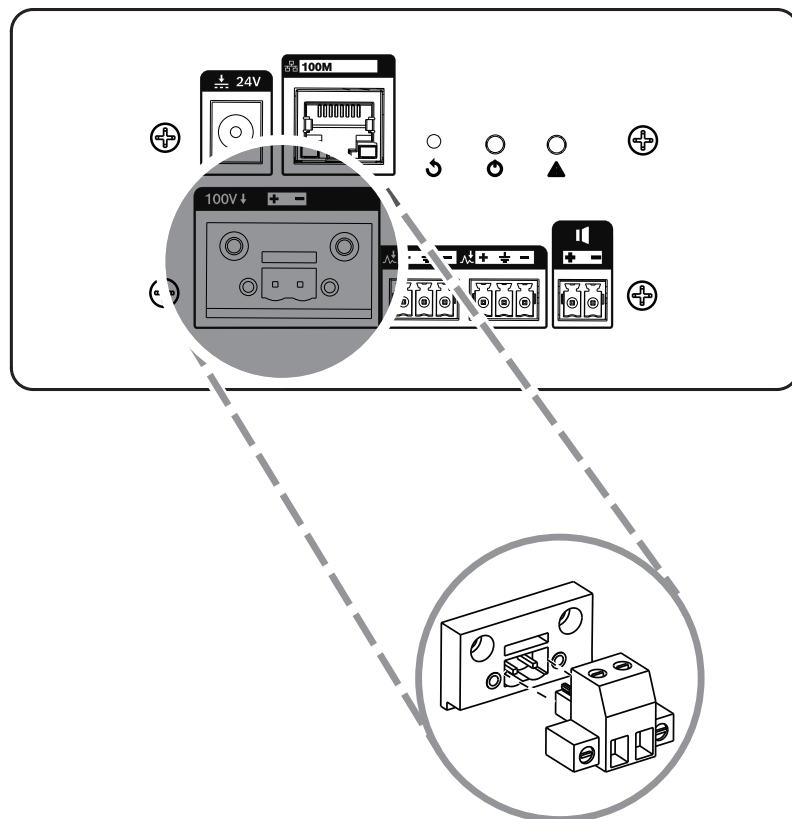
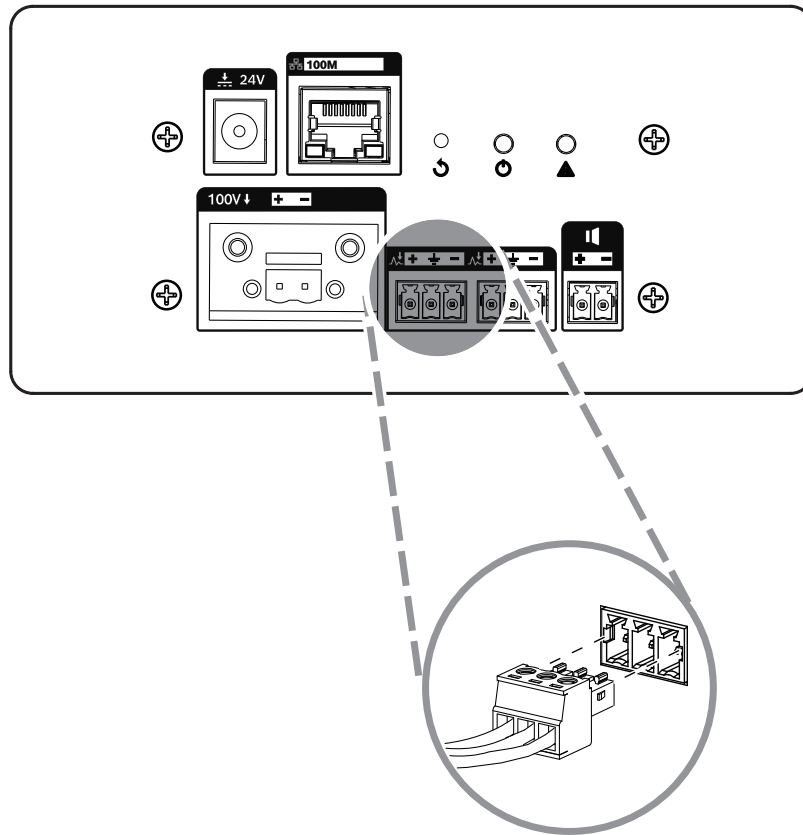
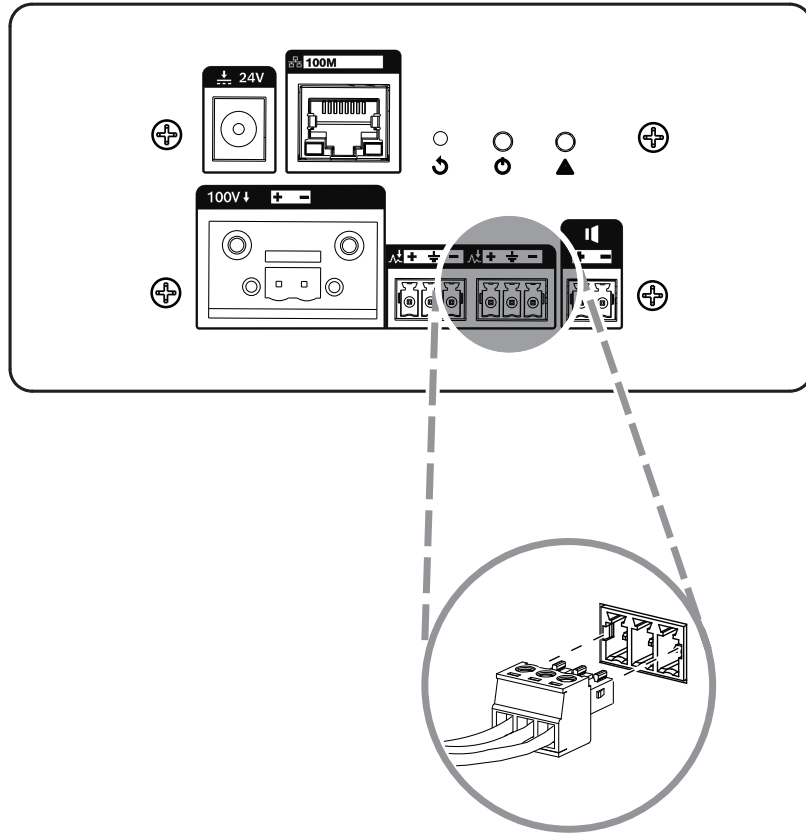


