

Quick Start Guide

PRC-16-205
PRC-16-312

Important Safety Instructions

Please read the supplied safety instruction document before using the product and keep it available for future reference.

Introduction

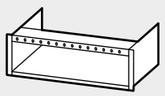
The PRC-16 series devices (Powered Rackmount Cage for 16 extenders; 5V / 12V power connector variants) are a rack mount cage accessory enclosing up to 16x optical or AV over IP (e.g. VINX and TPX series) extenders, or distribution amplifiers in any combination, also providing a power source for every installed device. Reliable, safe, and secure operation is assured by numerous built-in protections against short circuits and overloads.

Compatible Devices

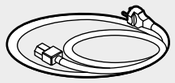
The following table contains the compatible Lightware products that can be mounted to the PRC-16 series cage models:

Rackmount cage model	Power inlet	Extender model
PRC-16-205	5V	VINX-110-HDMI-DEC; VINX-120-HDMI-ENC
		HDMI-OPT-TX100; HDMI-OPT-TX100R; HDMI-OPT-TX200R; HDMI-OPT-RX100; HDMI-OPT-RX100R; HDMI-OPT-RX200R
		HDMI-3D-OPT-RX150RA
PRC-16-312	12V	HDMI-TPX-TX106; HDMI-TPX-TX106A; HDMI-TPX-RX106

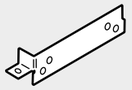
Box Contents



PRC-16 series device built with rack ears (2x) and cable guides (2x)



IEC power cable



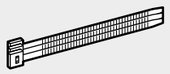
Extender bracket (16x)



M3x5mm PH screw, flat head (32x)



M4x8mm PH screw, D head (16x)



Cable tie (32x)



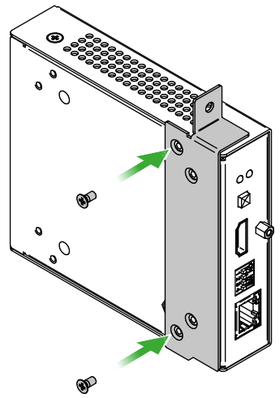
Safety and Warranty Info, Quick Start Guide

Assembly Steps for the Mounting of the Extenders

The following step-by-step assembly guide helps install the signal extenders into the Powered Rackmount Cage correctly.

Step 1 - Assembly of the extender bracket.

Fasten the mounting bracket (highlighted with grey) onto the bottom of the extender with the provided M3x5mm PH flat head black screws (2 pcs per bracket) with a PH2 screwdriver.



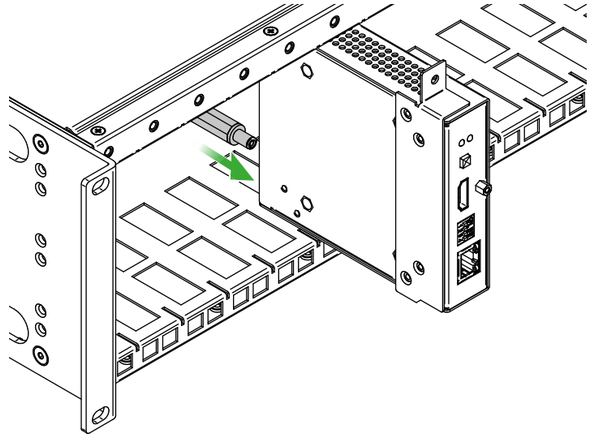
Required screw:



M3x5, PH, flat head, black

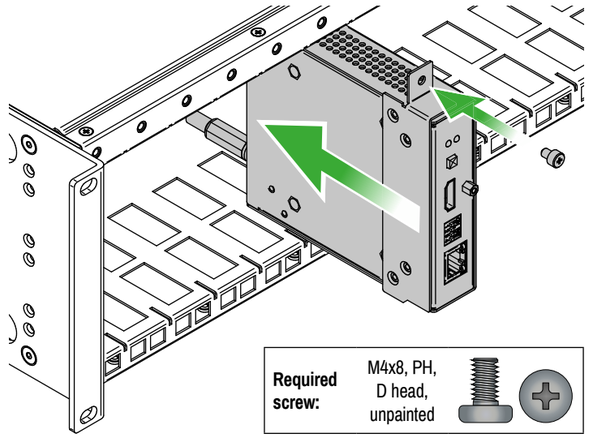
Step 2 - 5V / 12V DC power cable connection.

