PIXERA four GEN2 Server Manual

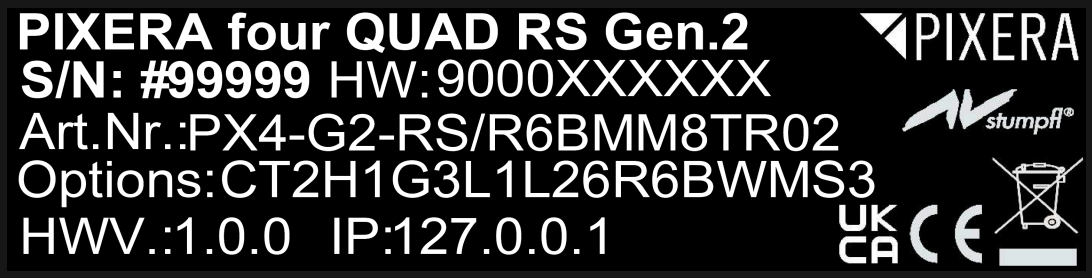
Important Information

Identifying the product and other information

This instruction manual relates to media server and media player systems from AV Stumpfl GmbH.

The model designation and serial number are located on the media server’s serial number tag.

The serial number tag is located on the back of the unit.



General information about this instruction manual

With this instruction manual, users of AV Stumpfl GmbH media servers are provided the necessary information for the safe use of their systems.

The safety instructions resulting from the legally prescribed risk analysis and assessment are an essential part of these instructions.

- IMPORTANT! Please read these instructions carefully before using your system! Store this instruction manual in a safe place for later reference.

- IMPORTANT! Due to the high number of possible configurations, it is not possible to provide specific instructions for all the individual components in this manual.

For specific questions and further support, please contact us at:

AV Stumpfl GmbH, Tel: +43 (7249) 42811, support@avstumpfl.com

Subject to change without notice. All information is provided without guarantee and liability.

Safety information

The safety information in this instruction manual can be broken down into the following categories:

- WARNING is used for hazards that could result in death or serious injuries.
- CAUTION is used for hazards that could result in minor injuries.
- IMPORTANT is used for all other cases where the potential for material damage exists or specific actions are recommended.

Target group/qualifications

The use of media server systems requires specialist AV and IT knowledge. For this reason, the use of media server systems should be limited to qualified personnel. Media server system owners and operators must ensure this via organizational measures.

The qualified personnel responsible for installation and maintenance must also be able to prevent any remaining risks in terms of health and safety with their understanding of the existing dangers.

Warning about electrical hazards

Electrical hazards can arise across a media server system's entire life cycle. These can arise not only from the media server system, but the electrical installation on site as well.

- WARNING! Dangerous situations can arise from the careless handling of the server system or faulty electrical installation.
  These can result in severe injury or death!

Intended use

The media server systems are meant exclusively for use in rooms with normal operating conditions (temperature, humidity, radiation) such as air-conditioned server rooms, offices and other rooms with similar

conditions.

Warning about foreseeable misuse

- WARNING! Dangerous situations can arise from using the server systems in unsuitable environments. These can result in severe injury or death!
- WARNING! Dangerous situations can arise from unauthorized modifications.
These can result in severe injury or death!

Installation on site

Checking for transport damages

Check the packaging and the media server system for possible damage that could have arisen during transport. If you find damage, please report it immediately to your vendor or AV Stumpfl GmbH.

- IMPORTANT! Add-on cards can sometimes become partially detached from their slots during transport. In this case please report it immediately to your vendor or AV Stumpfl GmbH.

Danger from condensation

- WARNING! A difference in temperature of 15°C between the room's temperature and the media servers can lead to condensation. This can lead to short circuits and other damage. These can lead to the risk of electrocution. Electrocution can result in severe injury or death!

Danger from incorrect posture and overexertion

- WARNING! Due to the weight and dimensions of the server system, physical danger can arise during set up and installation.

Danger from tipping

- WARNING! The server system can tip over from improper transport or installation. This is particularly true for rack systems that have a high center of gravity due to their construction.
This can result in severe injury or death!

Danger with the rackmount installation

- WARNING! Always install the servers using the provided rack rails to ensure proper support, stability, and safety. Rack Ears are NOT for mounting!
  Incorrect installation may cause damage!

Installation on site

AV Stumpfl GmbH recommends installing the server in an air-conditioned server room. Select a site that is:

- Clean, dry and free of particles in the air (except for normal dust).
- Not near sources that cause vibrations or shaking.
- Protected from strong electro-magnetic fields that arise from electrical devices.
- Provides access to a properly grounded wall socket.
- Able to be equipped with surge protection, particularly in areas subject to thunderstorms.
- Provides sufficient space for access to the power cables, as these are the primary way to disconnect the server from the power supply.
- Provides sufficient space to ensure air circulation (for cooling).

Danger from noise

- WARNING! Some server systems emit noise. Generally, this noise is produced by the system fans. In certain situations, this can lead to hearing damage. Communication near such server systems can also be impaired.

Initial installation

Notes for rack system installations

Install a line disconnector for the entire rack system.

This line disconnector must be easily accessible and have a label that states that it controls the power supply to the entire unit and not just the servers.

Danger from improper voltage supply

- WARNING! Dangerous situations can arise from improper voltages. These can lead to the risk of electrocution.
  Electrocution can result in severe injury or death!

The server system can be operated in combination with an uninterruptible power supply (UPS). In this case, please follow the instruction manual for the UPS system!

Danger from improper grounding

- WARNING! Dangerous situations can arise from improper grounding. These can lead to the risk of electrocution.
  Electrocution can result in severe injury or death!

Proper grounding is also very important for protection against EMC interference.

Danger from fire

- WARNING! Dangerous situations can arise from improper electrical installations. These can lead to the risk of fire.
  Fires can result in severe injury or death!

Operation, maintenance, modifications, cleaning and disassembly

Electrical hazards

Incidents arising from electrical hazards can occur during operation, maintenance, when making modifications, cleaning or disassembling the server.

Turn off all connected peripheral devices before opening the media server system.

NOTE: Opening the media server system will void its warranty!

- WARNING! Dangerous situations can arise if the server system is not turned off before opening the system.
  These can result in severe injury or death!

