



## Serwer chassis SC01 series

### User's manual



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## 1. Important precautions and information regarding the use of 19" server chassis

### 1.1 Introduction

PLEASE SAVE THIS MANUAL - This set of recommendations and manual instructions, for Lanberg 19" server chassis, including the following models supported:

- SC01-4504-08B
- SC01-5504-08B
- SC01-4504-10B
- SC01-3504-10B

Contains logistical, technical instructions and regulations that must be followed during the transport, assembly, usage and maintenance of the, above mentioned, products. Do not use the device, before reading the manual thoroughly, and appropriately following all safety information, included within the manual. Keep this manual for later use. All pictures, illustrations contained in this manual are for visual purposes only. The information in this manual has been verified and is considered sufficient. The Supplier is not liable for any inaccuracies that may be contained in this document, nor does he / she is responsible for updating, maintaining current information within this manual or to notify its users or organizations regarding manual updates. Lanberg owners, in particular, will not be responsible for any hardware, software or data (stored or used along with) the product, including repair, replacement, integration, installation or recovery of hardware, software or data, in case of misuse of the server chassis and / or its components.

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NOTE: For the most up-to-date version of this manual, please visit our website at [www.lanberg.eu](http://www.lanberg.eu).

### 1.2 Compliance with legal and regulatory requirements concerning safety and environment

This product complies with the European Union (EU) safety and environmental regulations.

The products listed in this manual are authorized in the EU by obtaining a European Union Declaration of Conformity which complies with the essential requirements and other relevant provisions of the following directives and that the following harmonized standards apply.

The Declaration of Conformity (CE) is on the page: [www.lanberg.eu](http://www.lanberg.eu)

Directive: 2011/65/EU,

Harmonized standard: IEC 62321-3-1:2013; IEC 62321-4:2013 + A1:2017; IEC 62321-5:2013;  
IEC 62321-6:2015; IEC 62321-7-1:2015; IEC 62321-7-2:2017;



Directive: 2014/30/EU,

Harmonized standard: EN 55032:2015; EN 55035:2017; IEC 61000-4-2:2008; IEC 61000-4-3:2010;

NOTE: When disposing the unit and / or its components, take all possible recyclable items to your local recycling center. By doing this, you contribute to the protection and care of the environment in accordance with the European Union WEEE.

### 1.3 General safety instructions and precautions

- Usage of this particular device does not require any specialized training nor electrical qualifications. The server chassis serves the same function as the PC case, with exclusion of its intended use within 19" rack server cabinets or applications such as: server rooms, data centers, surveillance or CCTV systems of small / medium / large companies etc.
- Before attempting any action related to connecting or disconnecting any cables, expansion cards, modules or any other devices, please beforehand disconnect their corresponding power supplies.
- Ensure that all items that are fixed in the server chassis and that the hardware, installed by the user, is properly screwed or unscrewed, when performing disassembly. It is unacceptable that any component of the server chassis, or its cohesion, is not adequately fixed / deployed or poses a threat, due to its incorrect isolation from any other properly functioning components, which in contact would be dangerous to the server chassis.
- In the case of any external devices attached to the chassis, the manufacturer's user manual must be strictly followed.
- In order to ensure the highest safety precautions and compliance, please only use components, that are recommended by the server chassis manufacturer, or fully comply with this particular device specifications.
- With exception of short periods of time, please do not run the server chassis, without the cover in its original placement. It must be in place to allow proper airflow and to prevent the server chassis from overheating.

### 1.4 Safety guidelines against ESD

To prevent damage to equipment, operating system, or electrical components through electrostatic discharge (ESD), it is important to properly prepare and carefully operate the devices, while working with them. The following measures are generally sufficient to protect equipment from ESD:

- Use a grounded wrist strap to prevent static discharge.



- Touch a grounded metal object first before further commencing work.
- When moving the motherboard or expansion card, it is recommended to grab them, only by their edges. Do not touch their components, peripheral circuits, memory modules, contacts, etc.
- When operating microchips, extension cards or modules, it is advised to avoid any contact with pins.
- Insert any motherboards, modules, expansion cards back into antistatic bags (if possible), when they are not being used.

### 1.5 Transport

During transport, store the server chassis only in the original packaging in order to protect against shocks and impacts. Do not dispose of the packaging into garbage disposal. In the case of warranty shipment of the server chassis, it must be adamantly packaged in the original, double carton.

### 1.6 Warranty

The warranty does not apply if there are faults and defects, resulting from misuse of the server chassis and improper handling of the unit (non-complying with this manual). Mechanical damage is the basis for rejecting a complaint.

### 1.7 Rozpakowanie, kontrola, przechowywanie i wentylacja

Carefully unpack the server chassis from the transport carton (box) and then from the additional safety carton. Check that the following items are included within the packaging:

- Server chassis,
- User manual,
- Complete set of fixing elements, mentioned in point 2.4).

In the event of absence or damage of any, above mentioned points, user should write and submit a discrepancy / deficiency report, and if possible, promptly notify the seller and the carrier regarding the occurrence on the same day, as the date of delivery. This product should only be installed in a specific location with restricted access (separate rooms for ICT equipment etc.). Do not install or store server chassis, in places where there is still or running water, or any other liquid substances present. In addition to that, do not install or store this device in places, where excessive humidity, electrical noise or electromagnetic fields, occur. On top of that, do not install or store in areas with excessive humidity. Users should avoid exposing the device to direct sunlight or direct sources of heat. Condensation may occur if the device is moved directly from cold to warm environment. In that case, make sure that server chassis and its components are completely dry, before using them.

## 2. Comparison of 19" server chassis and their corresponding accessories

2.1 Model SC01-4504-08B			
Compatible with motherboards		Max. 12"x9.6" (305 x 244 [mm])	ATX, Micro-ATX, Mini-ATX
Height		4 [U]	
Depth		450 [mm]	
Steel thickness		0.8 [mm]	
Server chassis material		Highly durable SPCC steel	
Internal bay 3.5" slots		6x	
External bay slots	3.5"	1x	
	5.25"	3x	
Fans (L x W x H)	Front	1x (optional)	2.5x12x12 [cm]
	Rear	2x (optional)	2.5x8x8 [cm]
	Chassis	2x	2.5x8x8 [cm]
Transversal panel		Included; 14 clams location	
Front panel		Lockable; keys included	
Dust filter		Included; replaceable	
USB 2.0 port		2x	
Mini jack 3.5 mm port		2x	
Buttons		Power; reset	
LED		Power; sleep mode; HDD	
Extension cards slot type		Standard slots; removable	
Extension card slots		7x	
Power Supply		Optional	ATX Standard
Mounting rails		Optional	18" Standard
Ext. panel color		Black	
Operating temperature		0°C - 50°C	
Weight		10 [kg]	
Acceptable storage humidity		5% - 95%	
Dimensions (L x W x H)		450 x 430 x 177 [mm]	


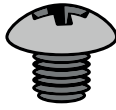




2.2 Model SC01-4504-10B			
Compatible with motherboards		Max. 12"x9.6" (305 x 244 [mm])	ATX, Micro-ATX, Mini-ATX
Height		4 [U]	
Depth		450 [mm]	
Steel thickness		1.0 [mm]	
Server chassis material		Highly durable SPCC steel	
Internal bay 3.5" slots		6x	
External bay slots	3.5"	1x	
	5.25"	2x	
Fans (L x W x H)	Front	1x (female molex)	2.5x12x12 [cm]
	Rear	2x (female molex)	2.5x8x8 [cm]
	Chassis	-	-
Transversal panel		Included; 7 clamps location	
Front panel		Lockable; keys included	
Dust filter		Included; replicable	
USB 2.0 port		2x	
Mini jack 3.5 mm port		-	
Buttons		Power; reset; key lock (KB-LK)	
LED		Power; HDD; key lock (KB-LK)	
Extension cards slot type		Standard slots; removable	
Extension card slots		7x	
Power Supply		Optional	ATX Standard
Mounting rails		Optional	18" Standard
Ext. panel color		Black	
Operating temperature		0°C - 50°C	
Weight		11.5 [kg]	
Acceptable storage humidity		5% - 95%	
Dimensions (L x W x H)		450 x 430 x 177 [mm]	

