PxV206 – 2U Platform

User's Manual

Version 1.01

Kontron Embedded Computers GmbH

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Introduction

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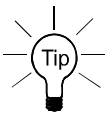
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Symbols used in this Manual

Symbol	Meaning
	This symbol indicates the danger of injury to the user or the risk of damage to the product if the corresponding warning notices are not observed.
	This symbol indicates that the product or parts thereof may be damaged if the corresponding warning notices are not observed.
	This symbol indicates general information about the product and the user manual.
	This symbol precedes helpful hints and tips for daily use.

Important Instructions

This chapter contains instructions which must be observed when using your PxV206 – 2U Platform.

The manufacturers instructions provide useful information on your PxV206.

Note on the Guarantee

Due to their limited service life, parts which by their nature are subject to a particularly high degree of wear (wearing parts) are excluded from the guarantee beyond that provided by law. This applies, for example, batteries.

Exclusion of Accident Liability Obligation

Kontron Embedded Computers shall be exempted from the statutory accident liability obligation if the user fails to observe the safety instructions.

Liability Limitation / Exemption from the Guarantee Obligation

In the event of damage to the device caused by failure to observe the hints in this manual and eventually on the device (especially the safety instruction), Kontron Embedded Computers shall not be required to honor the guarantee even during the guarantee period and shall be exempted from the statutory accident liability obligation.



Safety Instructions

Please read this section carefully and observe the instructions for your own safety and correct use of the device.

The chapter also contains information on approval and interference suppression of your PxV206.

Observe the warnings and instructions on the device and in the manual.

The PxV206 is built and tested by Kontron Embedded Computers in accordance with EN60950/VDE0805 and left the works in a perfectly safe condition.

In order to maintain this condition and ensure safe operation, the user must observe the instructions and warnings contained in this manual.

- ❑ The device must be used in accordance with the instructions for use.
- ❑ The electrical installations in the room must correspond to the requirements of the respective regulations.
- ❑ Take care that there are no cables, particularly mains cables, in areas where persons can trip over them.
- ❑ Do not use a mains connection in sockets shared by a number of other power consumers. Do not use an extension cable.
- ❑ Only use the mains cable supplied.
- ❑ The unit is complete disconnected from the power source, only when the power cord is disconnected from the power source. Therefore the power cord and its connectors must always remain easily accessible.
- ❑ Do not set up the device in the proximity of heat sources or in a damp location. Make sure the device has adequate ventilation.
- ❑ Only devices and components may be connected to the interfaces of the system which fulfil the requirements of a SELV circuit (security low voltage output) in accordance with EN60950.

- ❑ For PxV206-C only: it is not allowed to remove or to bridge the ATX-plug with the Kontron ATX-extension (a T10A fuse integrated in the 3.3V-circuit of the –48V DC-PSU).
- ❑ All plugs on the connection cables must be screwed or locked to the housing.
- ❑ The device is destined to be used in horizontal position only.
- ❑ It must be assumed that safe operation is no longer possible,
  – if the device has visible damage or
  – if the device no longer functions.
  In these cases the device must be shut down and secured against unintentional operation.
- ❑ Repairs may only be carried out by a person authorised by Kontron Embedded Computers.
- ❑ Maintenance or repair on the open device may only be carried out by qualified personnel authorised by Kontron Embedded Computers familiar with the associated dangers.
- ❑ The device may only be opened for the installation and removal of extension cards in accordance with the description in this manual.
- ❑ If extensions are made to the device the legal stipulations and the device specifications must be observed.
- ❑ The device must be switched off before installing the extension cards.
- ❑ Only original accessories approved by Kontron Embedded Computers may be used.

For DC powered systems

- ❑ The DC-input should not exceed 60V DC and must fulfil SELV Requirements of EN60950 standard.
- ❑ The AC/DC-supplies don't fulfil the requirements for centralised DC-Power systems as required for the use in USA. That kind of units are not allowed to be used as a stand-alone computer.

Operation of Laser Source Devices



Fig. 1: Warning about laser radiation

The CD ROM drives contain light-emitting diodes (classified in accordance with IEC 825-1:1993: LASER CLASS 1) and, therefore, must not be opened.
If the enclosure of such a drive is opened, invisible laser radiation is emitted. Do not allow yourself to be exposed to this radiation.

The laser system meets the code of Federal Regulations 21 CFR,1040 for the USA and Canadian Radiation Emitting Devices Act, REDR C 1370.



Electrostatic Discharge (ESD)

A sudden discharge of electrostatic electricity can destroy static-sensitive devices or micro-circuitry. Proper packaging and grounding techniques are necessary precautions to prevent damage. Always take the following precautions:

1. Transport boards in static-safe containers such as boxes or bags.
2. Keep electrostatic sensitive parts in their containers until they arrive at static-free stations.
3. Always be properly grounded when touching a sensitive board, component, or assembly.
4. Store electrostatic-sensitive boards in protective packaging or on conductive foam.

Grounding Methods

Guard against electrostatic damage at workstations by following these steps:

1. Cover workstations with approved anti-static material. Provide a wrist strap connected to a work surface and properly grounded tools and equipment.
2. Use anti-static mats, heel straps, or air ionizes to give added protection.
3. Handle electrostatic-sensitive components, boards, and assemblies by the case or the PCB edge.
4. Avoid contact with pins, leads, or circuitry.
5. Turn off power and input signals before inserting and removing connectors or test equipment.
6. Keep work area free of non-conductive materials such as ordinary plastic assembly aids and Styrofoam.
7. Use field service tools, such as cutters, screwdrivers, and vacuums that are conductive.
8. Always place drives and boards PCB-assembly-side down on the foam.

Instructions for the Lithium Battery

The SBC board is equipped with a Lithium battery. For the replacing of this battery please observe the instructions described in the SBC board User manual. The SBC board User manual is included in the delivery.