Additional comments on the subject:

- The power button will NOT disconnect the system from the source of power. The server system must be completely disconnected from the source of power.
- To do this, all power cables must be removed from the electrical outlet.
- A system may be equipped with multiple power cables. In such cases, ensure that all power cables have been unplugged.
- Do not make any modifications to the power cable and do not use any cables except those with the correct specifications. Each power supply in the system must be connected to the power source via its own cable.
- Power supplies do not have any parts that can be serviced by the user.
- Never open a power supply. Power supplies contain dangerous voltages, currents and energy sources. Send the device back for any necessary maintenance work.
- The server system can unexpectedly restart after an interruption in the supply of power.

One exception is components that can explicitly be plugged in (hot-plug) or swapped (hot-swap) during operation. Please note the following safety instructions for hot-plug power supplies.

Electrical hazards related to hot-plug power supplies

Electrical accidents can occur when exchanging hot-plug power supplies.

- WARNING! Dangerous situations can arise from the careless handling of hot-plug power supplies.
  These can result in severe injury or death!

Avoiding data loss

- IMPORTANT! Remember to backup your data before performing any maintenance or any other similar work inside your media server system.
  Check to ensure that your data restoration system works properly.

Disassembly and assembly of the housing

Should you need to remove the media server system's housing for maintenance work or any similar work inside the system, make sure to store all screws and fastenings in a safe place.

NOTE: Opening the media server system will void its warranty!

Once completed your work on the media server system, reassemble the housing using the original screws and fasteners.

IMPORTANT! Operating the system without its case can lead to damage for the system components.

Reattach the case as follows:

1. First, ensure that you have not left any tools or other parts in the system!

2. Check whether all cables, add-on cards and other components are correctly configured and attached.

3. Re-mount the panels onto the product's frame!

Danger from sharp corners and edges

- CAUTION! Despite careful selection of the components, sharp corners and edges can occur on the sheet metal housing. Plastic parts can also break during assembly or disassembly and leave sharp corners and edges.
  Injuries can be the result.
- Work with care and avoid sharp corners and edges.
- Wear protective gloves especially when working on the housing and when installing rack systems!

Danger of pinching

- CAUTION! Moving parts can pinch fingers. Injuries can result!

Danger from hot components

- WARNING! During operation, the processor and heat sink can get very hot. Burns can result.

Danger from moving parts

- WARNING! Server systems contain moving parts, such as rotating fan blades.
  Contact with such components can cause injury.

Danger from batteries

- WARNING! A danger of explosion and corrosion can arise from improper battery replacements.

Hazardous substances can be leaked.
Improper use can result in serious injury.

Preventing damage caused by a lack of ESD measures

- IMPORTANT! Electrostatic discharge can damage electronic components, circuit boards and other components.

Perform all work at an ESD workstation!

If such a workspace is not available, you can achieve a degree of protection against electrostatic discharge by wearing an anti-static wristband. You can use these to keep you grounded by attaching the clip to any unpainted metal part of your computer case.

Always handle circuit boards with utmost caution. They are extremely sensitive to electrostatic discharge. Hold circuit boards by the edges.

After removing the circuit board from its protective case or the server, place it right side up on a grounded, fully discharged surface. We recommend the use of a conductive foam pad and not the board's protective case.

Never drag the board across a surface.

Use gloves when working with sensitive components.

Preventing damage due to improper cooling and a lack of air flow

- IMPORTANT! Make sure that all cooling fins of the heat sink and/or the ventilation slots are not covered.

Route all cables carefully to avoid disturbances in the air flow and avoid cooling problems.

To ensure proper cooling and air flow, only operate the system with its case fully assembled.

Preventing damage caused by unsuitable cleaning agents

- IMPORTANT! Only use suitable cleaning agents.

A microfiber cloth is suitable for external cleaning.

Compressed air may be used to clean the inside of the server system. Please ensure that the air is applied

gently and from a sufficient distance, as the components can otherwise be damaged.

Vacuum cleaners are not suitable for cleaning the inside of the media server system.

Preventing damage caused by unsuitable external devices

- Warning! USB hubs with an external power supply are not recommended and can lead to issues.

- IMPORTANT! During a live production as well as during a show, changing peripheral devices can have a negative impact on the stability and performance of the existing hardware.

Instructions for disposal

The media server system and batteries must be properly disposed of as electrical waste at the end of their use. The disposal of electrical and electronic equipment is regulated by law. Please observe all local regulations. Disposal via household waste or ordinary industrial waste is not permitted.

You are responsible for deleting all data on the device, including confidential and personal data, before you hand it over for recycling.

Many of the materials are reusable. By following this notice, you make an important contribution to protecting the environment.

Specifications

To ensure proper operation, make sure that the following operating conditions are met for the media server.

- IMPORTANT! When you receive your media server, place it in the environment where you will install it. Leave the server in its shipping crate at its final destination for 12 hours and do not connect it to the power supply! This resting period prevents thermal shock and condensation.

Ambient temperature

An ambient temperature range of 21°C to 23°C is optimal for server reliability. This temperature range allows the recommended relative humidity level to be maintained quite easily. The maximum admissible temperature range is between 10°C and 30°C. Please note that high temperatures have a negative effect on the components' life cycle.

Relative humidity

Ambient relative humidity levels between 45% and 50% are the most suitable for data processing operations.

- Prevent corrosion
- Provide an operating time buffer in the event of environmental control system failure.
- Help avoid failures caused by the intermittent interference from static discharges that occur when relative humidity is too low.

The maximum admissible relative humidity range is between 20% and 80% (noncondensing).

Airflow considerations

- Ensure that ventilation openings, such as cabinet doors, for both the inlet and exhaust of the server provide a minimum open area equal to the server's open areas.
- Take care to prevent recirculation of exhaust air within a rack or cabinet.
- Manage cables to minimize interfering with the server exhaust vent.

In case the lighting effect device is equipped with fans:

- Ensure unobstructed airflow through the chassis. Ensure that air enters at the front of the server housing. Ensure that air exits at the openings designated for this purpose:
  PXfour GEN2: back

Scope of delivery

2x Power Cable

1x Dust Filter(spare)

Warranty

We offer 2 years warranty on PIXERA media servers. An additional warranty of total 3, 4 or 5 years is available on request.

IMPORTANT! Please note that opening or modifying the media server voids its warranty.