2.3 Model SC01-5504-08B			
Compatible with motherboards		Max. 12"x9.6" (305 x 244 [mm])	ATX, Micro-ATX, Mini-ATX
Height		4 [U]	
Depth		550 [mm]	
Steel thickness		0.8 [mm]	
Server chassis material		Highly durable SPCC steel	
Internal bay 3.5" slots		6x	
External bay slots	3.5"	1x	
	5.25"	3x	
Fans (L x W x H)	Front	1x (optional)	2.5x12x12 [cm]
	Rear	2x (optional)	2.5x8x8 [cm]
	Chassis	1x	2.5x8x8 [cm]
Transversal panel		Included; 14 clams location	
Front panel		Lockable; keys included	
Dust filter		Included; replaceable	
USB 2.0 port		2x	
Mini jack 3.5 mm port		2x	
Buttons		Power; reset	
LED		Power; sleep mode; HDD	
Extension cards slot type		Standard slots; removable	
Extension card slots		7x	
Power Supply		Optional	ATX Standard
Mounting rails		Optional	20" Standard
Ext. panel color		Black	
Operating temperature		0°C - 50°C	
Weight		12.5 [kg]	
Acceptable storage humidity		5% - 95%	
Dimensions (L x W x H)		550 x 430 x 177 [mm]	

2.4 Model SC01-3504-10B			
Compatible with motherboards		Max. 12"x9.6" (305 x 244 [mm])	ATX, Micro-ATX, Mini-ATX
Height		4 [U]	
Depth		350 [mm]	
Steel thickness		1.0 [mm]	
Server chassis material		Highly durable SPCC steel	
Space inside the chassis for assembly HDD/SSD		1x HDD	
		1x SSD	
		1x HDD/SSD	
Fans (L x W x H)	Front	2x	2.5x12x12 [cm]
	Rear	2x (optional)	2.5x6x6 [cm]
	Chassis	-	-
Transversal panel		-	
Front panel		-	
Dust filter		Included; replaceable	
USB 2.0 port		2x	
Mini jack 3.5 mm port		-	
Buttons		Power; reset	
LED		Power; HDD	
Extension cards slot type		Standard slots; removable	
Extension card slots		7x	
Power Supply		Optional	ATX Standard
Mounting rails		-	-
Ext. panel color		Black	
Operating temperature		0°C - 50°C	
Weight		8.5 [kg]	
Acceptable storage humidity		5% - 95%	
Dimensions (L x W x H)		350 x 430 x 177 [mm]	

## 2.5 Comparison of screws and their uses

Poniżej znajduje się zestawienie śrub zawartych w obudowach serwerowych, ich liczba oraz cel użycia:

Element	Hexagon bolt	Phillips round screw	Self-tapping screw	Phillips flange screw	Cadmium flange screw	Cover plate
	1	2	3	4	5	6
Picture						
Purpose	Fixing the power supply	Fixing HDD, FDD	Fixing the motherboard	Fixing Optical drives, FDD, motherboard	Fixing optional extension cards accessories	Fixing between motherboard and screw no. 4
Qty. of SC01-4504-08B	4x	24x	9x	25x	2x	9x
Qty. of SC01-4504-10B	4x	32x	9x	11x	-	9x
Qty. of SC01-5504-08B	4x	32x	9x	25x	2x	9x
Qty. of SC01-3504-10B	4x	4x	6x	14x	2x	6x



## 2.6 Importance of server chassis elements

1) Mounting element to be assembled within 19" cabinets	2) Flat element's screw hole for fixing M6 bolts	3) Server chassis handle	4) USB Port
5) 3.5 mm mini jack port	6) Power LED	7) Sleep LED	8) Disc operation LED
9) Key lock LED	10) Dust filter	11) Reset button	12) Key lock
13) Power switch	14) 5.25" outer bay slot	15) 3.5" outer bay slot	16) 3.5" internal bay slot
18) Fan	19) Fan slot	20) Motherboard's slot blanking cap (PCI)	21) Extension card blanking cap (PCI)
			22) Clamping element of extension cards