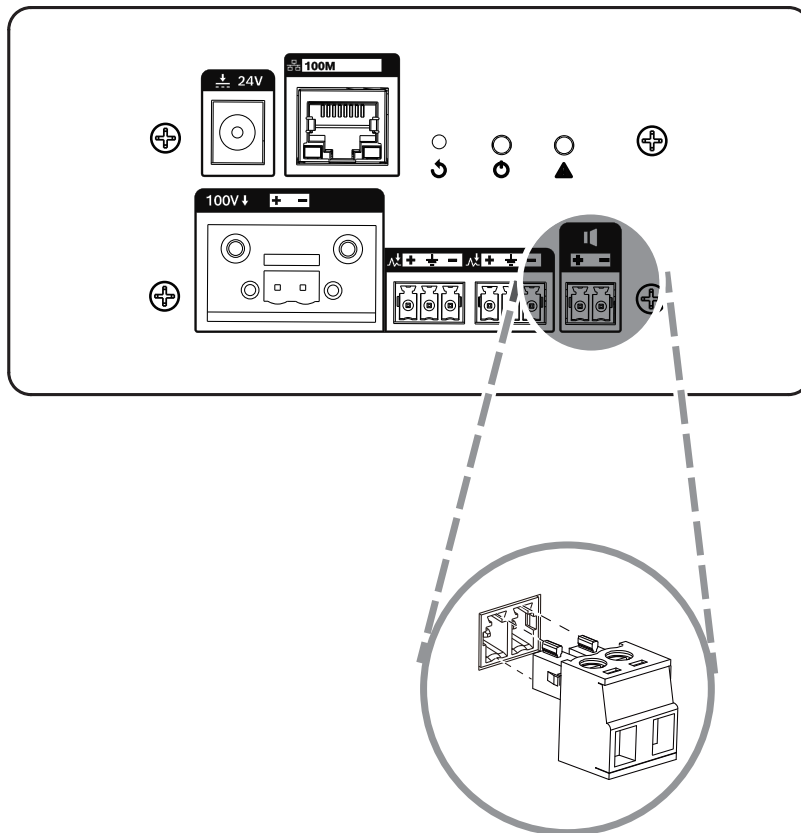
Figure 9.7: 100 V audio input connection