Environmental specifications – operating

Temperature (altitude less than 1000m, no direct sunlight)	10°C to 30°C
Maximum Temperature Gradation	10°C per hour
Temperature De-Rating (altitude more than 1000m)	Reduce max. temp. by 1°C per 300m
Maximum Altitude	3000m
Relative Humidity (noncondensing)	20%RH to 80%RH
Maximum Humidity Gradation	10%RH per hour

Environmental specifications – storage

Temperature (no direct sunlight)	-30°C to 55°C
Maximum Temperature Gradation	20°C per hour
Relative Humidity (noncondensing)	5%RH to 95%RH
Maximum Humidity Gradation	10%RH per hour

Power supply

	PX4 Gen2
Power Supply	100-240VAC, 50-60Hz
Power Consumption Peak	1200W

Power Consumption Average with High Load * (Standard Config)	850W
Redundant Power Supply Hot-Plug	Yes

* Power Consumption Average with High Load = Tested with very high CPU, GPU and storage workload.

Heat dissipation

	PX4
Heat Dissipation Peak	4094BTU/h
Heat Dissipation Average with High Load * (Standard Config)	2390BTU/h

* Heat Dissipation Average with High Load = Tested with very high CPU, GPU and storage workload

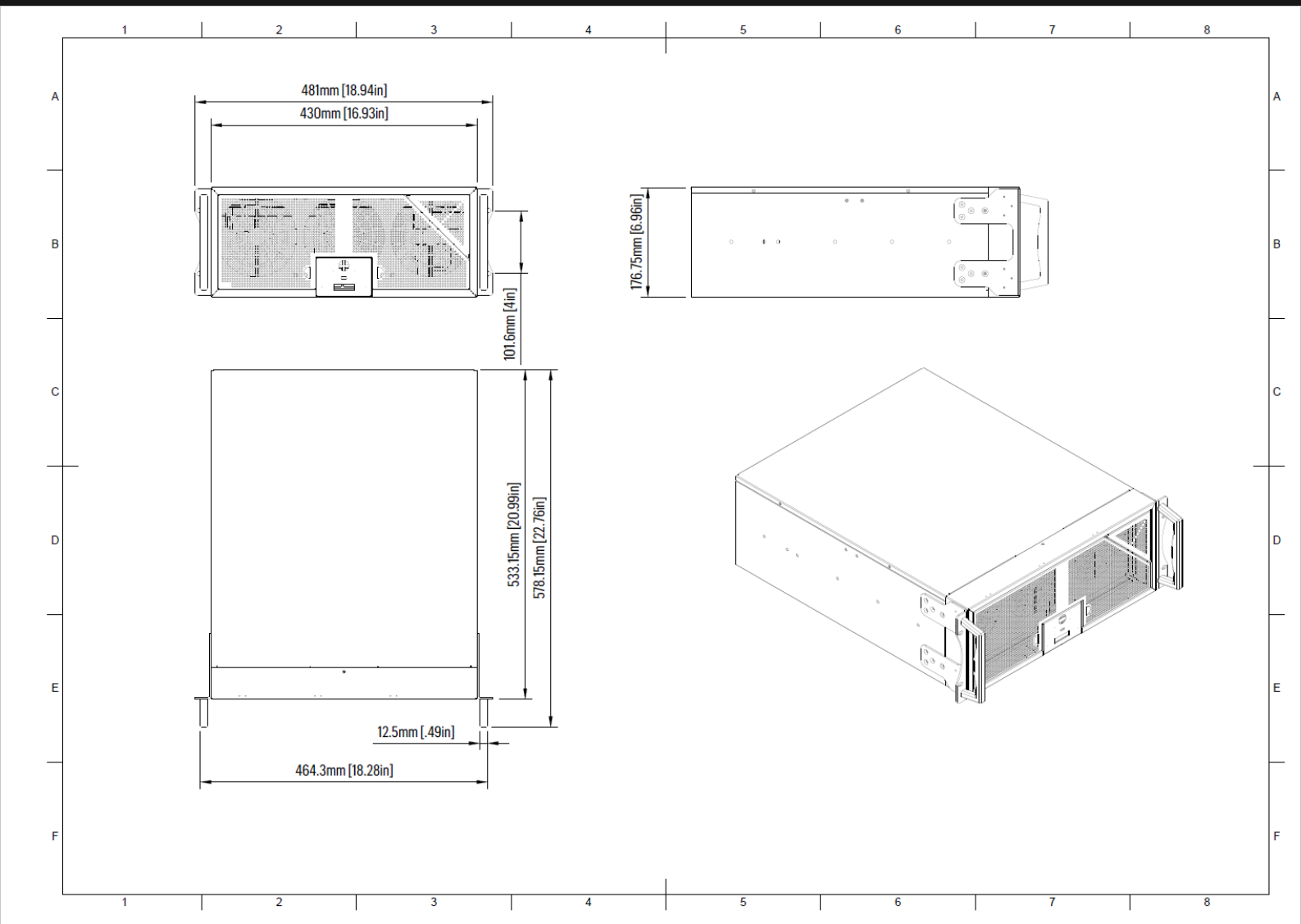
Physical

	PX4
Case Dimension (WxDxH)	533 x 430 x 176mm
Max. Product Dimension (WxDxH)*	578 x 481 x 176mm
Product Weight	19,6kg
Shipping Dimension	680 x 585 x 286,7mm
Shipping Weight	20,0kg

Dimensions

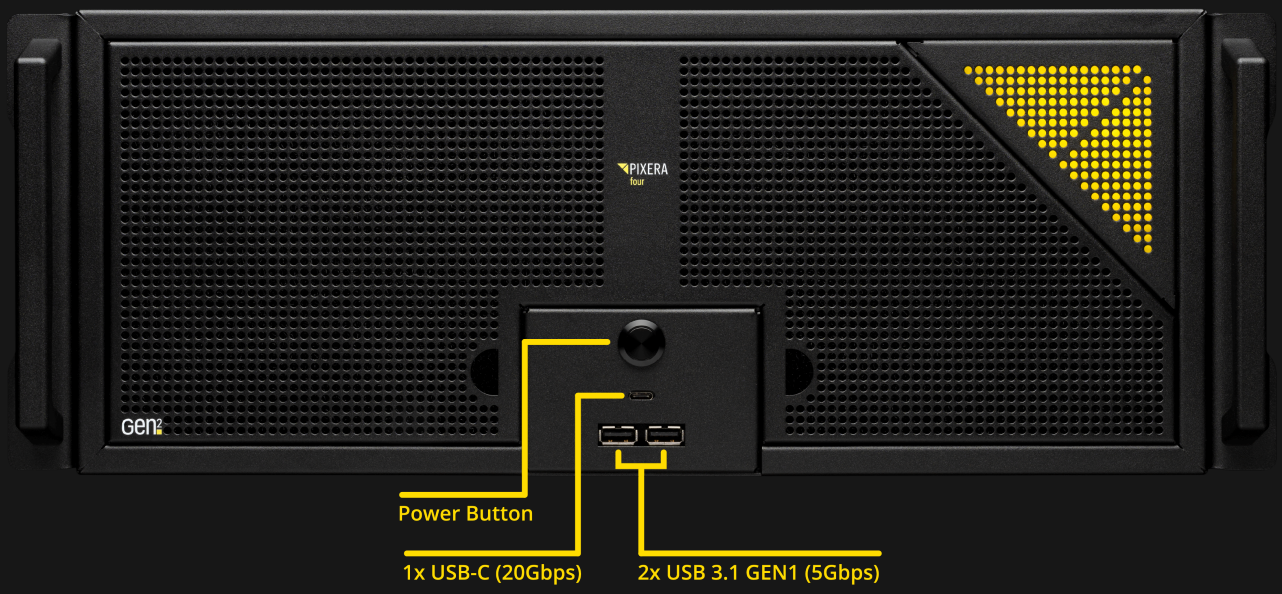
IMPORTANT! Please note that due to the production process there may be deviations in the dimensions. For exact dimensions please use the measures of the actual device.