Figure 2.6.1.1 - SC01-4504-08B chassis

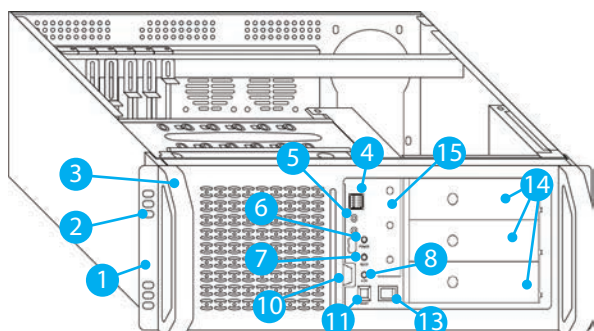


Figure 2.6.1.2 - SC01-4504-08B chassis

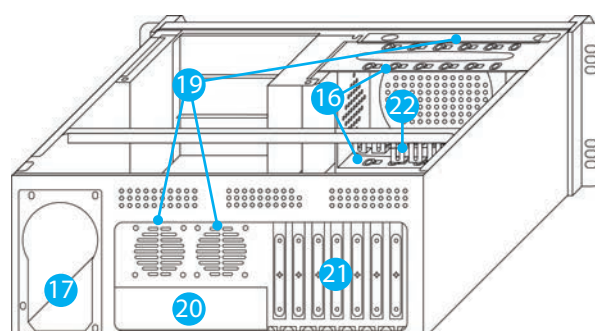


Figure 2.6.1.3 - SC01-4504-10B chassis

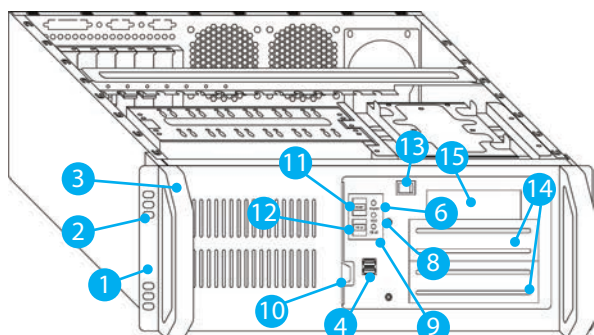


Figure 2.6.1.4 - SC01-4504-10B chassis

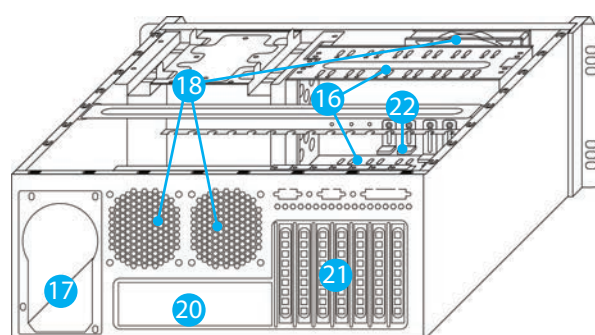


Figure 2.6.1.5 - SC01-5504-08B chassis

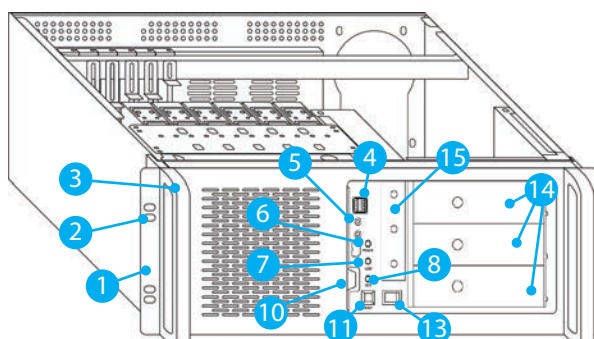


Figure 2.6.1.6 - SC01-5504-08B chassis

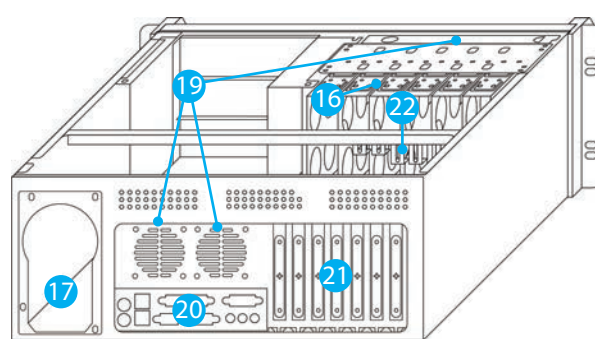


Figure 2.6.1.7 - SC01-3504-10B chassis

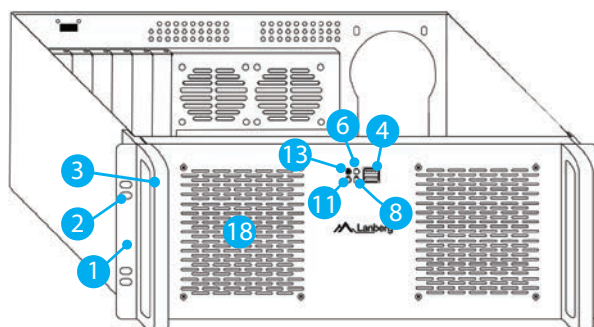
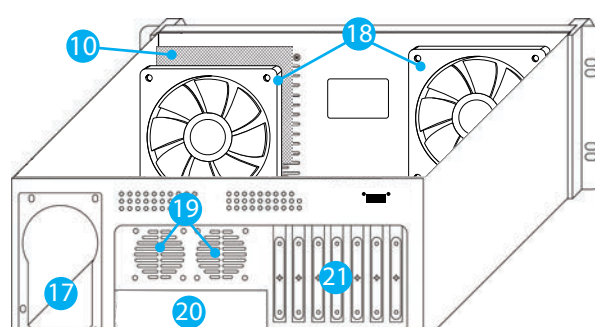


Figure 2.6.1.8 - SC01-3504-10B chassis



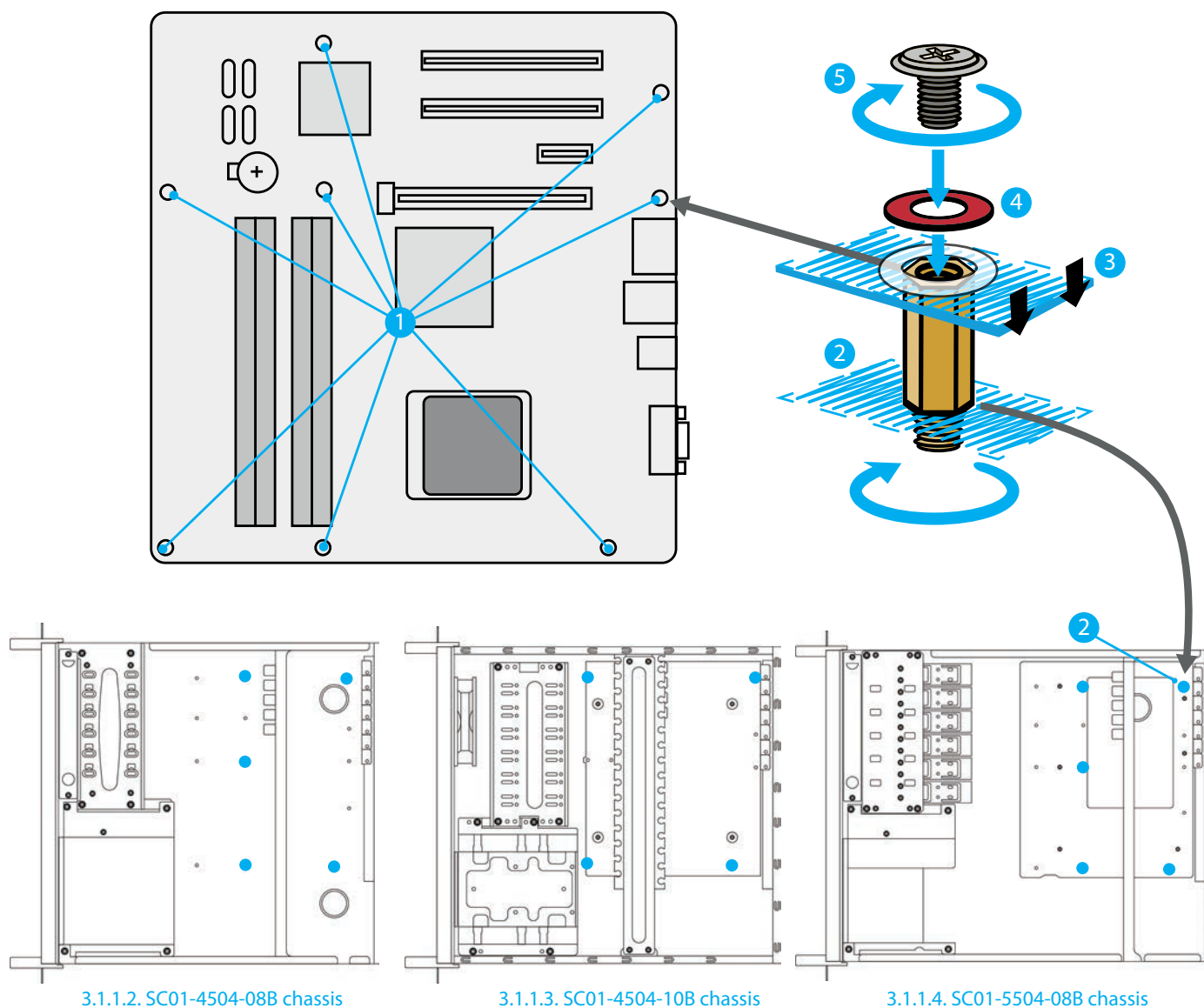
### 3. Assembly

Before proceeding to the following steps, prepare a screwdriver with a Phillips and a flat tip. Afterwards, pull out the top cover of the server chassis by unscrewing the 2 upper screws on the both sides of the chassis and 2 upper screws at the back of the chassis – only in reference to points 3.1-8. Lastly, after inserting the elements into the server chassis, re-attach the upper chassis cover and screw back, the 2 bolts on the sides. Then the server chassis should be assembled within ICT / 19" rack cabinet to prevent any dangerous conditions, from happening, due to uneven mechanical load – please refer to section 3.10) for more details).

#### 3.1 Motherboard

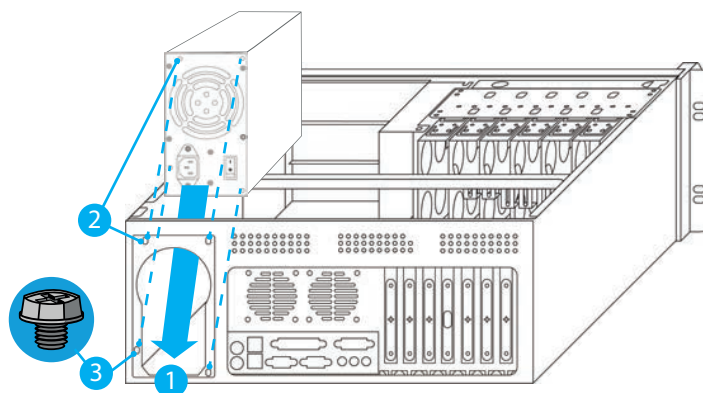
1. Make sure to prepare the motherboard, before progressing any further, to the following steps. It is critical to check the location of the screw holes on the motherboard, that will be used to fix it in the server chassis. Motherboard should not have a fan fitted to the processor, during the assembly, due to transverse panel placement, which may interfere and make the assembly problematic – Figure 3.1.1.1.
2. Screw the self-tapping screws (element no. 3) accordingly (their number depends on the type and size of the motherboard used) in the screw holes on the server chassis, located at the back, under the transverse panel. Screw only those bolts, which can be fixed firmly in their corresponding places, on the motherboard, without causing any damage – Figures 3.1.1.2-4.
3. Carefully lower and place the motherboard in the designated space of the server chassis, located at the back, under the transverse panel. Align the motherboard carefully, so that its screw holes (Figure 3.1.1.1) overlap with server chassis screw holes – Figures 3.1.1.2-4.
4. Gently place the cover plates (element no. 6) only on those screw holes, on the motherboard, whose server chassis counterparts have the self-tapping screw fitted, already – Figures 3.1.1.2-4.
5. Screw the correct flange bolts (element no. 4) to the screw holes, on the motherboards, whose counterparts, have self-tapping screw fitted, already – Figures 3.1.1.2-4.