Warning

Danger of explosion when replacing with wrong type of battery.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in residential area is likely to cause harmful interference in witch case the user will be required to correct the interference at his own expense.

Electromagnetic Compatibility

This product has been designed for industrial, commercial and office use, including small business use. The most recent version of the EMC guidelines (EMC Rules 89/336/EWG) and/or the German EMC laws apply. If the user modifies and/or adds to the equipment (e.g. installation of add-on cards), the prerequisites for the CE conformity declaration (safety requirements) may no longer apply.

Scope of Delivery

- ❑ PxV206 – 2U Platform (with a SBC board)
- ❑ PxV206 – 2U Platform - User manual
- ❑ SBC board - User manual
- ❑ CD-ROM with drivers for the installation of the SBC card
- ❑ Key for drive door lock
- ❑ Power cord (only for AC power supply units)
- ❑ Rubber feet and screws
- ❑ Y-adapter cable (PS/2 Keyboard&Mouse)

Type Labels and Product Identification

The type label of your PxV206 – 2U Platform is attached to the inside of the drive door.

Type label	**Product identification**
PxV206-A	PxV206 – 2U Platform with AC power supply unit
PxV206-B	PxV206 – 2U Platform with AC power supply unit
PxV206-C	PxV206 – 2U Platform with DC power supply unit
PxV206-D	PxV206 – 2U Platform with AC redundant power supply unit

Product Description

The PxV206 is a 2U (19") system, designed for high-performance applications. The PxV206 - 2U Platform is available in rackmount or desktop options. It includes butterfly-backplane slots with 32-bit PCI design.

Your system can accommodate optionally a Pentium III®/Celeron®- or a Pentium4®/Celeron®-CPU compatible Single Board Computer (SBC).

The system is equipped with two front accessible drive bays (one 3.5” and one 5.25” bay) and an internal 3.5” hard disk (IDE). The hard disk is located on the bottom of the unit, between the power supply unit and floppy-drive.

The unit incorporates E-PAC® technology to simplify the installation and the removal of its components (HDD, FDD or CD-ROM-drive). The front side cooling fans are mounted into E-PAC® .This advanced technology is also extreme resistant to shock and vibrations and a definite air stream for the system cooling.

The air filter mat located in the front of the unit is changeable while the system is operating.

The operating elements consist of the PSU-“Power switch” and a “Reset-button”. The LED indicators “Power-LED” and “HDD-LED” indicate the On/Off state of the system, respectively the HDD-activity.



Fig 2: PxV206 – 2U Platform

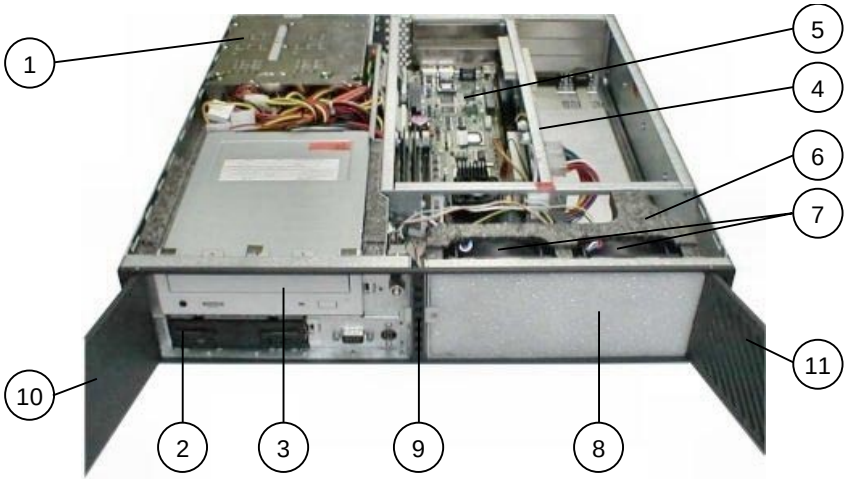


Fig 3: PxV206 – 2U Platform-opened

1	**P**ower **S**upply **U**nit (PSU)	6	E-PAC®
2	Floppy-drive (3.5”)	7	Front cooling fans
3	CD-ROM-drive (5.25”)	8	Air filter mat
4	Backplane	9	LED panel
5	SBC board	10	Drive door
		11	Fan door

Front Panel

The front panel of PxV206 2U Platform is designed in to versions:

- ❑ Rackmount
- ❑ Desktop

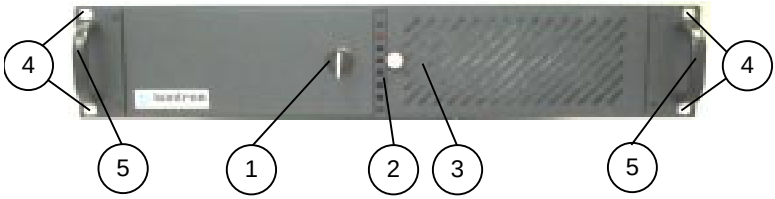


Fig. 4: Front panel (rackmount version) with closed doors

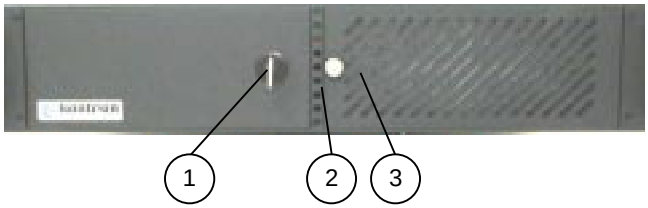


Fig. 4a: Front panel (desktop version) with closed doors

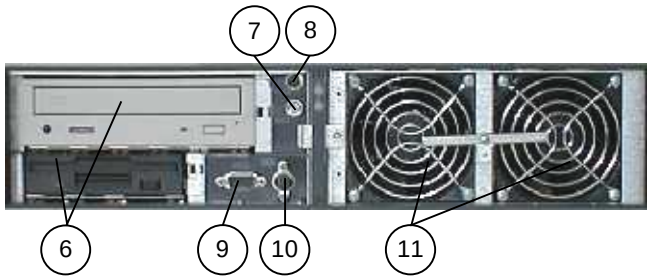


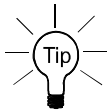
Fig. 4b: Front panel (rackmout and desktop version) with opened doors