Dimensions PX4 GEN2



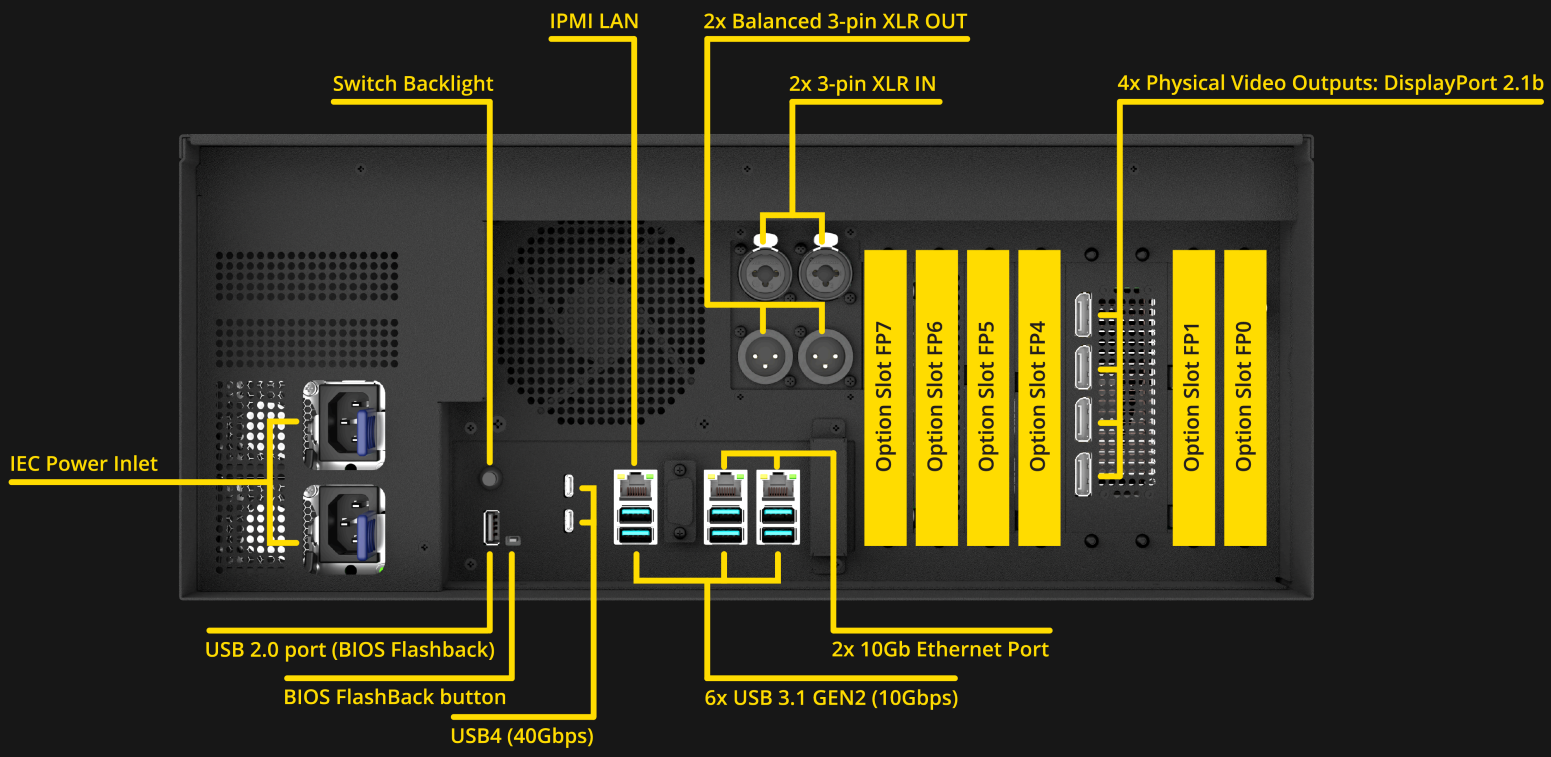
Front view

Front view PX4 GEN2



Rear view

Rear view PX4 GEN2



Description rear views PX4

- IPMI LAN:

The IP address of the IPMI LAN port is similar to the IP address of LAN2, but instead of 10.31.x.x. the address is 10.41.x.x. For example, if LAN2 has the address 10.31.2.3, the IPMI LAN port has the address 10.41.2.3.

- 2x 10Gb Ethernet Port:

Full-duplex speeds of 100 Mbit/s, 1 Gbit/s, 2,5 Gbit/s and 10 Gbit/s are supported, 10Mbps and below are not supported!
Viewed from the back of the server, the left port is named LAN1 in the operating system and is configured that it obtains its address via DHCP.
The port on the right is named LAN2 and is configured with a fixed IP address which is printed on the serial number label.
Please note that these are the IP addresses of the delivery state of the media server. All IP addresses can of course be changed individually.

- Switch Backlight: Controls the lighting of the LEDs on the rear of the server

- IEC Power Inlet: A connector that allows the device to be powered from two separate AC source. If one power source fails, the other can continue supplying power, ensuring uninterrupted operation.

Options PX4

Standard Configuration:

Standard Configuration PX4	CPU
Option Name	AMD RYZEN Y101 256GB RAM
Code	PXU-Y101
Server Grade Hardware Components	Yes
CPU Type	AMD RYZEN
CPU Performance Index	101
CPU # of Cores / # of Threads	24/48
CPU Min/Max Frequency	4,2/5,4GHz
RAM	256GB
RAM Channels used(max.8)	8
ECC RAM	Yes

Storage options

Please note that on PX4 Gen2 the Operating System is stored on a separate drive, so the capacity of the data SSD is fully available.