Rysunek 3.1.1.1



### 3.2 Power Supply (PSU)

1. Carefully, place the power supply on your Motherboard, at the back of the server chassis, on the left side, as presented on Figure 3.2.1.1-3.
2. Align, the screw holes of the Power Supply, so they would fit (as much as possible) the placement of screw holes, on the server chassis – Figures 3.2.1.1-3.
3. Screw the correct hex screws (element no. 1) into the holes on the server chassis, in order to properly fix the power supply – Figures 3.2.1.1-3.
4. Connect the powerline to those components and / or devices, you want to power in accordance to the manual, provided by the manufacture of the motherboard and / or the devices you intend to connect.



3.2.1.1. Power Supply (PSU) assembly

### 3.3 Assembly of devices into 3.5" internal bay slot

#### 3.3.1. SC01-4504-08B and SC01-4504-10B models

1. Unscrew 4 hex bolts, fixing the 3.5" internal bay to the server chassis – Figure 3.3.1.1-2.
2. Carefully remove, from the top, the 3.5" internal bay, from the server chassis – Figure 3.3.1.1-2.
3. Carefully insert the component (e.g. 3.5" HDD), that matches the size of 3.5" device or adapter – into the free 3.5" slot of the internal bay – Figure 3.3.1.1-2.
4. Align the placement of the screw holes, in such way, so they match, as much as possible, with the location of screw holes, found on the 3.5" internal bay – Figure 3.3.1.1-2.
5. Screw 4 round Phillips screws (element no. 2), 2 bolts each, from the outer side of the slot, to firmly fix the device to the 3.5" internal bay – Figures 3.3.1.1-2.
6. Carefully insert, from the top, the 3.5" internal bay into the server chassis, to its destined, original placement – Figure 3.3.1.1-2.
7. Screw 4 hex bolts back, responsible for fixing the 3.5" internal bay to the server chassis – Figure 3.3.1.1-2.
8. Properly connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect.

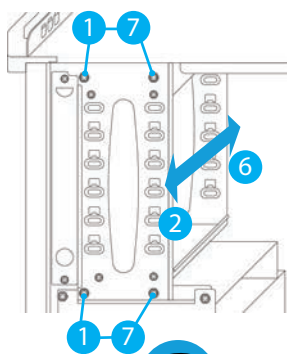


Figure 3.3.1.1.  
SC01-4504-08B  
chassis

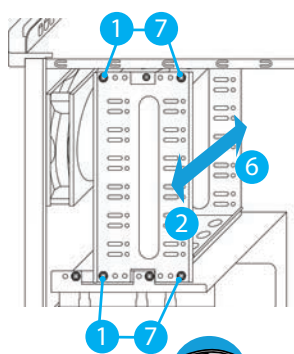
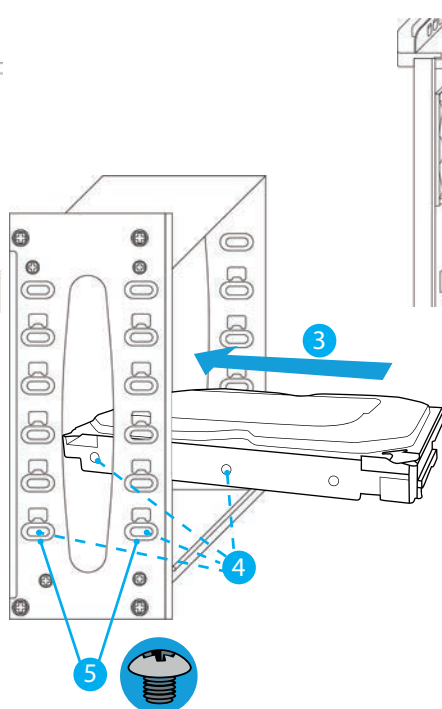
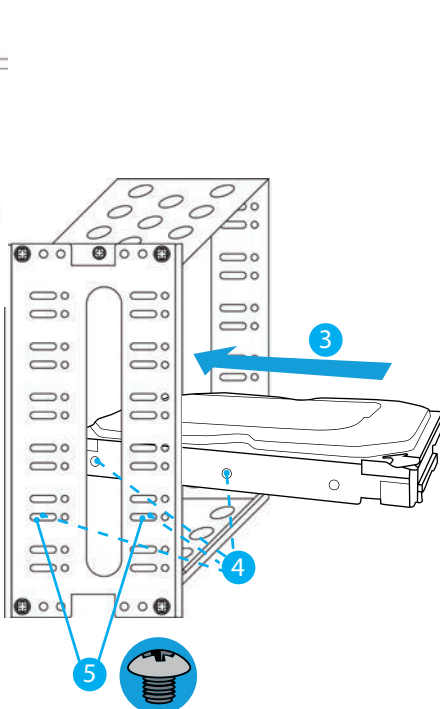


Figure 3.3.1.2.  
SC01-4504-10B  
chassis





### 3.3.2. SC01-5504-08B model (figure 3.3.2.1)

1. Unscrew the 4 hex screws fixing the 3.5" internal bay to the server chassis.
2. Carefully remove, from the top, the 3.5" internal bay from the server chassis.
3. Unscrew, 2 Phillips bolts with flange, fixing the tray with the 3.5" internal bay.
4. Remove from the 3.5" internal bay, tray, from which, bolts have been previously unscrewed (point 3).
5. Carefully place the device (e.g. 3.5" drive), which fits in terms of 3.5" dimensions –or a 3.5" adapter – to the previously removed 3.5" internal bay tray.
6. Align, the placement of the device screw holes, in such way, so they would overlap, as much as possible, with the screw holes found on the 3.5" internal bay tray .
7. Screw 4 round Phillips bolts (element no. 2), 2 screws each, on the external sides of the tray, in order to firmly fix the device to the tray.
8. Place the tray back into the 3.5" internal bay (the exact opposite of the point 4) – Figure 3.3.2.1.
9. Screw 2 Phillips bolts with flange back, which are fixing the tray with 3.5" internal bay (the exact opposite of the point 3).
10. Gently put, from the top, the 3.5" internal bay in the server chassis, where it was located before being removed.
11. Screw the 4 Hex bolts back, responsible for fixing the internal bay to the server chassis.
12. Properly connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect.

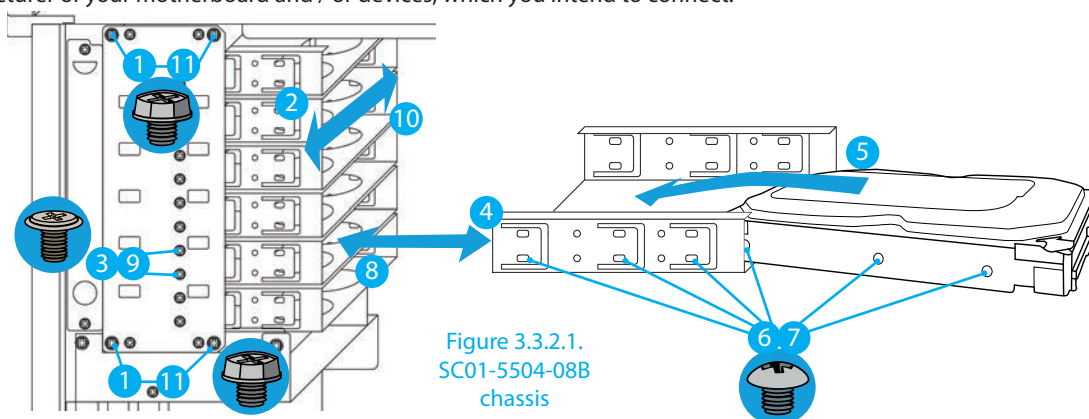


Figure 3.3.2.1.  
SC01-5504-08B  
chassis

### 3.4 Assembly of devices into 3.5" outer bay slot

In the following server chassis, it is possible to adjust the 3.5" tray of 5.25" outer bay, in such a way, as to connect various devices on a regular basis, without the necessity of screwing them to the server chassis. However, it is necessary to pay attention to the fact, that the manufacturer discourages the use of this type of solution. There is a real risk, that during the server chassis relocation, unscrewed devices inside, can be damaged.