1 Drives door with lock
2 Panel section with LEDs
3 Fan door with knurled screw
4 Holes for in rack mount
5 Handles
6 CD-ROM- and Floppy drive
7 Reset button
8 Power switch
9 Serial port – COM1 (RS 232)
10 PS/2 Keyboard & Mouse connector
11 Front cooling fans

The COM1 interface, the PS/2 keyboard and mouse connector, the operating elements (power switch and reset button) and the Floppy- and CD-ROM-drives are located at the front side of the PxV206 – 2U Platform, behind the drive door.

Drive Door

You can protect the PxV206 – 2U Platform from unauthorised use by means of drive doors with a safety lock.



The key should be kept somewhere where it is not accessible to unauthorised person.



The PxV206 – 2U Platform comes equipped with one key. If the key get lost or damaged, then the drive door can only be opened by Kontron service personnel.

Serial Interface Connector COM1

This connector labelled “COM1” *(see fig.: 4b, pos. 9)*is available as a 9-pin D-SUB plug and allows you to connect serial peripheral. The interface is configured as RS232.

Combined PS/2 Mouse and Keyboard Connector

To this PS/2 connector *(see fig.: 4b, pos. 7)*, provided as a 6-pin mini DIN connector (female), you can connect:

- ❑ a PS/2 mouse (only by use of the Y adapter cable) or
- ❑ a PS/2 keyboard (without using the Y-adapter cable) or
- ❑ a PS/2 mouse and a PS/2 keyboard (only by use of the Y adapter cable)

Operating Elements

Power Switch

By operation of the „Power Switch“ *(see fig.: 4b, pos. 8)*, the system will be turned on or off. The system must be connected to corresponding power source (AC or DC).

Prerequisite for systems with redundant PSU:
The power switch of the redundant AC power supply must be switched “on”.



Even if you turn off the system with the “Power Switch”, there is still a standby-voltage of 5 V on the SBC card.

The PxV206 is not completely disconnected from the main power source by turning off the “Power Switch”.

The unit is completely disconnected from the main power source, only:

- ❑ when the power cord is disconnected either from the power source or the unit.

Or for systems with redundant PSU:

- ❑ by turning off the power on/off switch of the AC redundant PSU.

Therefore the power cord and its connectors must always remain easily accessible.

Reset Button

If your system no longer reacts, you must restart the PxV206. To do this, press the reset button *(see fig.: 4b, pos. 10)*.



When you reset, all data in the main memory are erased.

Fan Door

In front of the fans and behind the fan door are located an exchangeable air filter mat to protect your system from dust. The fan door must be always closed.

Front Panel – LEDs Status



1 System Power-LED

2 HDD-LED

Fig. 5: LED panel

LED	Front panel LEDs status dependig on				
	PSU AC/DC		PSU REDUNDANT AC		
1	System power LED (green)	ON	System power LED (green)	ON	Operating system is OK.
				OFF	Not working system
		OFF		blinking	The system is operating; some failure occurred on the redundant PSU
2	HDD Activity LED (orange)		HDD Activity LED (orange)		
3	Not used		Not used		
4	Not used		Not used		
5	Not used		Not used		
6	Not used		Not used		
7	Not used		Not used		

Rear Panel

On the rear panel are located the external serial port (COM2), the parallel port (LPT), the external interfaces of the integrated SBC board and the power supply unit.

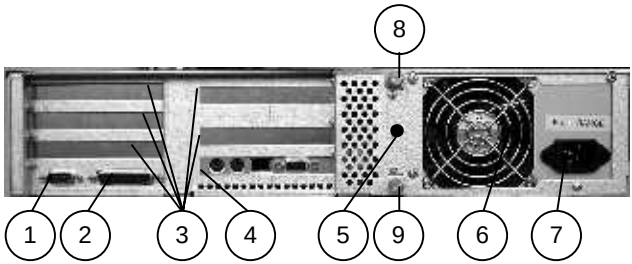


Fig. 6: Rear panel with AC-PSU

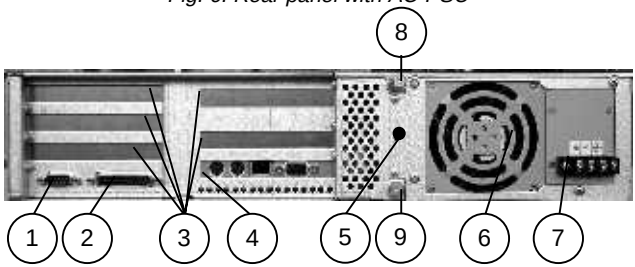


Fig. 6a: Rear panel with DC-PSU

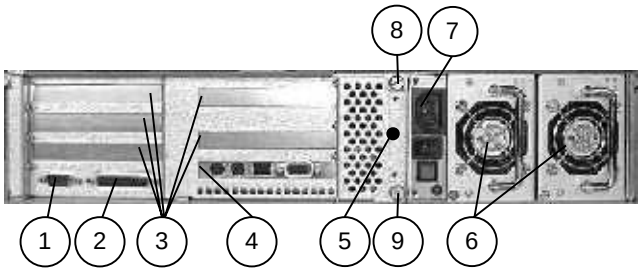


Fig. 6b: Rear panel with AC redundant-PSU

1 Serial port – COM2

2 Parallel port – LPT

3 5x free slots:
4x PCI and 1x ISA

4 1x SBC board

5 Ground stud

6 Fan of the power supply unit

7 AC or DC Power inlet of the power supply unit (according to the used PSU)

8 Cover captive knurled screw

9 Card cage captive knurled screw



The configuration respectively the number of the PxV206 – 2U Platform interfaces may vary depending on the device equipment.