The maximum constant physical read rate of this drive is 10 GB/s. (Peak values can be higher.)

NVMe-SSD option: 14,56TB (20GB/s)

NVMe storage for high data rate applications.

- Option Code: PXU-M16T-R0-4

The maximum constant physical read rate of this drive is 20GB/s. (Peak values can be higher.)

NVMe-SSD option: 29,1TB (20GB/s)

NVMe storage for high data rate applications.

- Option Code: PXU-M32T-R0-4

The maximum constant physical read rate of this drive is 20GB/s. (Peak values can be higher.)

NVMe-SSD option: 58,2TB (20GB/s)

NVMe storage for high data rate applications.

- Option Code: PXU-U61T-R0-4

Option Slot PX4: FP7

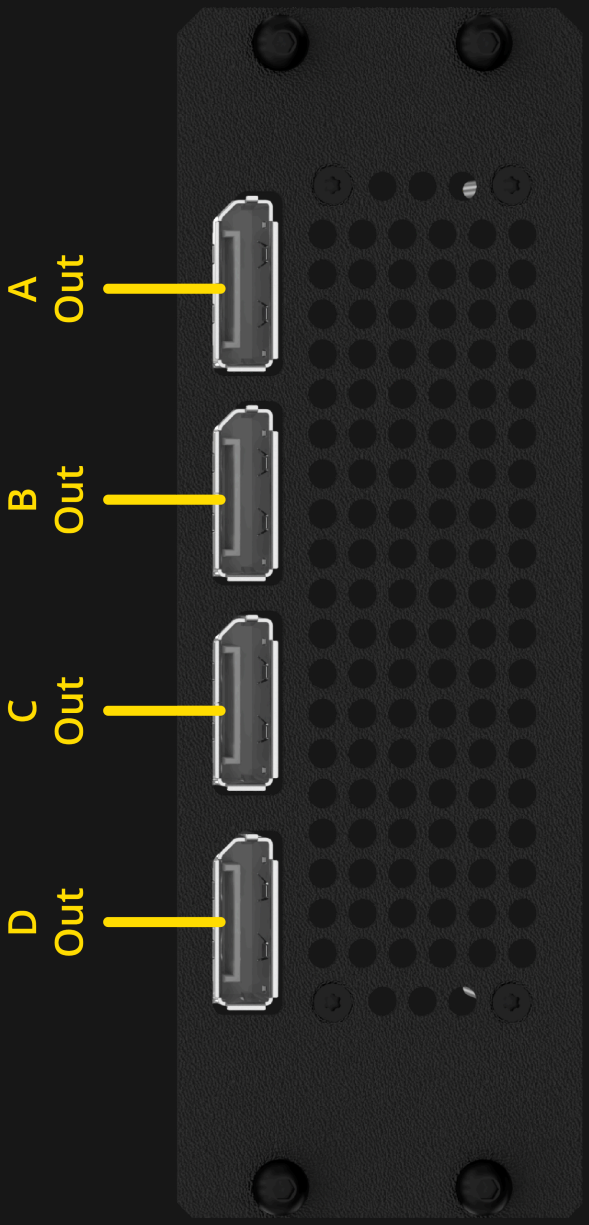
Please note that not all of the options listed above can be combined!

Video Outputs

Video Outputs are always supplied with the Server.

- Option Code: PXO-R6BW

Slot PX4 GEN2: FP2, FP3 (Standard, cannot be changed)



Port description

- Video output standard: DP2.1b
- Video output resolution (max.): 5120x2880 @60Hz
- EDID management: Yes

Output option: GUI Output

Quad channel GUI output.

- Option Code: PXO-G3

Option Slot PX4 GEN2: FP1

Link to the description:

PXO-G3

Output option: Framelock and Genlock

Framelock and genlock input and outputs.

- Option Code: PXO-S3

Option Slot PX4 GEN2: FP0 (cannot be changed)

Link to the description:

PXO-S3

Network Card option: L1x4

Quad channel 1GbE Network Card

- Option Code: PXO-L1x4

Option Slot PX4 GEN2: FP7, FP6

Link to the description:

PXO-L1x4

Network Card option: L26x2

Dual channel 25GbE Network Card

- Option Code: PXO-L26x2

Option Slot PX4 GEN2: FP7, FP6

Link to the description:

PXO-LX26x2

Live input option: IH2

Dual channel HDMI 2.0b input.

- Option Code: PXO-IH2

Option Slot PX4 GEN2: FP7, FP6, FP5, FP4

Link to the description:

PXO-IH2

Live input option: CT2H1

Mixed 12G SDI and HDMI 2.0b capture and playout card

- Option Code: PXO-CT2H1

Option Slot PX4 GEN2: FP7, FP6, FP5, FP4

Link to the description:

PXO-CT2H1

Live input option: CT4

12G SDI capture and playout card

- Option Code: PXO-CT4

Option Slot PX4 GEN2: FP7, FP6, FP5, FP4

Link to the description:

PXO-CT4

Live input option: CT2

12G SDI capture and playout card

- Option Code: PXO-CT2

Option Slot PX4 GEN2: FP7, FP6, FP5, FP4

Link to the description:

PXO-CT2

Live input option: IH4

Quad channel HDMI 2.1 input.

- Option Code: PXO-IH4

Option Slot PX4 GEN2: FP7, FP6, FP5, FP4

Link to the description:

PXO-IH4

Audio output option: A1

RME HDSPe AIO sound interface.

- Option Code: PXO-A1

Option Slot PX4 GEN2: FP7, FP6, FP5, FP4

Link to the description:

PXO-A1

(More details see RME manual: http://www.rme-audio.de/download/hdspeaes_e.pdf)

Mechanical installation

This section provides information on installing the media servers.

There are a variety of rack units on the market, which may mean that the assembly procedure will differ slightly from the instructions provided. You should also refer to the installation instructions that came with the rack unit you are using.

- CAUTION! Never mount the media server solely on the 19" mounting bracket attached to the server. This will break the 19" mounting bracket and damage the server, the rack and may cause injury.

- CAUTION! Do not pick up the server with the front handles. They are designed to pull the chassis from a rack only. This may damage the server and may cause injury.

Precautions

- Ensure that the leveling jacks on the underside of the rack are fully extended to the floor, with the entire weight of the rack resting on them.
- For single rack mounting, stabilizers must be attached to the rack.