#### 3.4.1. SC01-4504-08B and SC01-5504-08B models (figure 3.4.1.1)

1. In the event of external access required, bend a rectangular metal plate with 3 holes.
2. Unscrew 4 hex bolts, fixing the 5.25" outer bay to the server chassis.
3. Carefully remove, from the top, the 5.25" outer bay along with 3.5 tray, from the server chassis.
4. Unscrew 1 Phillips bolt with flange, responsible for fixing 5.25" outer bay with the 3.5" tray.
5. Remove 3.5" tray, by sliding it out of clamps, located on the 5.25" outer bay.
6. Carefully insert the component (e.g. 3.5" HDD), that matches the size of 3.5" device or adapter – into the previously removed, 5.25" tray of the outer bay.
7. Align the placement of the screw holes, in such way, so they match, as much as possible, with the location of screw holes, found on the 3.5" tray.

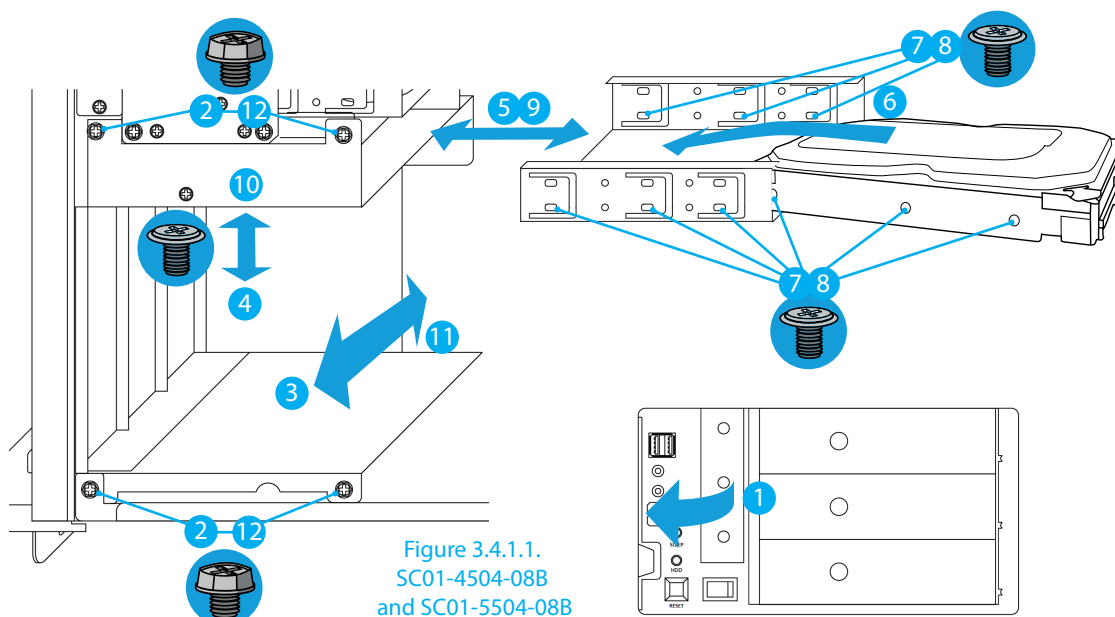


Figure 3.4.1.1.  
SC01-4504-08B  
and SC01-5504-08B

8. Screw 6 round Phillips bolts with flange (element no. 4) using 3 bolts each, on the outer sides of the tray, to firmly fix the device to the tray.
9. Insert back, carefully, the tray into the 5.25" outer bay (the exact opposite of the point (5)) – Figure 3.4.1.2.
10. Screw back 1 Phillips bolt with flange, responsible for fixing 5.25" outer bay with the 3.5" tray – (the exact opposite of the point (4)).
11. Carefully insert, from the top, the 5.25" outer bay into the server chassis, to its destined, original placement.
12. Screw 4 hex bolts back, responsible for fixing the 5.25" outer bay to the server chassis.
13. Properly connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect.

### 3.4.2. SC01-4504-10B model

1. Unscrew 4 hex bolts, fixing the 5.25" outer bay to the server chassis – Figure 3.4.2.1.
2. Carefully remove, from the top, the 5.25" outer bay – Figure 3.4.2.1.
3. Remove the front metal plate of 3.5" slot, by unscrewing 2 bolts with flange located at the top, in the front, on the sides of the 5.25" outer bay, having placed a screwdriver beforehand through the hole in the vertical metal plate with a bend – Figures 3.4.2.2-3.
4. Carefully insert the component (e.g. drive) that matches the size of 3.5" device or adapter - into the 3.5" slot of the 5.25" outer bay – Figure 3.4.2.2.
5. Align the placement of the screw holes, in such way, so they match, as much as possible, with the location of screw holes, found on the 3.5" slot of the 5.25" outer bay – Figure 3.4.2.2.
6. Screw 4 and / or 6 round Phillips bolts with flange (element no. 4) using 2 and / or 3 bolts each, from the outer sides of the slot, to firmly fix the device to the slot, having placed a screwdriver beforehand, through the hole in the vertical metal plate with a bend – Figure 3.4.2.2.
7. Carefully insert, from the top, the 5.25" outer bay into the server chassis, to its destined, original placement – Figure 3.4.2.1.
8. Screw 4 hex bolts back, responsible for fixing the 5.25" outer bay to the server chassis – Figure 3.4.2.1.
9. Properly connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect.

Figure 3.4.2.3.  
SC01-4504-10B

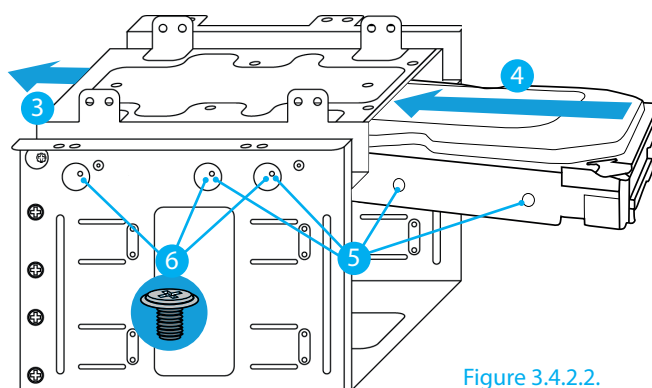
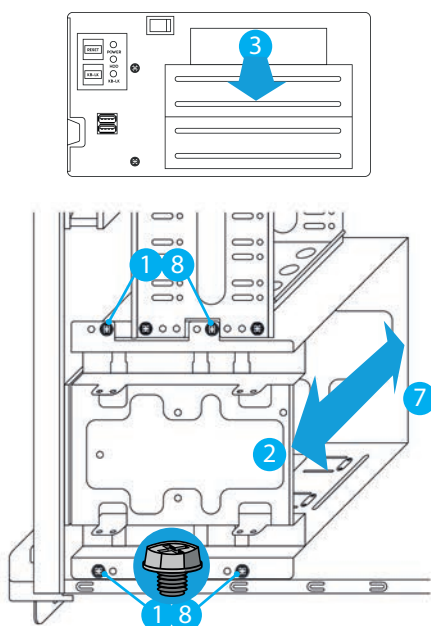