Ports on the Rear Side

Parallel Interface Connector LPT1

This connector is available as a 25-pin D SUB socket. The parallel interface LPT1 supports different modes: standard parallel port, EPP and ECP.
It is used for the connection of an external printer and can also be used for other external devices, which can be connected via a parallel port.
Nonetheless, depending on the device, the manufacturers instructions must be observed and the necessary software driver installed.

Serial Interface Connector COM2

This connection labelled “COM2” is available as a 9-pin D-SUB plug and allows you to connect serial peripheral. The interface can be configured as RS232, RS422 or RS485.

SBC Board External Interfaces

The SBC board external interfaces may vary depending on the board configuration.



The configuration respectively the number of the PxV206 – 2U Platform interfaces may vary depending on the device equipment.

Power Supply Unit

Each PxV206 – 2U Platform can be equipped optionally depending on the power supply unit (PSU) with an AC–PSU, a DC–PSU or a redundant PSU.

Versions of the Power Supply Unit

The power supply unit is placed on the rear side of PxV206 – 2U Platform.

Each PxV206 – 2U Platform can be equipped optionally depending on the power supply unit (PSU) with an AC–PSU, a DC–PSU or a redundant PSU.
For information about the power supply unit and the supply voltage of your system, refer to the type label attached at the inside of the drive door.

System Version	Integrated PSU	Input
PxV206-A	AC PSU	100 – 240 VAC 50 – 60 Hz max. 320 W
PxV206-B	AC PSU	100 – 240 VAC 50 – 60 Hz max. 300 W
PxV206-C	DC PSU	– 50 to –60 VDC max. 250 W
PxV206-D	AC redundant PSU	115 / 230 VAC 50 / 60 Hz max. 320 W



For PxV206-C only: it is not allowed to remove or to bridge the ATX-plug with the Kontron ATX-extension (a T10A fuse integrated in the 3.3V-circuit of the –48V DC-PSU).

For DC power supplies please observe that the supply circuit must withstand loads minimum 25A for the –48V power supply.

Redundant Power Supply Unit

The redundant PSU has additionally to the AC/DC PSU, a power supply switch, a PSU alarm reset button and it is equipped with acoustical and display controls.

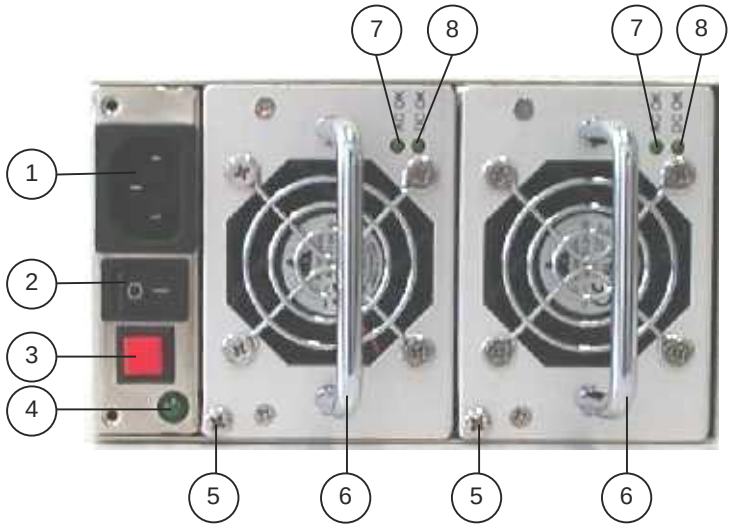


Fig. 7: AC redundant-PSU

1 Power plug

2 PSU Power switch

3 PSU Alarm-reset button

4 Redundant PSU LED

5 Screws for removing/installing the redundant PSUs

6 Handle

7 AC–Power status LED

8 DC–Power status LED

During operation all LED control displays of the redundant power supply unit are on.

Behaviour of the PxV206 – 2U Platform equipped with a redundant PSU

System power switch	System power LED	PSU power switch	PSU power LED	Redundant PSU				System status
				Module 1		Module 2		
				AC OK	DC OK	AC OK	DC OK	
Off	Off	On	On	On	Off	On	Off	PSU is **On** but the system is not working
On	On	On	On	On	On	On	On	The system is operating
On	blink	On	blink	On	Off	On	On	The system is operating with one defective PSU
On	blink	On	blink	On	On	On	Off	The system is operating with one defective PSU

If a failure occurred and one of the PSU modules is defective, the redundant PSU LED start to blink and a beep is audible. The DC–Power status LED from the defective redundant PSU module is not on.

The PxV206 2U Platform is continuing to operate with one of the power supply modules.
By press of the PSU alarm reset button the beep will be interrupt, but the redundant PSU LED is still blinking till the defective power supply module was changed with a good one.
The redundant PSU LED is in a one to one connection with the system power LED (located at the front panel).

Hot -Swap procedure

Please carry out following procedure if one of the power supply module is defective.

1. The blinking of the system power supply LED indicate a failure of the redundant power supply unit.
2. If the system is integrated in a rack, remove at first the unit to have access to the back side of the PxV206 – 2U Platform (loosen the 4 screws for in rack mounting).
3. Locate the defective power supply module by examining the status of DC power status LEDs of the redundant PSU.
4. Unscrew and remove the defective PSU module.
5. Replace by inserting the new (a good one) PSU module into the PSU chassis and screw it on.
6. Check the DC OK LED which indicate the power supply status; that should be lighting.
7. Replace the PxV206 – 2U Platform into the rack (if the system is integrated in a rack.