- For multiple racking systems, the racks must be coupled together.
- Always make sure that the rack is stable before pulling a component out of the rack.
- You may only extend one component at a time - the simultaneous extension of two or more components can cause the rack to become unstable.
- The units must be installed in a rack in such a way that no dangerous condition arises due to uneven mechanical loading.
- Install the heaviest server components on the bottom of the rack first, and then work your way up.
- Use an uninterruptible power supply (UPS) to protect the server from power surges and voltage spikes and keep your system up and running in the event of a power failure.

Mounting the Rail Kit on PX4

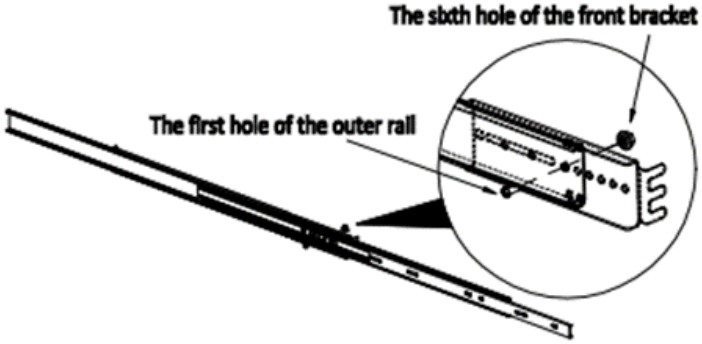
WARNING! Always install the servers using the provided rack rails to ensure proper support, stability, and safety. Rack Ears are NOT for mounting!
Incorrect installation may cause damage!

Note: These rails fit into a rack with a depth between 550mm and 1250mm.

King Slide — 3A68-508_2U&4U Front Bracket Assembly Instruction

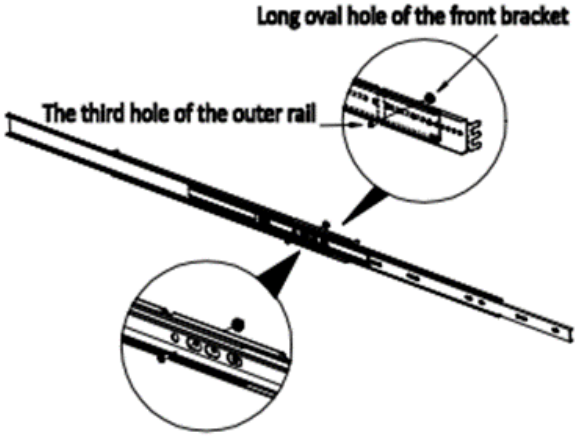
1. Pull out the inner and intermediate rail until they are securely "locked".

2. Place the front bracket on the outer rail.
Set the first hole of the outer rail to the sixth hole of the bracket and screwed the bracket to the rail.



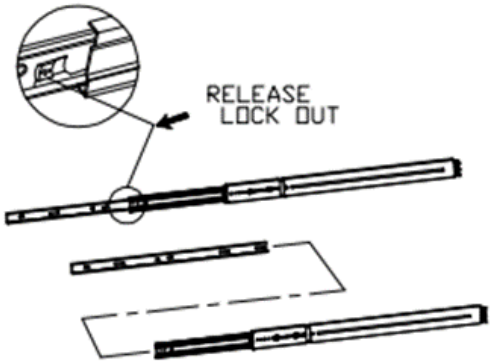
3. Press the release button on the intermediate rail, adjust the intermediate rail a bit so that the holes are visible and easier for screwing.

4. Secure the long oval hole of the front bracket to the third hole of the outer rail.

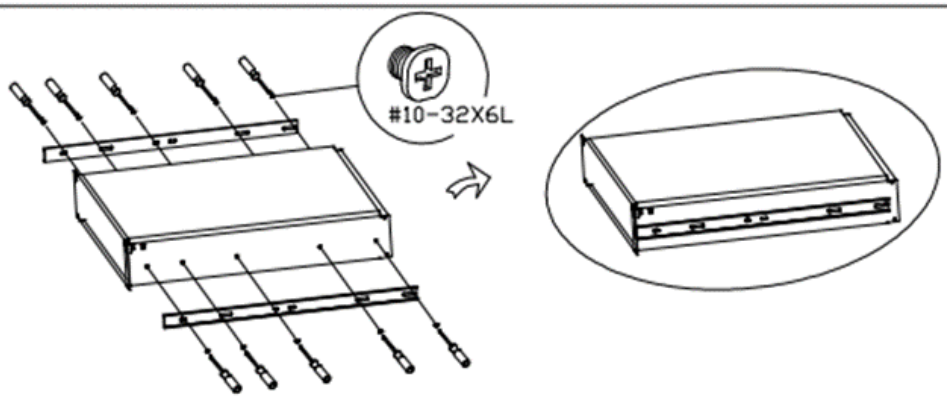


3A68-508_2U&4U Installation Instruction

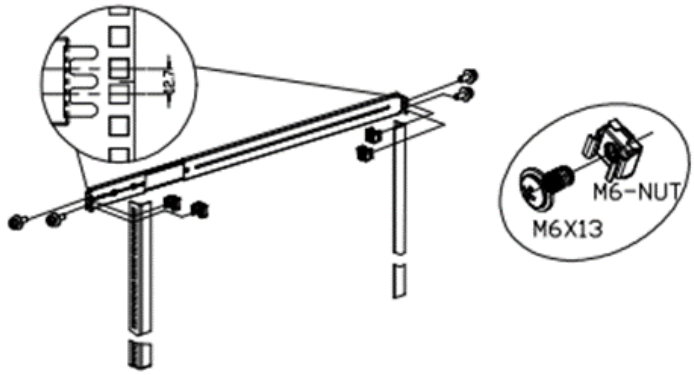
1).Release and detatch the inner member from the slide