**Figure 9.8:** Local analog audio input 1 connection



**Figure 9.9:** Local analog audio input 2 connection



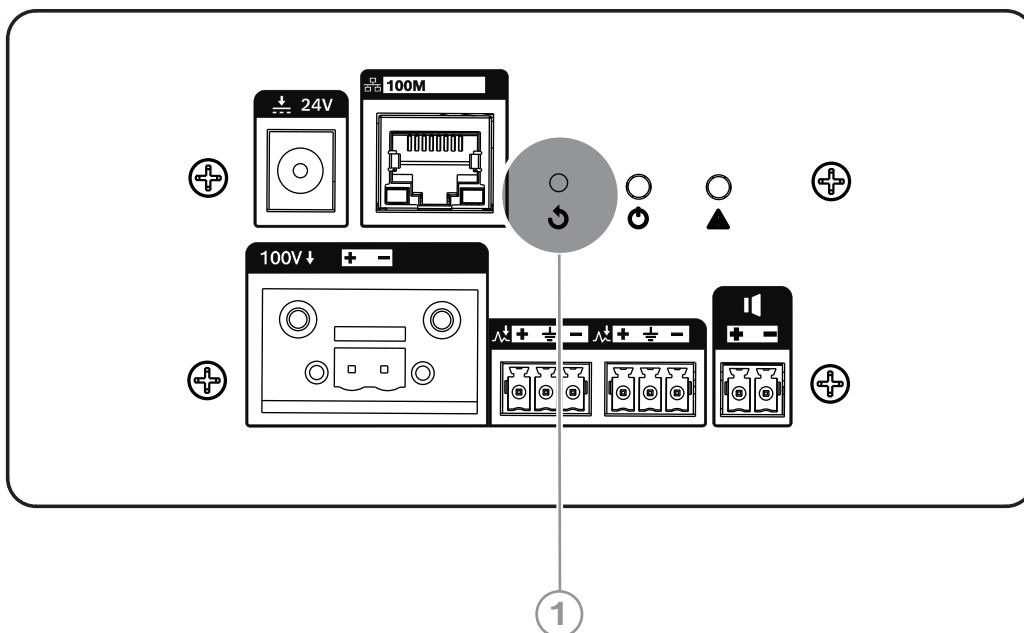
**Figure 9.10:** Loudspeaker connection

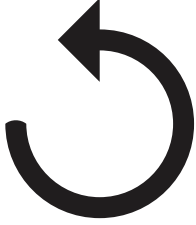
The PRP-UC15L-IP speaker can be connected to one PRP-UC15L 15 W loudspeaker.

## 9.5

### Device reset

Press and hold the device reset button for 5 seconds, then release the device to reboot and return to the factory default configuration.



Nr.	Icon	Indicator and control	Description
1		Device reset button	Reset factory default settings

## 9.6

### Technical data

#### Electrical

Power supply	
Power adapter	24 V / 2 A DC
Power consumption	<3 W @Standby
	<25 W @Rated output

Speaker	
Rated power (W)	15 W, 8 $\Omega$
Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	87 dB
Sound pressure level (rated power, 1 m, 1 kHz octave) (dB)	99 dB
Frequency range (-10 dB) (Hz)	95 Hz – 19.5 kHz
Coverage angle HxV (-6 dB, 1 kHz) (°)	184° x 170°
Coverage angle HxV (-6 dB, 4 kHz) (°)	112° x 35°

Power amplifier	
Type	2x 15 W, Class D amplifiers

Network interface	
Ethernet type	100 BASE-TX
Ethernet protocol	TCP/IP, UDP, RTP, TFTP, HTTP, HLS
Audio encoding	MP3, PCM
Interface	1x RJ45

Analog audio input	
Type	1x Loudspeaker output
	1x 100 V high priority input
	2x Line level input

<b>Analog audio input</b>	
Interface	2x 2-pin Phoenix connector
	2x 3-pin Phoenix connector
Maximum input level	6 dBu
Input impedance	>7 kΩ

**Mechanical**

<b>Speaker</b>	
Material	Wooden case, metal grille
Dimensions (H x W x D)	280 mm x 180 mm x 110 mm
Weight	2700 g
Color (RAL)	RAL 9003 Signal white

<b>Brackets</b>	
Material	Metal
Color (RAL)	RAL 9017 Traffic black
Mounting	Wall-mounted, optional horizontal or vertical orientation

**Environmental**

Operating temperature (°C)	-5°C – 45°C
Storage and transportation temperature (°C)	-40°C – 70 C
Operating relative humidity, non-condensing (%%)	<95%



---

## 10 Maintenance and service

Periodically (e.g., twice a year or in compliance with local codes) check that the entire system is working properly, especially if the system is used only as a voice alarm system and does not play regular announcements or background music in the zoning.

### 10.1 Preventive maintenance

#### Cleaning

Wipe clean only with a dry or damp soft cloth.



#### Notice!

Do not use alcohol, ammonia or petroleum solvents or abrasive cleaners to clean the devices.

---

### 10.2 Corrective maintenance

In case of fault reports, a qualified technician should perform:

- Fault analysis;
- Elimination of the part that causes the failure;
- Replacement of the part;
- Test of the associated functions.





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