Pull out the 5V DC (in case of PRC-16-205) or 12V DC (in case of PRC-16-312) power cable (highlighted with grey) that belongs to the desired slot from the enclosure and connect it to the power connector of the extender.



Step 3 - Fastening the extender in the mounting slot.

Place the extender (highlighted with grey) into the desired mounting slot and fasten the extender bracket with 1 pc M4x8mm PH D head unpainted screw with a PH1 screwdriver. Pay attention to the guide rails of the cage when placing the extender.



Required screw:

M4x8, PH, D head, unpainted

Assembly of the Rack Ears and the Cable Guides

The following typical application drawings demonstrate examples for three different installations of the rack ears and the cable guides in the Powered Rackmount Cage.

Figure 1 - Front Installation (Default State)

ℹ *It is recommended if you have a shallow rack and all cabling is done on the rear side.*

The rack ears (highlighted with blue) are fixed to the front side and they are positioned in line with the extenders. One cable guide (highlighted with green) is fixed to the rear side in the lower position.

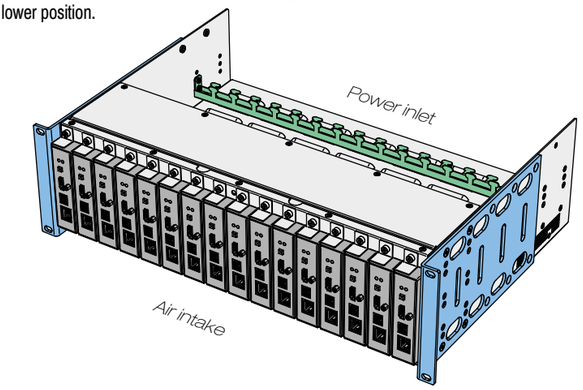


Figure 2 - Front and Rear Installation

ℹ *It is recommended if you have a deep rack and you need cabling on the front and the rear side as well.*

The rack ears (highlighted with blue) are fixed to the front side in the foremost position.

Two cable guides (highlighted with green) are fixed to the device, one is to the front side in the middle position, the second one is to the rear side in the lower position.

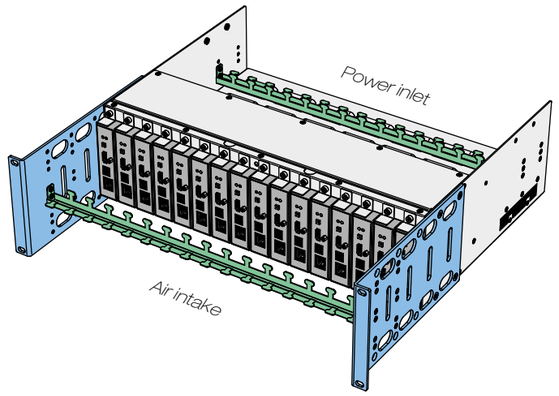
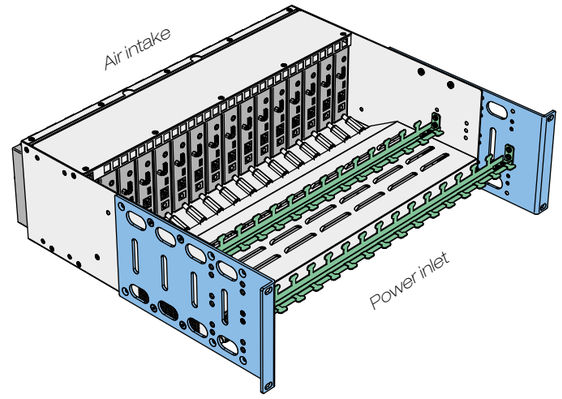


Figure 3 - Rear Installation

ℹ *It is recommended if you have a deep rack and all cabling has to be accessed from the front.*

The rack ears (highlighted with blue) are fixed to the rear side in the rearmost position.