Internal Drive

Internal there are equipped a drive :

- ❑ One 3.5“ bay (for IDE hard disk drive)

Backplane

On your system is integrated a 32-bit PCI butterfly backplane.

The backplane is provided for the standard version with:

- ❑ two PICMG SBC locations (only one SBC installed at any given time)
- ❑ four PCI expansion slots to expand your system (three of them full size and one of them half size).
- ❑ one ISA expansion slot (half size) to expand your system.

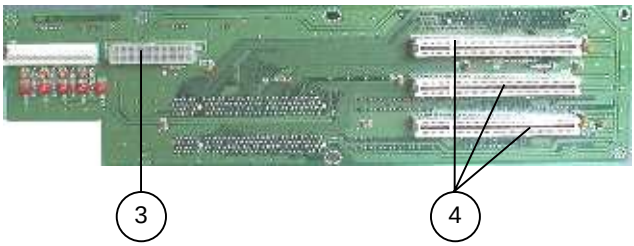


Fig. 8: Backplane – front side

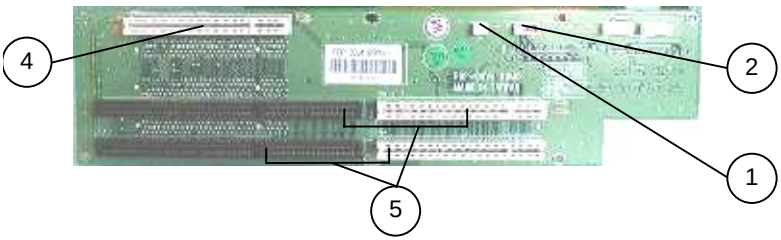


Fig. 8a: Backplane – rear side

1 Power connector for front fans

2 Connector for main power switch

3 Power connector

4 PCI slots

5 PICMG (ISA + PCI)



To expand your 2U system with additional cards, please observe the power consumption specification specified in the chapter “Main Specifications” and that every additional card does not exceed 25 W power consumption.

SBC Board

The standard unit is equipped with one 32-bit SBC board.

Your system can accommodate a Pentium III®/Celeron®- or a Pentium®4/Celeron®-CPU compatible Single Board Computer (SBC).



For detailed information refer to the delivered technical reference manual of the SBC board.

Assembly, Disassembly

Mounting the Rubber Feet

If the system is to be used as a desktop unit, follow these steps to install the rubber feet:

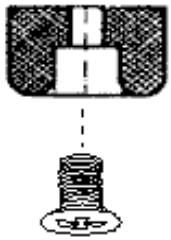


Fig. 9: Screw inside a rubber foot

1. First, make sure that all boards are secured in the unit and that the cover of the system is installed and secured.
2. Turn the system upside down.
3. Position the four rubber feet at each corner of the system.
4. Insert one screw inside each rubber foot and secure them to the system.

Accessing Internal Components

This section contains important information that you must read before accessing the internal components. You must follow these procedures properly when installing, removing or handling any board.

Installing the Additional Cards

The additional cards are mounted to the free PCI and/or ISA backplane slots. Please consider following instruction at the install (or removal) an additional card.



The installation and removal of ISA/PCI cards have to be carried-out only by qualified specialist personnel in accordance with the description in this manual.

Before removing the cover to gain access to the internal components, the system must be powered-down and the power cord has to be disconnected from the power source.

To expand your system with additional cards, please observe the power consumption specification specified in the chapter “Main Specifications” and that every additional card does not exceed 25 W power consumption.



Please observe the safety instruction for handling assemblies with sensitive device to static electricity (ESD).
Failure to take heed of this warning instruction can result in damage to the device.



Please consult the documentation provided by the additional card manufacturer for instructions before attempting to install/remove an additional card into/from the PxV206 – 2U Platform.

To install (or remove) an additional card, complete the following steps:

1. Turn off all power sources.
2. Remove the captive knurled screw located at the rear of the unit securing the cover.

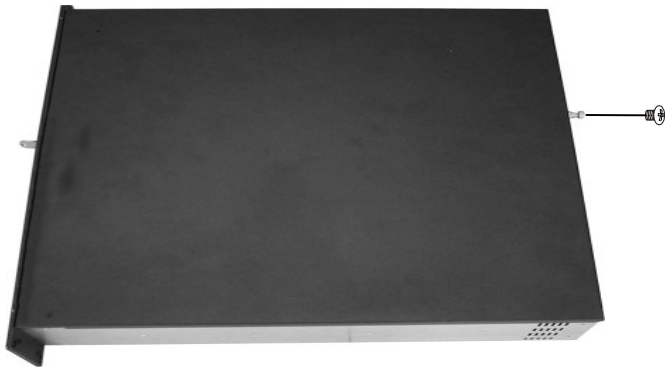


Fig. 10: Removing cover

3. Lift the back of the cover and pull it out.

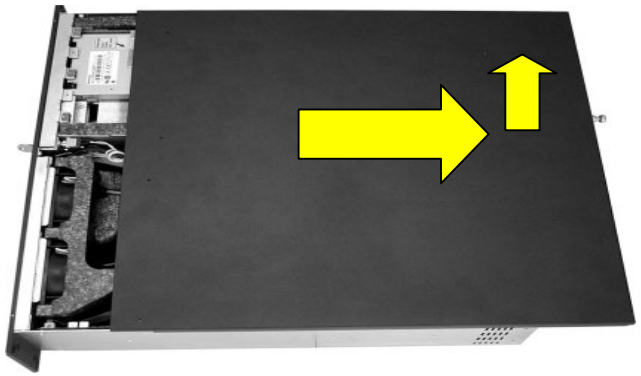


Fig. 11: Removing cover

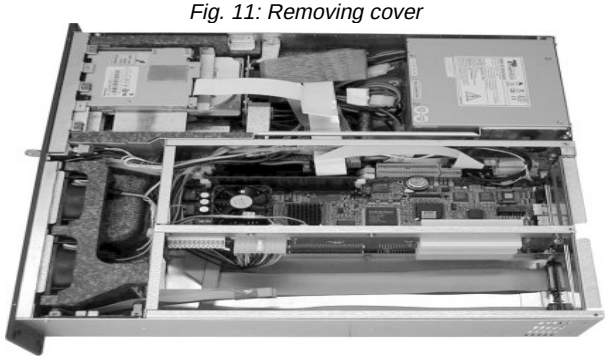


Fig. 12: PxV206 - 2U without cover

4. Remove the next captive knurled screw on the bottom part of the rear panel

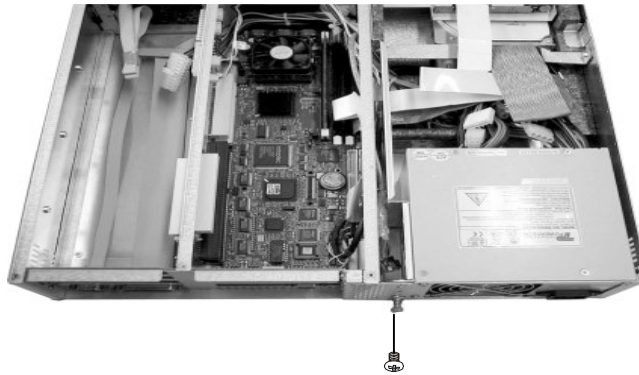


Fig. 13 Removing the captive knurled screw

5. Disconnect all data and power cables from the SBC-card.

6. Pull out and lift the card cage from the housing.

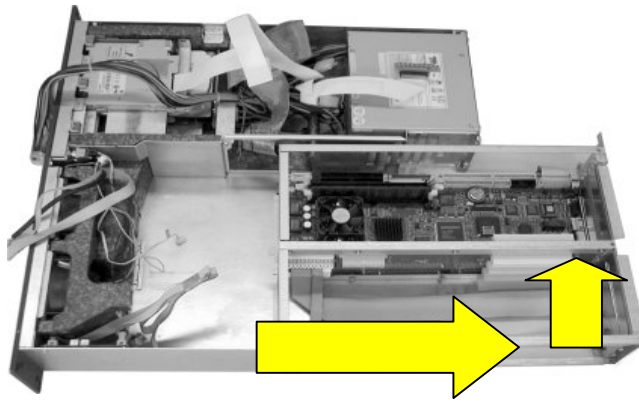


Fig. 14: Removing card cage with SBC board

7. Remove/install the additional card from/to the backplane slots.

Start-Up

Power Cord Connection

AC-Connection

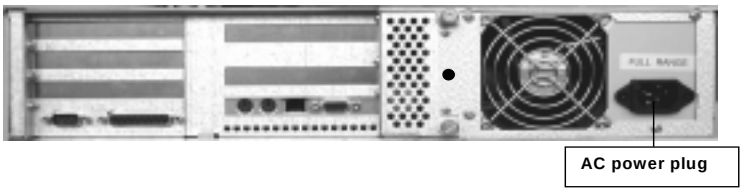


Fig. 15: AC power connection

1. Connect the AC power cord into the system AC power plug.
2. Connect the AC power cord into a outlet.

AC-Connection (with redundant PSU)

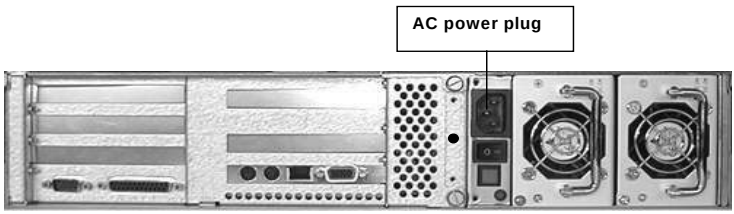


Fig. 16: AC redundant power connection

1. Connect the AC power cord into the system AC power plug.
2. Connect the AC power cord into a outlet.
3. Set the power supply switch to “On”.



Do not remove or alter the grounding prong on the power cord. In situations where a two-slot receptacle is present, have it replaced with a properly grounded three-prong grounding type receptacle.

DC-Connection

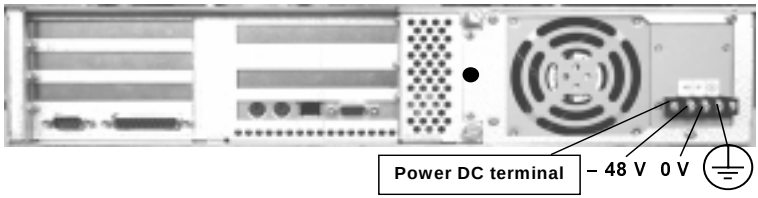


Fig. 17: DC power connection

1. Connect the DC power cable and observe the right polarity of the connection.
2. Tighten the cross-head screw.

Operating System and Hardware Components Drivers

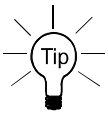
The PxV206-2U Platform can be optionally supplied with or without installed operating system.

If you ordered your system with installed operating system, all drivers are installed, corresponding to the ordered system configuration (optional hardware components). Your PxV206 is fully functional when you switch it on for the first time.

If you ordered your system without installed operating system, you have to install the operating system and the corresponding drivers for the ordered system configuration (optional hardware components).

☞ Consider thereby the manufacturer specifications of the operating system and the integrated hardware components.

Instruction for Installation in a 19” Cabinet



If you want to expand your system with additional cards, than do this before installing the PxV206 into the 19” industrial cabinet.

Please observe at that place the details included in the chapter “Accessing Internal Components ”.

Before mounting the PxV206 – 2U Platform in a cabinet, you must connect your peripheral devices to the system interfaces. Refer to chapter “Ports on the Back Side ” for the description of the interfaces.