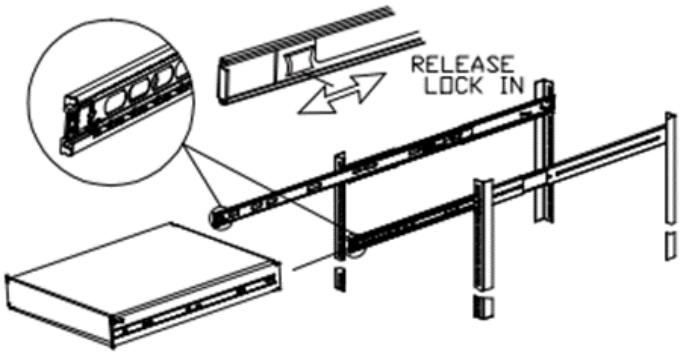
2).Attach the unit to the inner member

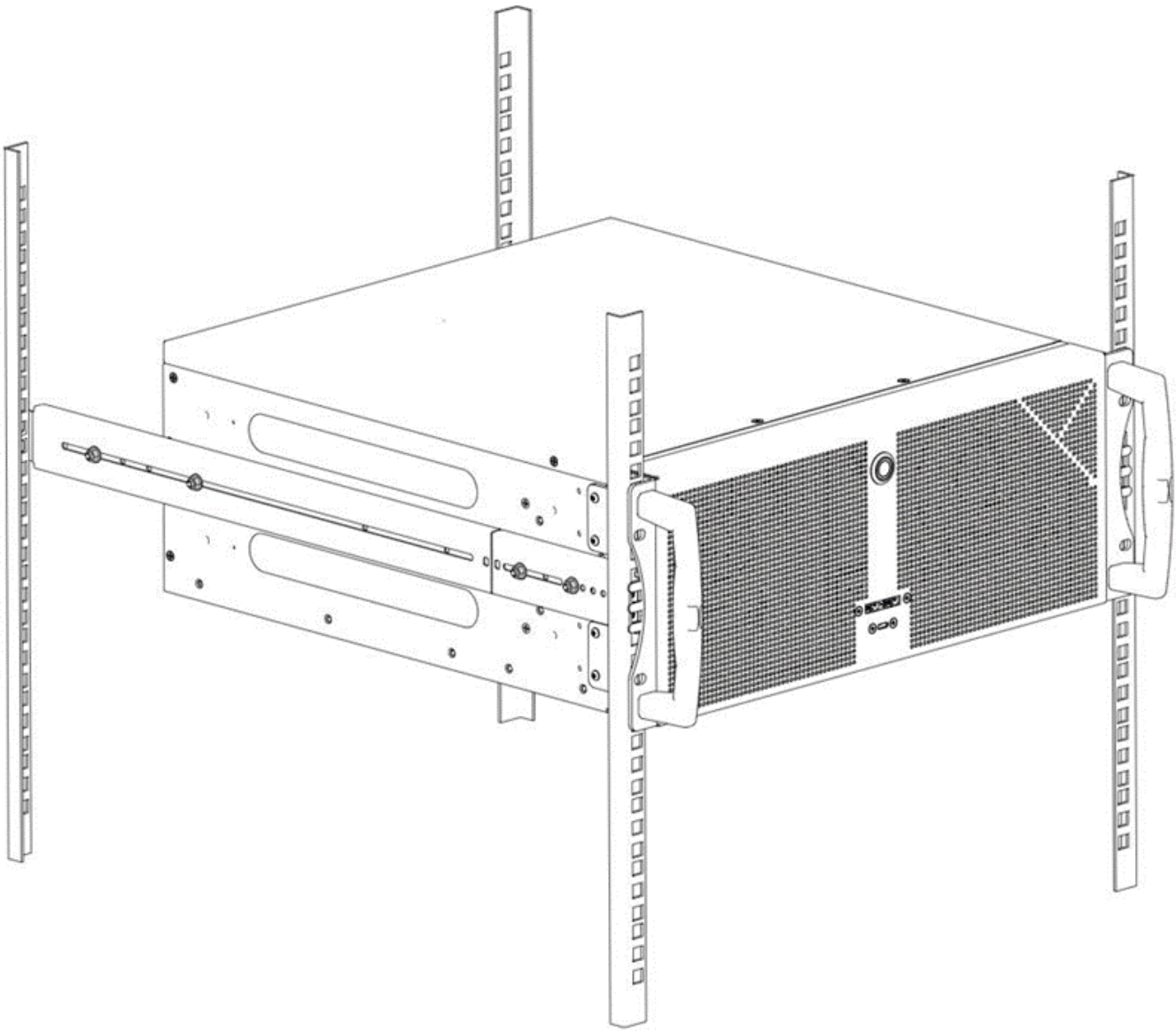


3).Fix the outer member/bracket assembly to the frame



4).(1)CAUTION! Verify ball bearing retainer is locked forward.
(2)Horizontally install system half way into slide rail.
(3)Slide release tab and push system into rack.





Starting up the media server

Plug in all cables first!

Do not connect or disconnect any cables during operation. This can cause damage to the device.

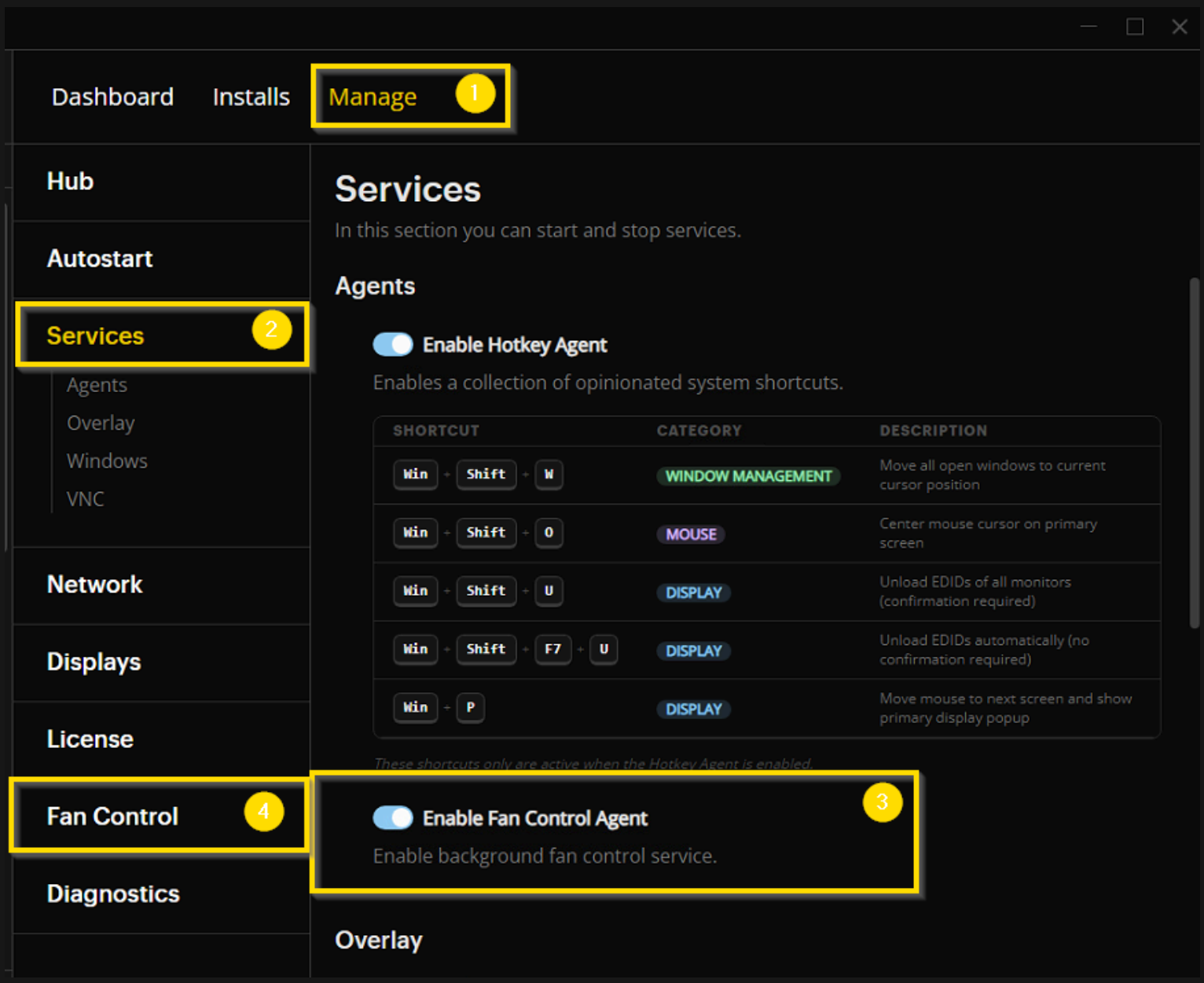
Press the power switch to turn the device on and off. The power button does not disconnect the server from the mains voltage! To completely disconnect it from the mains voltage, unplug the power plug(s) from all power supply inputs.