Two cable guides (highlighted with green) are fixed to the rear side of the device in the middle position.



Transposition of the Rack Ears

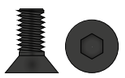
The rack ears of the cage can be moved to various positions. One rack ear is built with 10 screw holes and the enclosure has 12 screw positions per side, which can provide several different positions of the device in the rack shelf - see examples in the ***Assembly of the Rack Ears and the Cable Guides*** section.

The rack ears can be fixed on the front or the rear sides depending on the current usage of the extenders.

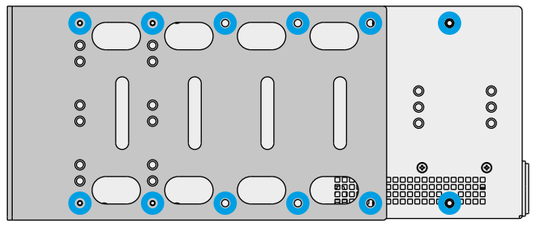
⚠ ***Always fasten the rack ears with at least 4 screws per ear.***

The screw holes of the enclosure (light grey) where the rack ears (dark grey) can be fixed are highlighted with blue on the side view figure below.

Required screw:



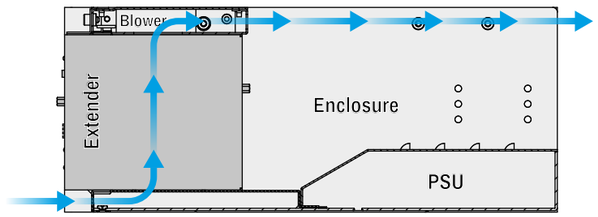
M4x8, Allen, flat head, black



Ventilation

⚠ ***To ensure the correct ventilation and avoid overheating, provide enough free space around the ventilation holes.***

The following cross-sectional view of the device shows the direction of the airflow (blue arrows).



Cross-sectional view

TAKE CARE OF ME



I AM THE ONE AND ONLY USER DOCUMENT FOR THIS PRODUCT

Lightware Visual Engineering PLC.
Budapest, Hungary

sales@lightware.com +36 1 255 3800
support@lightware.com +36 1 255 3810

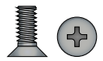
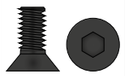
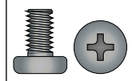
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Further information on the device is available at www.lightware.com.

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Screw Types of the Powered Rackmount Cage

The device contains several different screw types. The following table makes a comparative list about the accessory and built-in screws of the cage.

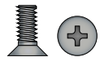
	M3x5, flat head, PH, black	M3x6, flat head, PH, unpainted	M4x8, flat head, Allen, black	M4x8, D head, PH, unpainted
				
Quantity	32 pcs	8 pcs	8 pcs	16 pcs
Original location	Supplied as accessory	Assembled in the device	Assembled in the device	Supplied as accessory
Required tool	PH2 screwdriver	PH1 screwdriver	Allen key, 2.5 mm (7/64")	PH1 screwdriver
Used for	Fastening of the **extender bracket** to the extender	Fastening of the **cable guide** to the enclosure or the rack ear	Fastening of the **rack ear** to the enclosure	Fastening of the **extender** with the bracket to the mounting slot

⚠ ***Always use the black M3x5 screws for fastening the bracket to the extender. Longer screws may damage the interior parts of the device.***

Transposition of the Cable Guides

The cage is assembled with 2 cable guides that can be moved to various locations in the enclosure for the most comfortable usage. The cable guides can be fixed to the enclosure and the rack ears as well in 10 different positions.

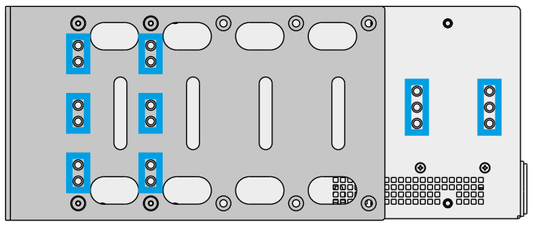
Required screw:



M3x6, PH, flat head, unpainted

⚠ ***Always fasten the cable guide with at least 4 screws per guide.***

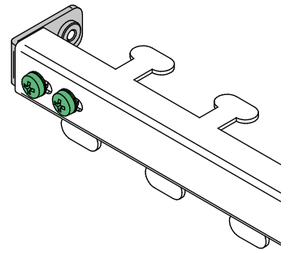
The screw holes of the enclosure (light grey) and the rack ears (dark grey) where the cable guides can be fixed are highlighted with blue on the side view figure below.