Figure 3.4.2.2.  
SC01-4504-10B

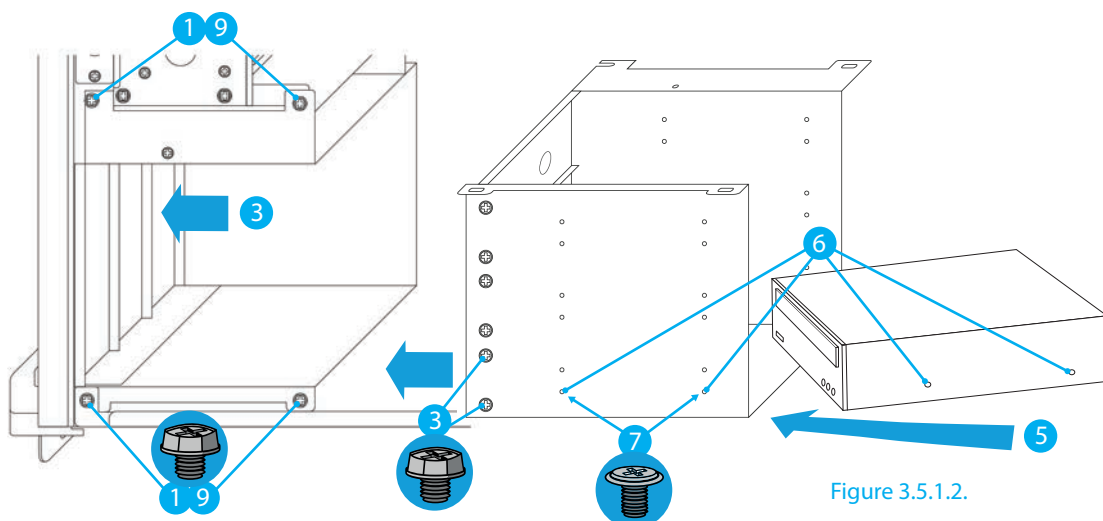
Figure 3.4.2.1.  
SC01-4504-10B

## 3.5 Assembly of devices into the 5.25" outer slot

### 3.5.1. SC01-4504-08B and SC01-5504-08B models

1. Unscrew 4 hex bolts, fixing the 5.25" internal bay to the server chassis – Figure 3.5.1.1.
2. Carefully remove, from the top, the 5.25" outer bay – Figure 3.5.1.1.
3. Remove the metal plate of 5.25" slot, by unscrewing 4 bolts with flange, beforehand, located on the sides of the 5.25" outer bay – Figures 3.5.1.1-2.
4. Manufacturer, for these particular server chassis models, recommends assembly of devices, starting from bottom to top, into the 5.25" outer bay.
5. Carefully insert the component (e.g. 5.25" CD-ROM drive), that matches the size of 5.25" device or adapter – into the 5.25" slot of the outer bay – Figure 3.5.1.2.
6. Align the placement of the screw holes, in such way, so they match, as much as possible, with the location of screw holes, found on the 5.25" slot of the 5.25" outer bay – Figure 3.5.1.2.
7. Screw 4 round Phillips bolts with flange (element no. 4) using 2 bolts each, on the sides of the slot, to firmly fix the device to the slot – Figure 3.5.1.2.
8. Carefully insert, from the top, the 5.25" outer bay into the server chassis, to its destined, original placement – Figure 3.5.1.1.
9. Screw 4 hex bolts back, responsible for fixing the 5.25" outer bay to the server chassis – Figure 3.5.1.1.
10. Connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect.

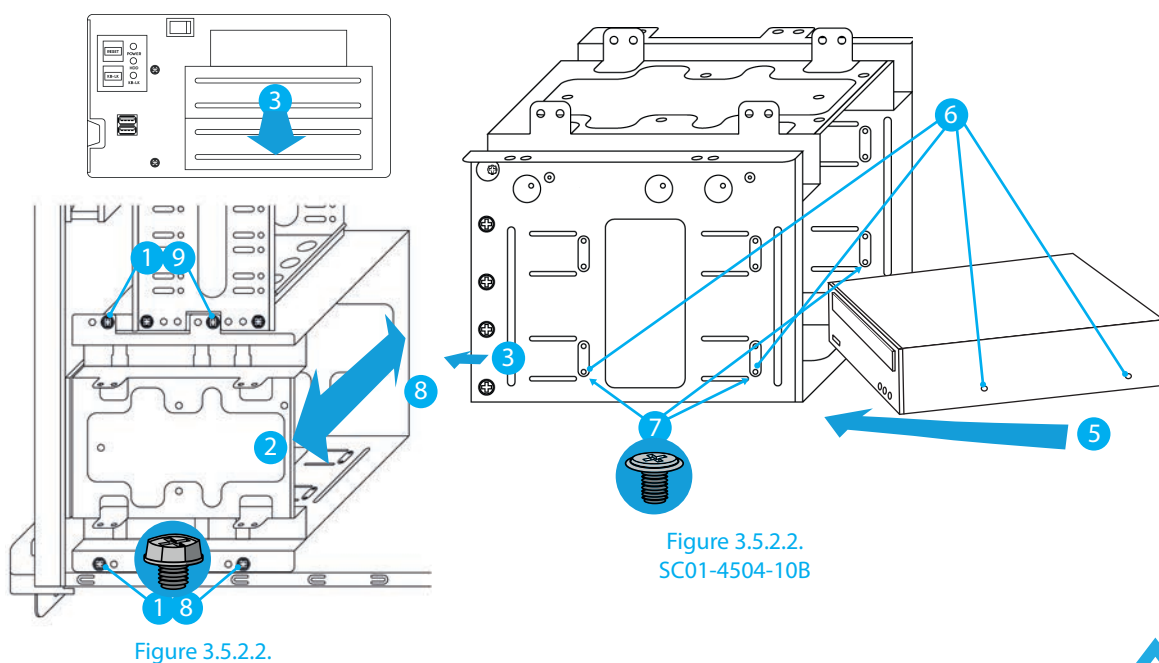
Figure 3.5.1.1.  
SC01-4504-08B  
and SC01-5504-08B



### 3.5.2. SC01-4504-10B model

1. Unscrew 4 hex bolts, fixing the 5.25" internal bay to the server chassis – Figure 3.5.2.1.
2. Carefully remove, from the top, the 5.25" outer bay – Figure 3.5.2.1.
3. Remove the metal plate of 5.25" slot, by unscrewing 4 bolts with flange, beforehand, located on the sides of the 5.25" outer bay – Figures 3.5.2.2-3.
4. Manufacturer, for these particular server chassis models, recommends assembly of devices, starting from bottom to top, into the 5.25" outer bay.
5. Carefully insert the component (e.g. 5.25" CD-ROM drive), that matches the size of 5.25" device or adapter – into the 5.25" slot of the outer bay – Figure 3.5.2.2.
6. Align the placement of the screw holes, in such way, so they match, as much as possible, with the location of screw holes, found on the 5.25" slot of the 5.25" outer bay – Figure 3.5.2.2.
7. Screw 4 round Phillips bolts with flange (element no. 4) using 2 bolts each, on the sides of the slot, in order to firmly fix the device to the slot – Figure 3.5.2.2.
8. Carefully insert, from the top, the 5.25" outer bay into the server chassis, to its destined, original placement – Figure 3.5.2.1.
9. Screw 4 hex bolts back, responsible for fixing the 5.25" outer bay to the server chassis – Figure 3.5.2.1.
10. Connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect.

Figure 3.5.2.3.



### 3.6 Extension card – PCI / PCI-E slot

1. Unscrew the Phillips bolt with flange, fixing the cap of extension card slot – Figures 3.6.1.1-2.
2. Remove the cap of extension card slot – Figures 3.6.1.1-2.
3. Verify, whether the length or height of extension card will not interfere with the clamping elements responsible for fixing extension cards. If such situation occurs, please refer to the section 3.8).
4. Insert into the PCI or PCI-E slot on the motherboard, an extension card (e.g. graphics card), strictly following the instructions, provided by the manufacturer of your motherboard and / or devices, which you intend to connect. The placement of installed device's slots has to match the direction of the previously unscrewed cap, so that the metal plate of extension card can be screwed to the server chassis – Figures 3.6.1.1-2.
5. Screw Phillips bolt with flange back, to firmly fix the metal plate of extension card to the server chassis – Figures 3.6.1.1-2.
6. If the installed extension card requires it, connect the powerline and / or data line to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or extension cards, which you intend to connect.

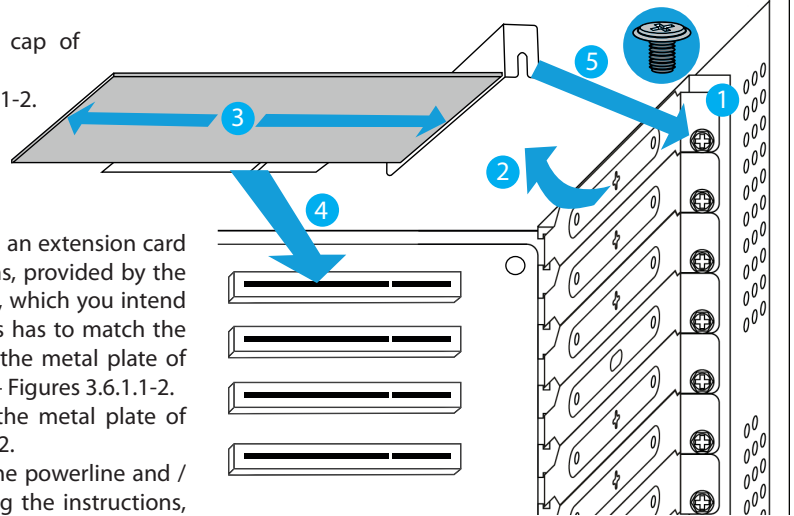


Figure 3.6.1.1.