Turn on the server when operating conditions are within its operating range (see specifications). If the unit is operated outside this operating environment, the server may be damaged.

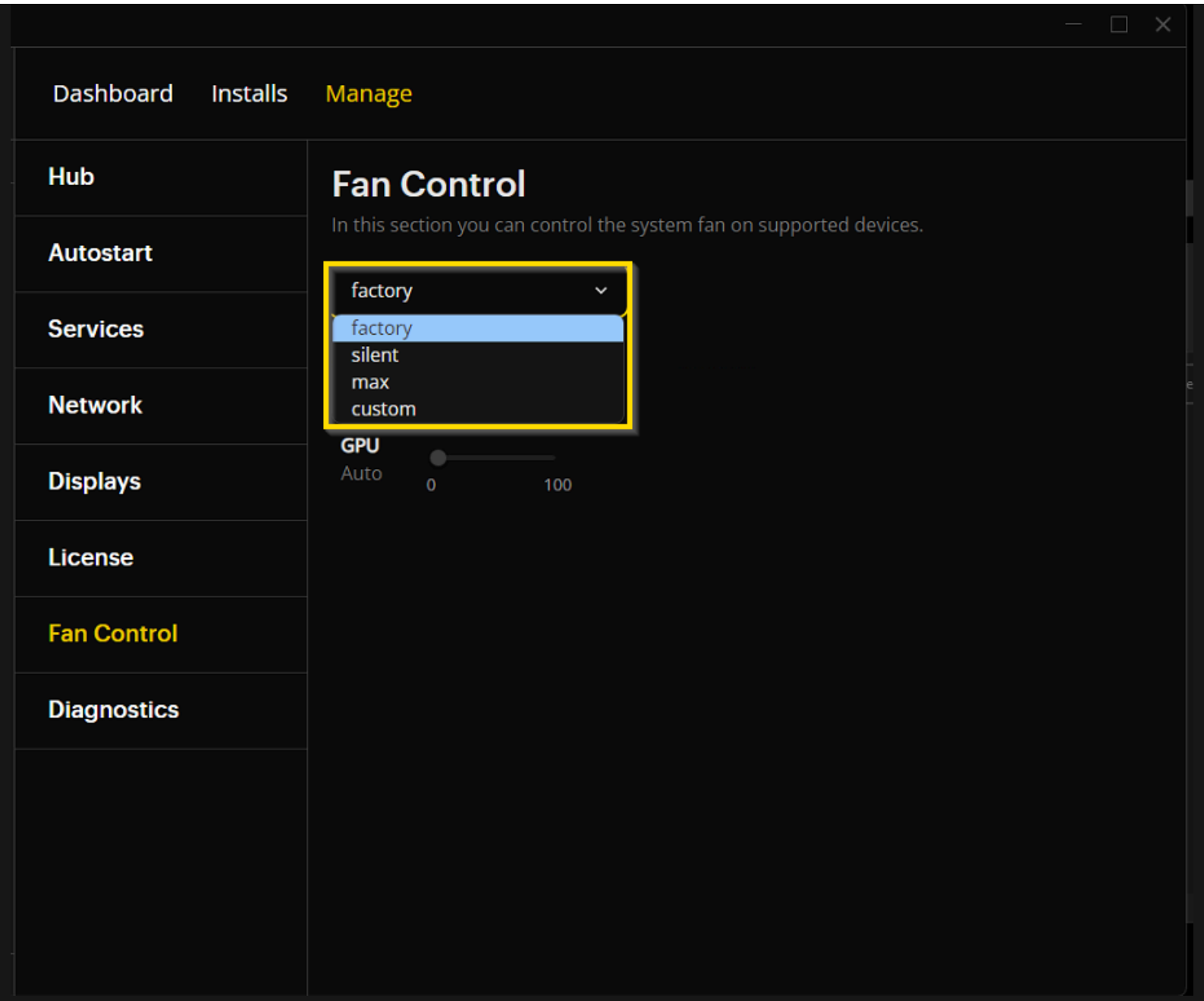
FAN Control via PIXERA hub

Set the fans to the recommended default settings.

1. Open PIXERA hub - choose Manage/Services and “Enable Fan Control Agent”.



2. Press on FAN Control and check if “factory” preset is activated.



23. April 2026 | R.F

Was this article helpful?

The PIXERA knowledge base is the gateway to becoming a professional in AV Stumpfl's PIXERA ecosystem.

This Help Center covers different workflows and features in PIXERA. We are still in the process of expanding the available documentation. Although we try to maintain and add as much as possible, unfortunately not every feature is documented as of now. If there are certain topics missing, please send a request via the contact-form.

Contact us