Adjusting the Length of the Cable Guide

The distances between the sides of the enclosure and the two rack ears are different. The length of the cable guide can be adjusted using the following method:

1. Loosen (**do not screw off**) the two screws on the bottom of the cable guide (highlighted with green) with a PH1 screwdriver.
2. Set up the length by moving the fastening part (highlighted with grey) to the left or right.
3. Fasten both screws.

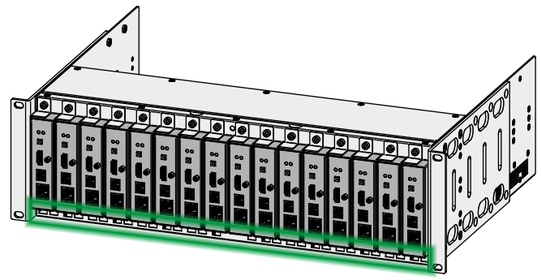


⚠ ***Always use the unpainted M3x6 screws for fastening the cable guides to the enclosure or the rack ears.***

Temperature Sensor

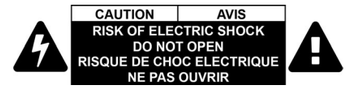
The device contains a built-in temperature sensor (highlighted with green), which continuously controls the blowers based on the outer temperature.

⚠ ***To ensure the correct device temperature control, do not cover the front panel.***



Important Safety Instructions

Please read and keep the information in the attached safety instructions supplied with the product before starting to use the device.



Safety Symbols Legend	
Symbol	**Description**
~	Alternating current
⏚	Protective conductor terminal
⚠	Caution, possibility of electric shock
⚠	Caution

Specifications

General

Compliance	CE, UKCA
EMC (Emission)	EN 55032:2015+A1:2020
EMC (Immunity)	EN 55035:2017+A11:2020
Safety	EN 62368-1:2020
RoHS	EN 63000:2018
Warranty	3 years
Operating temperature	0 to +50°C (+32 to +122°F)
Operating humidity	10% to 90%, non-condensing
Cooling	Blowers (8x)
Protection against	Short circuit / Overload

Enclosure

Rack mountable	Yes, 3U high
Material	1.5 mm steel
Mounting slots	16
Dimensions with rack ears (mm)	482.6W x 319D x 132.5H
Dimensions with rack ears (inch)	19W x 12.5D x 5.2H
Dimensions with maximum depth (mm)	482.6W x 454D x 132.5H
Dimensions with maximum depth (inch)	19W x 17.9D x 5.2H
Dimensions of the rack ear (mm)	20.3W x 235D x 132.5H
Dimensions of the rack ear (inch)	0.8W x 9.2D x 5.2H
Net weight	7.8 kg / 17.2 lbs
Weight with loaded 16 extenders	13.8 kg / 30.4 lbs

Power

Power supply	Internal
Power source	100-240 V AC 50/60 Hz
Nominal power consumption - PRC-16-205	200 W
Nominal power consumption - PRC-16-312	320 W

5V DC Power Plugs - PRC-16-205

Plug type	5V DC plug
DC output voltage	5 V
Rated current per output port	2.5 A
Total DC output	40 A

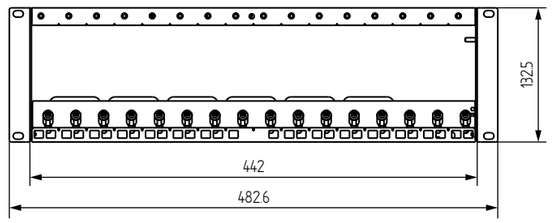
12V DC Power Plugs - PRC-16-312

Plug type	12V DC plug
DC output voltage	12 V
Rated current per output port	2.5 A
Total DC output	26 A

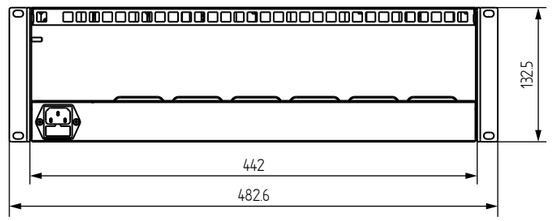
Mechanical Drawings

The dimensions are in mm.