Before mounting the PxV206 – 2U Platform with redundant power supply unit in a rack, the PSU power switch must be set to “I”. (see also chapter “Redundant Power Supply Unit”)



Important Instructions!

Make sure there is sufficient air circulation around the device when installing the PxV206 – 2U.
The openings for air intake and exhaust on the device and the 19" industrial cabinet must not be obstructed.

When installing the 2U Platform in a 19" cabinet, leave at least 5 cm of space free around the unit to prevent the device from possibly overheating!

The 19" industrial cabinet must stand firmly in place. You can improve its stability by placing the components into it from the bottom up. Heavy components should be placed down below.

If further stabilisation is necessary, then bolt the 19" industrial cabinet to the floor or anchor it on the wall.



The voltage feeds must not be overloaded. Adjust the cabling and the external overcharge protection to correspond with the electrical values indicated on the type label.
The type label is located on the inside of the drive door.

For DC power supplies please observe that the supply circuit must withstand loads minimum 25A for the –48V power supply.

Maintenance and Prevention

Kontron Elektronik systems require minimal maintenance and care to keep them operating correctly.

- ❑ Occasionally wipe the system with a soft dry cloth.
- ❑ You should only remove persistent dirt by use of a soft, slightly damp cloth (use only a mild detergent).
- ❑ Clean regularly the air filter mats.

Changing the Air Filter Mat

Cleaning frequency will depend on the operating environment. If the environment is extremely dusty, clean the air filter mat more often. The air filter mat can be changed even if the system is powered-up.

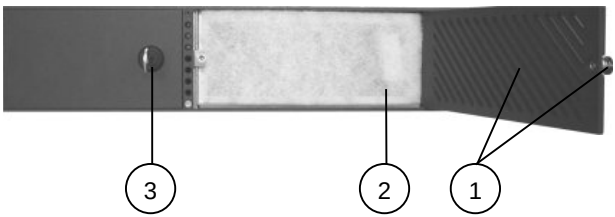


Fig. 18: Dust filter placing

1 Fan door with captive knurled screw

2 Air filter mat

3 Drive door

To remove the air filter mat located at the front of the system, proceed as follows:

1. Remove the captive knurled screw of the fan door.
2. Open the fan door and remove the air filter mat.
3. To clean the air filter mat:
   - ❑ Rinse in water (up to approx. 40°C; you may add mild-duty commercial detergent).
   - ❑ It is also possible to beat it out, vacuum it or blast it with warm compressed air.
   - ❑ If the filter is soiled with greasy dust, you should rinse it with warm water with degreaser added. Do not clean the filter mat with a piercing jet of water or wring it out.
4. After cleaning and drying of the air filter mat, put these over the fans, close the fan door and tighten the captive knurled screw.

Lithium Battery

The SBC board of your PxV206-2U Platform is equipped with a lithium battery.



Please observe the safety instruction described in the section „Instructions for the Lithium Battery“.

Main Specifications

Processor	Up to 850 MHz Intel Pentium® III or 733 MHz Intel Celeron®
	Up to 3.06 GHz Intel Pentium® 4 or 1.8 GHz Intel Celeron®
Battery	Refer to the SBC user manual supplied
Internal drive	1x 3.5” hard disk drive (IDE)
External accessible bays	1x 5.25” bay 1x 3.5” bay
Interfaces	On the rear panel: SBC card interfaces (refer to SBC User Manual) 1x parallel port (LPT) (SPP, ECP, EPP) 1x serial port (COM2) configurable as RS232, RS422, RS485) On the front side panel: 1x serial port (COM1) configured as RS232 1x combined PS/2 Keyboard&Mouse connector
Slots	On the rear panel: 1x 32 bit PICMG slot (for the SBC-card) 1x PCI (half size) 3x PCI (full size) 1x ISA (half size)
Operating elements	On the front panel: Power switch Reset button On rear panel (only units with AC redundant PSU): PSU Alarm reset button AC power switch
LED indicators	On the front panel: 1x Power-LED 1x HDD-LED On the rear panel (only units with AC redundant PSU): 2x AC Power indicator LEDs 2x DC Power indicator LEDs

AC power plug resp. DC power screw terminals	On the rear panel		
Operating system	Information about the applicable operating systems refer to the website: www.kontron.com or: techsupport@kontron.com		
Power specification (max. power value for additional customized applications)	Total power of all additional customized applications for:	PxV206-A PxV206-B	125 W
		PxV206-C PxV206-D	95 W
	Power of each used interface (ISA resp. PCI)	25 W	
	Power on +12 VDC	30 W	
	Power on -12 VDC	8 W	
	Power on -5 VDC	1 W	
	Power on +5 VDC	80 W	
	Power on +3,3 VDC	30 W	
	Power on +5 VSB	1 W	



Please take care, that the total PSU output power of your system doesn't exceed the following value:

PxV206-A	250 W
PxV206-B	250 W
PxV206-C	210 W
PxV206-D	210 W

Electrical Specifications

System Version	Integrated PSU	Input
PxV206-A	AC PSU	100 – 240 VAC 50 – 60 Hz max. 320 W
PxV206-B	AC PSU	100 – 240 VAC 50 – 60 Hz max. 300 W
PxV206-C	DC PSU	–50 to –60 VDC max. 250 W
PxV206-D	AC redundant PSU	115 / 230 VAC 50 / 60 Hz max. 320 W

Mechanical Specifications

Dimensions	
Height	2U x 19" (88,9 mm)
Width	16.90" (430.2 mm)
Depth	18" (457.2 mm)
Weight	10 kg approximately (without packaging)
Housing	steel with zinc plating, ALU front panel black