### 3.7 Additional fans

The manufacturer is not liable for any fans installed and / or replaced by the user nor for equipment, that has been damaged due to its improper operation or incorrect handling of instructions, resulting in product damage. The manufacturer is also not liable for improper connection or use of fans.

#### 3.7.1. SC01-4504-08B and SC01-5504-08B models

1. Unscrew 2 Phillips bolts with flange fixing the rectangular metal plate, located, just in front of the internal bay 3.5", from the front of server chassis – Figures 3.7.1.1-2.
2. Remove the mounting structure of the fan – Figures 3.7.1.1-2.
3. Insert the fan, which in terms of dimensions, complies with the previously removed mounting structure, designed for fans. Place the fan in such way, that its alignment and direction, allows it to blow air into the server chassis – Figure 3.7.1.3.
4. Firmly screw the fan (depth x width x height; 2.5x12x12 [cm]) to its intended mounting structure, using 4 Phillips screws (element no. 2) – Figure 3.7.1.3.
5. Insert back the fan's mounting structure to its destined, original placement – Figures 3.7.1.1-2.
6. Screw 2 Phillips bolts with flange back, responsible for fixing the rectangular metal plate to the server chassis – Figures 3.7.1.1-2.
7. Insert 2 fans (depth x width x height; 2.5x12x12 [cm]), which are dimensionally compliant with the specification, in their destined location, at the back of the server chassis, next to expansion card caps, so that their direction and alignment allows, the fans to blow out the air from the server chassis – Figure 3.7.1.4.
8. Screw the fans to the server chassis using 4 Phillips bolts (element no. 2), each for a single fan – Figure 3.7.1.5.
9. Connect the powerline to the device properly, strictly following the instructions, provided by the manufacturer of your motherboard and / or fans, which you intend to connect.

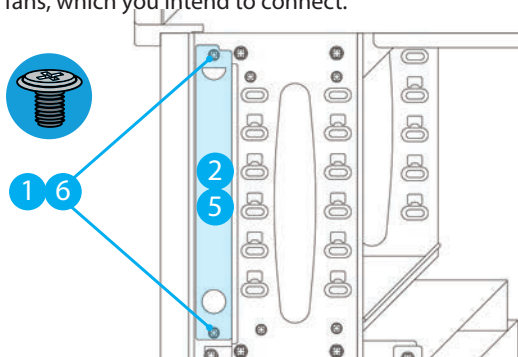


Figure 3.7.1.1. SC-4504-08B

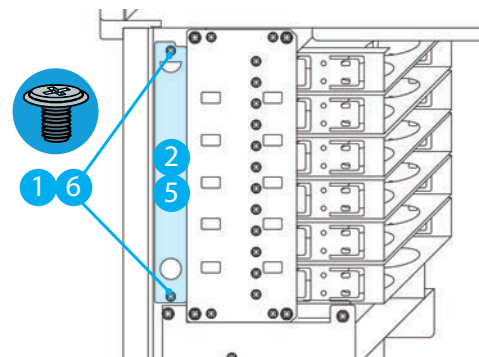


Figure 3.7.1.2. SC-5504-08B

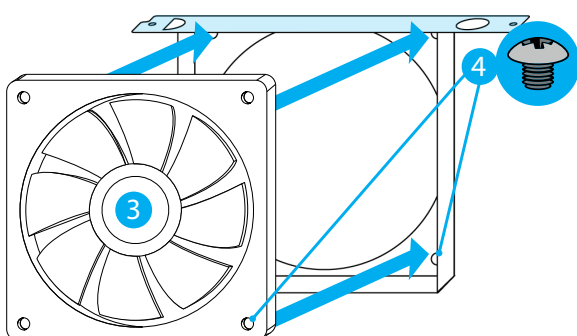


Figure 3.7.1.3. Fan assembling

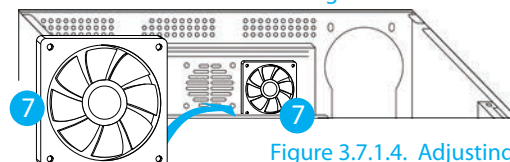


Figure 3.7.1.4. Adjusting fans

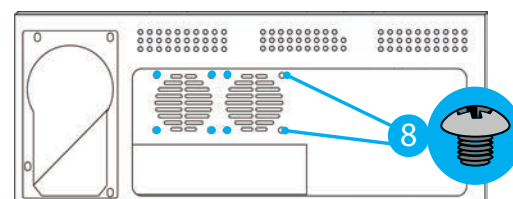


Figure 3.7.1.5. Fans assembling



### 3.7.2. SC01-4504-10B model

This particular model of server chassis is equipped with 1 fan in the front and 2 fans at the back, therefore it is not possible to install any additional fans in the locations, designated by the structure of server chassis. The manufacturer does not recommend replacement of existing fans of this server chassis, by the user. User should, on the other hand, strictly following the instructions, provided by the manufacturer of his / her motherboard, connect the power line respectively - male Molex - with 3 fans, which cables are, at the other end, fitted with female Molex socket.

### 3.8 Dociski karty rozszerzeń

It is possible to securely fix the expansion cards using the clamps, located on the top of the transverse panel. Small adjustments can be introduced to the height and / or position of the clamps, responsible for fixing extension cards.

#### 3.8.1. SC01-4504-08B and SC01-5504-08B models

1. To remove the clamps, unscrew the Phillips bolt with flange, located on the clamping plate, on the transverse panel – Figure 3.8.1.1.
2. To adjust the height of the clamping plate, slightly unscrew the Phillips bolt with flange, located on the clamping plate, on the transverse panel, and proceed with adjusting the clamping plate's height. To fix the clamping plate back, simply screw firmly the Phillips bolt with flange – Figure 3.8.1.1.
3. In order to fix the clamp, insert the plate (its direction is irrelevant) with its longer side on the transverse panel, then adjust the height of plate. To firmly fix the plate to the panel, screw it using the hex or Phillips bolt with flange – Figure 3.8.1.1.

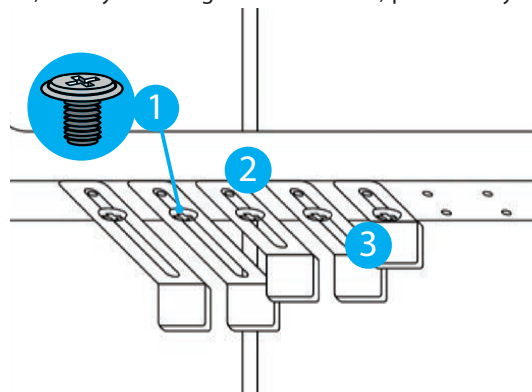


Figure 3.8.1.1. SC01-4504-10B and SC01-5504-10B

#### 3.8.2. SC01-4504-10B model

1. To remove the clamps, unscrew the hex bolt, located on the clamping plate, on the transverse panel and then slide the clamping plate downwards – Figure 3.8.2.1.
2. To adjust the height of the clamping plate, slightly unscrew the hex bolt, located on the clamping plate, on the transverse panel, and proceed with adjusting the clamping plate's height. To fix the clamping plate back, simply screw firmly the hex bolt – Figure 3.8.2.1.
3. In order to fix the clamp, insert the plate (its direction is irrelevant) with its longer side, from the bottom of the hole, on one of sides of the transverse panel, then adjust the height of the plate. To firmly fix the plate to the panel, screw it using the hex or Phillips bolt with flange – Figure 3.8.2.1.

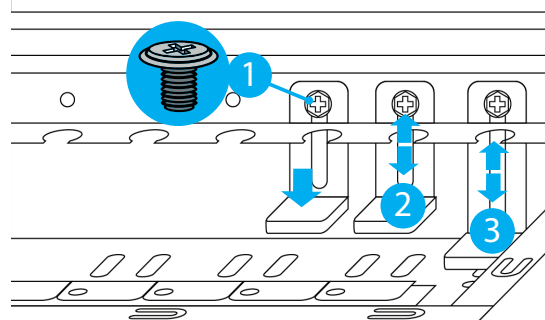


Figure 3.8.1.1. SC01-4504-10B

### 3.9 Dust filter

In every, each model of the server chassis listed in this manual, there is a retractable dust filter included, in a plastic border (width x height; 17x25.6 [cm]), at the front of the server chassis, on the left side. To correctly clean it or replace it, refer to the following instructions:

1. Open the front panel with a small door.
2. Pull out the dust panel, by grasping, beforehand, the handle on the left side of the door panel – Figures 3.9.1.1-3.
3. Remove the dust filter from the plastic border and then proceed with cleaning or replacing it – Figures 3.9.1.5.
4. Insert back the clean (or new) dust filter to the plastic border – Figures 3.9.1.4.
5. Slide the dust filter back inside (the exact opposite of the point 2) – Figures 3.9.1.1-3.