Front View (1:6)

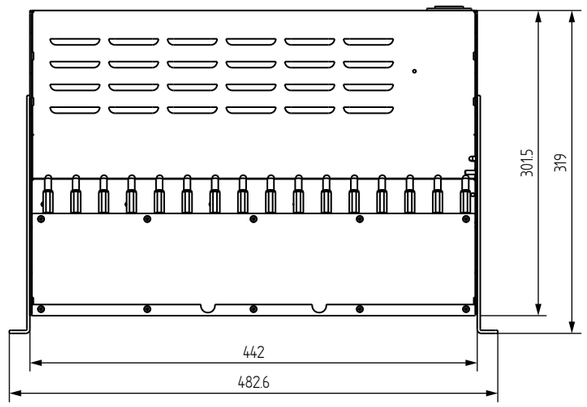


Rear View (1:6)

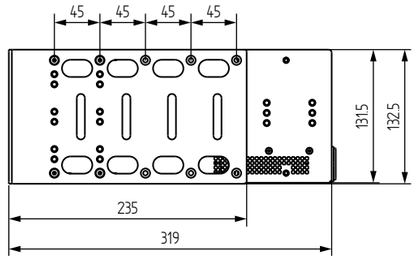


Top View with Minimum Depth (1:6)

The rack ears are fixed to the front side in the rearmost position.

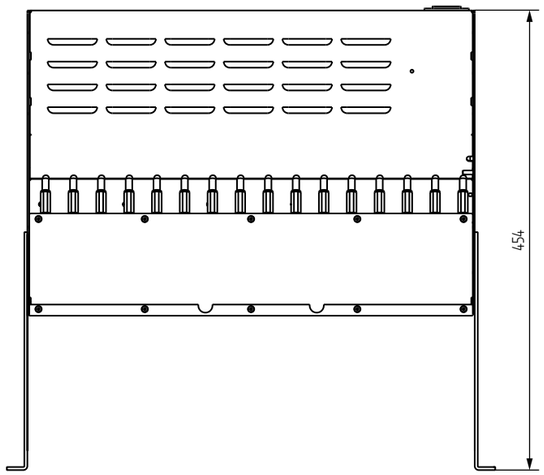


Side View (1:6)



Top View with Maximum Depth (1:6)

The rack ears are fixed to the front side in the foremost position. This configuration is the deepest one possible.



Class I Apparatus Construction

This equipment must be used with a mains power system with a protective earth connection. The third (earth) pin is a safety feature, do not bypass or disable it. The equipment should be operated only from the power source indicated on the product.

To disconnect the equipment safely from power, remove the power cord from the rear of the equipment or from the power source. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

There are no user-serviceable parts inside of the unit. Removal of the cover will expose dangerous voltages. To avoid personal injury, do not remove the cover. Do not operate the unit without the cover installed.

The appliance must be safely connected to multimedia systems. Follow instructions described in this manual.

Replacing the AC fuse

Unplug the AC power cord from the device. Locate the AC fuse on the rear panel. Replace only the AC fuse as indicated on the rear panel. Connect the power cord to the switcher and to the AC power source. Make sure the switcher is working properly.

Ventilation

For the correct ventilation and to avoid overheating, ensure enough free space around the appliance. Do not cover the appliance, leave the ventilation holes free and never block or bypass the ventilators (if there are any).

WARNING

To prevent injury, the apparatus is recommended to be securely attached to the floor/wall or mounted in accordance with the installation instructions. 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. No naked flame sources, such as lit candles, should be placed on the apparatus.

WEEE (Waste Electrical & Electronic Equipment)

Correct Disposal of This Product



This marking shown on the product or its literature, indicates that it should not be disposed of along with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.