Environmental Specifications

Thermal management	Two ball-bearing fans Power supply fan E-PAC (Air channels in E-PAC) to cool hot locality
Mounting systems	Rackmount enclosure
Operating temperature / humidity	0 … +50°C / 20–90 % @ 40 °C (32 … 113 °F / 20–90% @ 104 °F)
Storage / transit temperature / humidity	–40 … +70 °C / 5–95 % @ 40 °C (–40 … 158 °F / 5–95 % @ 104 °F)
Operating altitude	10,000 ft (3,048 m)
Storage / transit altitude	50,000 ft (15,240 m)
Operating shock	15 G max., at 11 ms duration, half sinus / 6 axis
Storage/transit shock	30 G max., at 11 ms duration, half sinus / 6 axis
Operating vibration	10 – 58 Hz, ± 0.075 mm 58 – 500 Hz, 1.0 G
Storage / transit vibration	10 – 58 Hz, ± 0.15 mm 58 – 500 Hz, 2.0 G
Acoustic noise	<50 dB at 1 m in front of the system at full load
Protection class	IP 52 front side

CE-Directives, Standards and Approvals

CE -Directives	
Low Voltage directive (Electrical Safety)	73/23/EEC
EMC Directive	89/336/EEC

Electrical Safety	**Standards**
EUROPE	EN 60950, 3rd edition

EMC	**Standards**
EUROPE	EN 50081-1/ -2 (emission) EN 50082-1/ EN 61000-6-2 (immunity) EN 55022/ B: 1998 (CISPR22)
U.S.A.	FCC 47 CFR Ch1 § 2.902 Verification Procedure

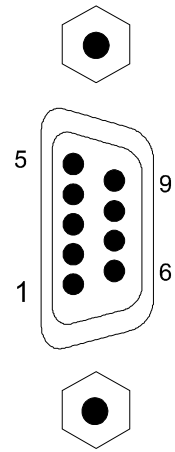
Agency Approvals	**Standards**
Designed to meet TÜV	EN 60950
Designed to meet UL	UL 60950

Technical Appendix – Interfaces

The following tables show the plug assignments for the external connections of the PxV206 – 2U Platform.

Low-active are indicated by a minus sign.

RS232

Pin	Signal name		9-pin SUB D-plug
1	DCD	(Data Carrier Detect)	
2	RXD	(Receive Data)	
3	TXD	(Transmit Data)	
4	DTR	(Data Terminal Ready)	
5	GND	(Signal Ground	
6	DSR	(Data Set Ready)	
7	RTS	(Request to Send)	
8	CTS	(Clear to Send)	
9	RI	(Ring Indicator)	

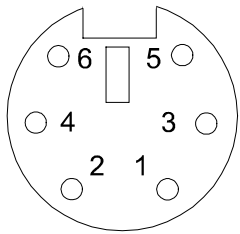
RS422 (COM 2 only)

Pin	Signal name
1	not connected
2	RX- (Receive Data -)
3	TX- (Transmit Data -)
4	not connected
5	GND (Signal Ground)
6	not connected
7	RX+ (Receive Data +)
8	TX+ (Transmit Data +)
9	not connected

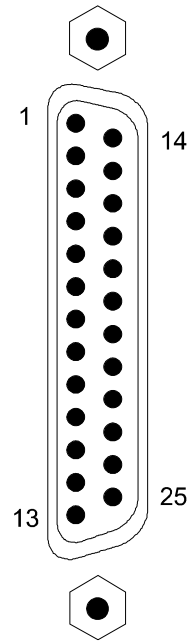
RS485 (COM2 only)

Pin	Signal name
1	not connected
2	RX/TX- (Receive/Transmit -)
3	not connected
4	not connected
5	GND (Signal Ground)
6	not connected
7	RX/TX+ (Receive/Transmit +)
8	not connected
9	not connected

PS/2 Keyboard and Mouse Connector

Pin	Signal name	6-pin Mini-DIN socket
1	Keyboard data	
2	Mouse data	
3	GND	
4	+5 V	
5	Keyboard clock	
6	Mouse clock	

Parallel Port

Pin	Signal name	25-pin SUB D-socket
1	–STROBE	
2	DATA0	
3	DATA1	
4	DATA2	
5	DATA3	
6	DATA4	
7	DATA5	
8	DATA6	
9	DATA7	
10	–ACKN	
11	BUSY	
12	PE	
13	SELECT	
14	–AUTOFD	
15	–ERROR	
16	–INIT	
17	–SLCTIN	
18–25	GND	

Technical Support

For any technical questions, please contact our Technical Support department.

German headquarter Hotline:
TEL: (+49) 8165-77 112
FAX: (+49) 8165-77 110
E-mail: techsup@kontron.com

Make sure you have the following on hand when you call:

- the unit part number (P/No #),
- and the serial number (S/No #) of the defective unit (provide the serial number found on the type label, inside of the drives door).

Be ready to explain the nature of your problem to the service technician.

If you have any questions about Kontron Embedded Computers or our products and services, you may reach us at the aforementioned numbers, or at : www.kontron.com or by writing to:

Kontron Embedded Computers GmbH
Oskar-von-Miller-Str. 1

85386 Eching near Munich
Germany

Returning Defective Merchandise

Before returning any merchandise please do the following if your Kontron Embedded Computers product malfunctions:

1. Contact our Service and request an
   RMA number (Return Material Authorization) by :
   Fax: (+49) 8165-77 311
   E-mail: service@kontron.com
2. Make sure that you receive an RMA number from Kontron Embedded Computers-Service before returning any merchandise. Clearly write or mark this number on the outside of the package you are returning.
3. Describe the device failure behavior.
4. Include the name and telephone number of a person whom we can contact for further explanations if necessary when returning goods. Where applicable, always include all duty papers and invoice(s) associated with the item(s) in question.
5. When returning a Kontron Embedded Computers unit.
   - Ensure that the unit is packed in the original box.
   - include a copy of the RMA form.