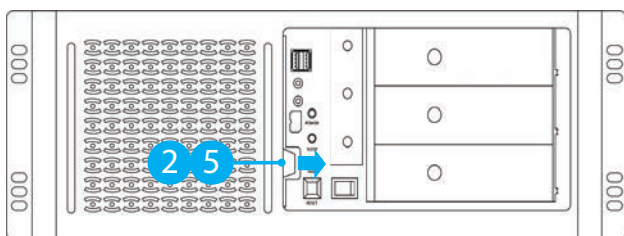


Figure 3.9.1.1. SC01-4504-10B

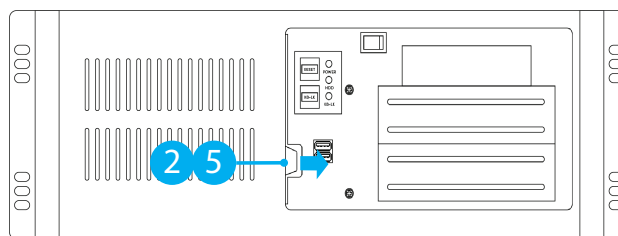


Figure 3.9.1.2. SC01-4504-10B

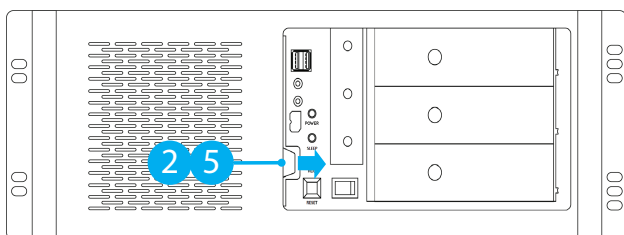


Figure 3.9.1.3. SC01-4504-10B

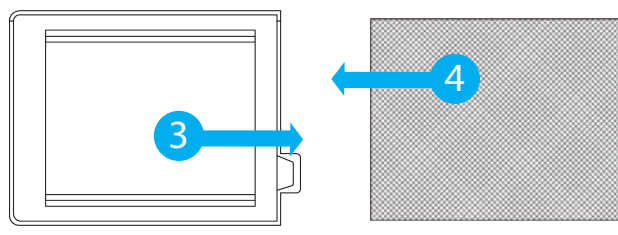


Figure 3.9.1.5. Border

Figure 3.9.1.4. Filter



### 3.10 Assembly within server cabinets / rack 19"

The manufacturer highly recommends to install rails on the server chassis before installing server chassis inside the rack cabinet. Especially if any additional component has been installed inside of the server chassis. Before installing the server chassis inside the ICT / 19" rack cabinet, the following precautions must be taken:

1. Before installing server chassis or its component, always make sure that the cabinet construction is stable.
2. Expand the cabinet by only one server chassis or other component, at a time. Expanding two or more server chassis or elements simultaneously, may cause the cabinet to become unstable.
3. Server chassis should be installed at the bottom of the cabinet, if that is the only element mounted inside of the rack cabinet. However, if the assembly takes place in a partially filled cabinet, install it in the corresponding location, from the bottom to the top, according to the weight of already mounted devices.
4. If the cabinet is equipped with stabilizers, install the stabilizers before installing or servicing the server chassis, inside the cabinet.
5. If the server chassis is not being serviced, always try to keep the front doors and all covers / panels of server chassis shut, in order to maintain proper chassis cooling circulation and prevent dust from entering inside.
6. In the case of assembly in a closed or multi-element ICT / 19" rack cabinet, the ambient temperature inside of the cabinet may be higher than the ambient temperature in the room. Therefore, you should consider installing the equipment in an environment compatible within the maximal range of acceptable ambient temperature, according to the manufacturer's technical specification.
7. It is highly recommended to use an uninterruptible power supply (UPS) system to protect the elements and users of server chassis from overvoltage's and surges, and to maintain the stability and operation of an entire system, in the event of a power failure.

If there are no contraindications to assembly of server chassis, prepare 4 M6 mounting screws (metal basket, mounting basis, nut and screw, are not included). Then, adhere to the following instructions:

1. Choose 12 free slots, in the row, each with the height of 1U, on vertical mounting rails of the ICT / 19" rack cabinet – Figure 3.10.1.1.
2. Use the server chassis as the reference, to match correctly the 12 holes on the vertical mounting rails, into which the M6 bolts have to be inserted – Figure 3.10.1.1.
3. Insert metal baskets, bent at the end, with mounting basis inside them, into the 12 designated holes (from the point no. (2)), in such way, so the bent ends of metal baskets will slide, click into and grab the designated holes on the vertical mounting rails, from the outside – Figure 3.10.1.1.
4. Again use the server chassis as a reference (just like in the point no. (2)) – Figure 3.10.1.1.
5. Insert on the bolts their corresponding nuts (If there are any) – Figure 3.10.1.1.
6. Insert and firmly screw the 12 bolts, from the outside, through the selected holes (point no. 2) of the vertical mounting rails. It is obligatory to remember and have those elements correctly screwed to the mounting basis of M6 bolt – Figure 3.10.1.1.

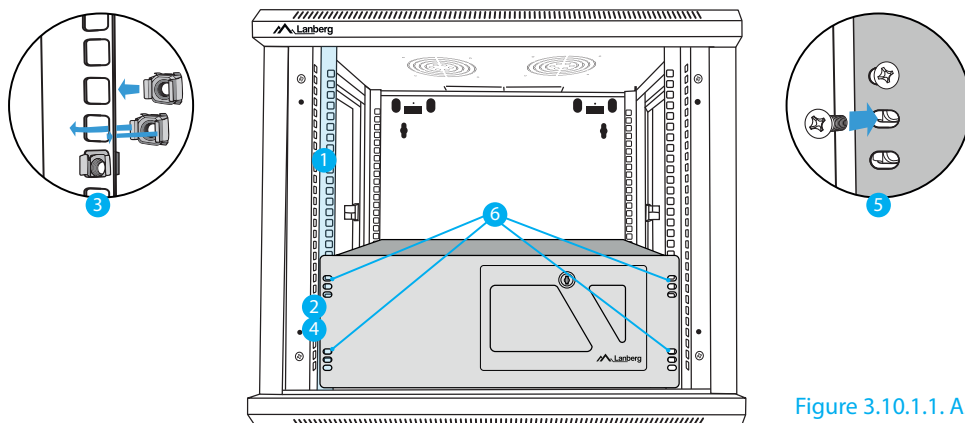


Figure 3.10.1.1. Assembling in rack

## 4. Wiring installation

### 4.1 Server chassis

In total the server chassis contains power, sleep, disc operation, key lock LEDs, power switches, reset buttons, key lock buttons, USB slots, 3.5 mm mini jack port and fans. In the technical specification of the section 2), there is detailed information in form of table, accurately specifying, which server chassis, has which exact elements. To use them, please connect the powerline to the server chassis, strictly following the instructions provided by the manufacturer of your motherboard. The meaning of the various statuses of elements such as: LEDs, buttons, switches, slots or fans during different situations should be verified in the manual, provided by the manufacturer of user's motherboard, to which the server chassis components have been connected.

It is compulsory to pay attention, and verify individual elements connection to the power supply circuit. Another point worth user's attention is verifying what impact does the eventual load has on the power supply wiring and / or any other connected device. When solving these particular problems, users should take into account the specification of a given wiring diagram, as well as, the adopted standards for the power lines and data lines of a given devices and / or components.

### 4.2 Front panel slots

USB port and / or mini jack 3.5 mm port, located on the front panels can only be used in accordance to the instructions provided by the manufacturer of your motherboard and / or devices, to which the other ends of the wiring is connected to. You must strictly follow the instructions and procedures to avoid undesirable situations, such as improper operation of sockets and devices connected to them.